ABSTRACT

This document is a compilation of 163 English-language abstracts concerning various aspects of education in Australia, Brazil, Bulgaria, Denmark, Finland, France, Hungary, Iceland, India, Israel, Japan, Mexico, Nigeria, Philippines, Thailand, UAR, U.S., USSR, and Yugoslavia. The abstracts are informative in nature and are approximately 1,500 words long each. They are based on documents submitted by each nation to the International Bureau of Education as representative of their best and most substantial work in the field of education. The titles and institutions appear in both translation and transliteration, for documents not written in English. Series No. 1, issued in September 1968, is numbered 1-67/E—19-67/E; series No. 2, issued in March 1969, is numbered 68.1E—68.55E; series No. 3, issued in October 1970, is numbered 70/1E—70/21E; series No. 4, issued in March, May, and September 1971 is numbered 1-68. (MB)
Co-operative Educational Abstracting Service (CEAS)

Since the first series of abstracts were issued, in the autumn of 1968, there has been a number of developments which appear worthy of recording and at the same time of inviting comments from our users.

Coverage. Certainly one of the most important developments has been a widening of the geographical distribution of the institutions and centres contributing to the service; these, in fact, have increased tenfold and all regions of the world are now represented. The intention for this year is to issue between 250 and 300 abstracts at quarterly intervals.

The Council of the IBE has endorsed a long-term (1971-76) programme designed to gradually provide a world-wide coverage with an annual output of between 1,500 and 2,000 abstracts.

A further development is the agreement recently established between the Secretariats of the Council of Europe and Unesco which provided for the respective abstracting services to be integrated under the operating control of Unesco:IBE.

Classification system. From the present series (No.4) it will be noted that in the top-right corner of the first page there is a new CEAS serial number (commencing from CEAS No.1) and each abstract is numbered sequentially. This serial numbering will continue in all future issues. The practice of giving each abstract a country number will be maintained.

Presentation and format. The modifications reflect the transfer of the project from Headquarters (Paris) to the IBE (Geneva) and the adoption of international standards for the paper size.

Distribution. For the time being the service will continue to be provided free to users. During 1972, however, it is planned to put the service on to a subscription basis, the details of which will be announced later. When CEAS becomes a subscription service, binders will be made available.

COMMENTS FROM CEAS USERS ARE WELCOMED
This working paper considers the implications both academic and financial of the introduction of year-round teaching to Australian universities. Year-round teaching may be introduced to: improve the quality of education; accelerate the rate of education of the existing student enrolment; allow additional students to enter the university; provide special courses for non-students.

The present academic calendar begins on 9 March and consists of three terms of respectively 10, 9 and 7 weeks with three weeks' vacation between each term. Annual examinations commence a week after the third term ends, and extend over four weeks with marking continuing until the middle of December or later. Student performance essentially depends on results in the annual examinations although minimum standards are required for essays and practical work during the year. Students are in residence and require the availability of facilities for approximately 30 weeks of the year. Usage of facilities during the summer vacation does not amount to more than 5 per cent of normal weekly usage during terms.

A consideration of American academic calendars shows that in 1968-1969 72.4 per cent of universities followed the semester system with two long terms and one short, while a small percentage used the quarter term system.
system of four equal terms and a small but rapidly growing number used the trimester system of three equal terms of 17 weeks each. In each of these systems one term comprised a voluntary summer session during which students could catch up on units they had failed or obtain credits and so accelerate their progress. Attendance during summer sessions was generally 30 per cent of that in the other terms and a selection of standard units was generally taught plus some experimental units.

American universities offer subjects by units while the Australian tradition has been to teach a large area of a given subject over nine months in which it is hoped that students have time to read, reflect, absorb and mature, and as a result a dimension is added to the quality of examination answers. Year-round teaching involves the adoption of some form of unit scheme and it is noteworthy that one university has entirely adopted the unit method within the traditional academic calendar while some departments at Monash have adopted the unit scheme in their subjects and have received favourable staff and student reactions. Arguments for the adoption of a unit scheme are based on the wide choice of units it is possible to offer, the advantages of being able to choose units across departmental boundaries, the greater informality of end of semester examining and the even spread of study and library usage it encourages. Many staff believe a subject should be taught over a full year to allow maturation by reading or reflection, and this approach could be accommodated in two or three equal terms as easily as into the present three unequal terms. It may be preferable, as is the case in many American universities, to examine first-year students on an annual basis to avoid premature grading.

In a discussion of any form of year-round teaching, whether with a voluntary or compulsory summer session the following considerations will have to be taken into account. The present distribution of staff time between teaching and research should not be disturbed and staggered vacations should be organized so that continuity of teaching is preserved while each staff member has one-quarter or one term of each year free. Staff will have to be increased more than proportionately to the number of students enrolled in order to allow the duplication of many classes, and this increase would have to be at all levels to allow for a proper balance. Statistically the majority of students take longer than the minimum time to complete their degrees, and opportunity may be made for some students to accelerate certain courses, others to
redeem failures and others to transfer between universities for special units. Both examinations and enrolment procedures under a unit system will need to be decentralized and made less formal as there will be less time for examinations and students will be enrolling for further units at the end of each semester. If there are to be several intakes during the year selection procedures may present some problem because of the present pattern of selecting as a result of one external annual examination. However if present experiments with aptitude tests for university selection are successful, these could be administered at intervals throughout the year. Other areas which would be affected include catering, maintenance, library and associated services, all of which would have to be reorganized for year-round operation.

A major question to be resolved is whether the summer session under any system is to be compulsory or voluntary, and consequently whether there is to be an increase in student enrolments. On a compulsory basis the semester system with its short summer session would involve an increase in student numbers of 20–25 per cent, the quarter system up to 33.3 per cent and the trimester system up to 50 per cent. An estimate of benefits (increased income due to redemption of unit failures within minimum course time) against costs (25 per cent increase in teaching hours, installation of air-conditioning and extension of plant) for a trimester system with no increase in student enrolment in a university the size of Monash shows a net social cost of $1,300,000, while a comparison of the cost of increasing student enrolment in a trimester system by 50 per cent (including 66.6 per cent increase in teaching hours, air-conditioning and extension of plant) with the cost of providing alternative traditional university places for those students shows a net social gain of some $2,000,000. On this basis it may be calculated that to offset the extra cost of the introduction of a trimester system, student enrolment at the majority of universities would have to increase by 15–20 per cent with benefits increasing with every further student enrolled.

There appears to be no conclusive arguments in favour of either the quarter system or the trimester system. However it is possible, that with small adjustments to equalize the lengths of present terms the quarter system may be more readily accepted. Furthermore although it may be desirable for all Australian universities to adopt a uniform calendar to allow for interchange of students for specialist courses, it
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would not be necessary for all universities to adopt year-round teaching — under a quarter system those who do not wish to do so would merely conform to the length of term without teaching a fourth term.
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In New South Wales teacher training is conducted either wholly at a university through a postgraduate one-year Diploma of Education course or a four-year Bachelor of Education course, wholly at a Department of Education teachers college, through a combination of courses provided partly by a teachers college and partly by a university, through courses offered by teachers colleges working in conjunction with institutions such as the National Art School, or through a course at a multi-purpose college of advanced education. The Higher Education Act passed in 1969 made it possible for individual single-purpose teachers colleges to be recognised as colleges of advanced education in which case they will come within the scope of the Advanced Education Board set up under the Act to administer and advise on colleges of advanced education, and opportunity will be provided for such colleges to be recognised as autonomous institutions. The Advanced Education Board is also empowered to make recommendations concerning the nomenclature for the academic awards to be given by such colleges. On both these matters the Board of Teacher Education will collaborate with the Advanced Education Board. An Advisory Board of Teacher Education has been in existence since 1966 with responsibility for reviewing the professional preparation of teachers, relationships between teachers colleges and universities, evaluation of courses of study and the provision of courses to
improve teachers qualifications and the following bill gives statutory powers to the Board.

The Board of Teacher Education will consist of not less than 14 and not more than 27 members (the minimum membership will deal only with government schools but the membership may be extended as the Board’s registration function is extended to other teachers), and includes 2-5 representatives of bodies or institutions employing persons engaged in teaching in prescribed institutions, 5-8 members of the administrative or teaching staff of bodies or institutions training teachers or offering courses in teacher training, 2-8 persons engaged in teaching in prescribed institutions, 3-4 persons with other appropriate experience, all appointed by the Governor on the nomination of the Minister, and two other members appointed by the Board. The chairman will be nominated by the Governor and the deputy chairman by the Board. The provisions of the Public Service Act of 1902 will not apply to or in respect of the appointment of a member and a member is not in his capacity as a member subject to the provisions of that Act.

The Board will keep a register to be called the Register of Teachers of persons entitled to be registered under the Act, and, with regard to the needs of the State and the resources available to the State to educate teachers will: foster research into teacher training and recommend and report to the Minister of Education by his request or of its own motion on teacher training; recommend to the Minister on the provision of scholarships, fellowships and financial assistance to bodies or institutions conducting or proposing to conduct such research; and confer and collaborate with the New South Wales Universities Board and the New South Wales Advanced Education Board on such matters as are within its powers and functions. The Board may appoint committees and delegate authority and will present an annual report to the Minister.

The Register of Teachers will be divided into parts, each relating to a particular class of teachers and will contain the name, date of registration, qualifications and experience of all persons entitled to be registered. The Board may cancel registration if the person does not apply for retention of his name at prescribed intervals, if he dies, becomes mentally unfit or ceases to possess the necessary qualifications. The Board has power to remove, suspend or caution a person according to the severity of the offence if he is convicted of a felony, shows habitual drunkenness or is guilty of misconduct rendering him unfit in the public interest to engage
in teaching. A person has the opportunity of defence at an inquiry by the Board and the right of appeal to a member of the Industrial Commission against a decision by the Board and his decision will be final and be given effect by the Board.

The Board has powers to make by-laws not inconsistent with this Act with respect to the conduct of the Board, the registration of teachers, registration and retention fees paid by teachers and all matters that are necessary and permitted to be prescribed for carrying out or giving effect to the Act.
This report considers the development in the field of educational television in Australia and its impact on the educational system. Three forms of instructional television are distinguished: total teaching - direct teaching relevant to a prescribed course (the method generally used in closed circuit television in Australia); supplementary teaching - direct teaching relevant to a prescribed course in which the teacher conducts preparatory and follow-up work and supplies additional information; and related enrichment, in which matter relevant to a prescribed course, but not directly available to the teacher, is provided.

Educational television in Australia is of the supplementary teaching and related enrichment type and is provided by the Australian Broadcasting Commission (ABC) which devotes about 5 per cent of its programme expenditure to educational broadcasts on radio and television and uses its own national channel network to relay programmes throughout each State. About one-fifth of school telecast time is occupied by imported related enrichment programmes, including foreign language sessions, while locally produced programmes include science, mathematics, history, geography, English, art and social studies for primary and secondary schools. A Schools Broadcast Committee exists in each State with the Director-General of Education as chairman and about 12 members representing the...
Education Department, universities, Catholic and independent schools. This committee relies on the advice of the various Subject Planning and Appraisal Committees made up of curriculum advisors, representatives of State and independent schools and the appropriate subject-teacher organizations under the chairmanship of the ABC Supervisor of Education. Education Department personnel are seconded to the ABC to act as TV teachers, liaison officers and curriculum advisors, the number varying from 14 to 1 depending on the State and the projects in hand. The ABC has set up a department staffed with officers trained in teaching methods and mass-media production techniques. Ideas and aims for a programme or series are worked out by the seconded teachers or the Planning and Appraisal Committees and submitted to the ABC for budgeting, scripting and preparation of teacher notes.

Television transmission began in 1956 and by 1964 some 399 separate educational programmes were televised throughout Australia. After requests for a separate education channel a committee of inquiry was set up by the Commonwealth Government and in 1966 reported (Weeden Report) that educational television was primarily a matter for State authorities, that it should be developed as an integral part of State education systems, that initially the facilities of national and commercial stations should be used but ultimately there should be a separate network of education television stations. The Commonwealth Government decided after consideration of the report that the present facilities were adequate now and in the foreseeable future.

In reviewing the impact of educational television in the education system the author considers the nature of the need which television is seen as fulfilling and the estimation of its place and value in education by State and Federal authorities, schools, teachers and those involved in teacher training as measured by activity at these levels. He concludes in agreement with the findings of the Weeden Report that its function is to provide "a variety of services for which a substantial but not desperate need exists", that is to provide related enrichment and supplementary teaching programmes which carry connotations of teacher involvement. This view is in harmony with recent moves in curriculum development away from the teacher-centred direct-teaching approach and which demand programmes that are motivational and enriching. A further function is the use of telecasts to introduce teachers en masse to a new series of programmes, and as a full-day in-service training programme on aspects of teaching.
The States vary widely in the importance they place on educational television. Tasmania provides receivers free to all schools, in other States subsidies towards the cost are available and the number of schools equipped varies from 25 to 53 per cent. There is little co-ordination between States and between States and Federal authorities in the production of joint programmes. Agreement on a common policy on the place of educational television is also needed to permit the ABC, which has a limited budget and an obligation to provide a proportional parity to all States, to provide extra finance to those States which have almost reached their limit and wish to expand.

A survey of schools in Victoria in 1968 showed that about half the primary schools equipped with receivers viewed 60-100 per cent of programmes at that level, while less than 30 per cent of equipped secondary schools viewed the same proportion, probably due to the greater difficulties encountered with time-tabling at the secondary level. A major consideration is the need for teachers to be trained in the use of television techniques and to be made aware of changes of emphasis in programmes. A survey carried out in 1969 of 55 institutions concerned with teacher training showed great disparity in efforts to train teachers in the use of television as an aid: 33 per cent offered no lectures in the subject; 36 per cent offered 6 or fewer, while one offered 19 lectures and required students to write up a detailed study of at least one telecast a year. An experiment in Tasmania in 1965-1966 in which teachers were involved at all stages of the planning and production of a new series showed the value of this approach. This, however, is usually not done and the ABC notes on telecasts which are provided are not generally sufficient to permit the teacher to incorporate the programme into the teaching approach except as a useful supplement.

Two developments which have taken place are the publication of textbooks to be used in conjunction with a series of telecasts and the production of related enrichment programmes with explanatory schedules showing how the material can be used for various subjects and grades.

It has been shown that the most effective use of film material includes the following stages: introduction to the film, pointing out specific aspects (requires pre-viewing by teacher); screening of the film; discussion; rescreening 24 hours later. This use of telecast material can only be made with a videotape recorder which the author considers
essential equipment if the teacher is to have full control over the impact the material is to have in his whole teaching approach to the subject. Not only does the use of a videotape recorder remove time-tableing difficulties, but segments can be lifted out and used as teaching aids in any way and at any time the teacher wishes.

The final section of this study describes a research project now in progress (Malvern Project) using closed circuit television and videotape recorders to develop procedures and methods whereby schools can use their videotape recorders to develop their own programmes as well as using ABC telecasts. Four schools, a State technical school, a State high school, a boys' and a girls' independent school will each be equipped with videotape recorders. The staffs working independently will examine their needs and discuss with project staff how television can assist in meeting those needs, and staff training will be provided in the use of videotape recorders in the classroom and in basic production techniques. A mobile production unit with production technical staff will circulate around the schools and provide recording facilities. There will be a gradual increase in the number of schools served until the optimum number is reached when an examination of costs will be made to determine the economic feasibility of such a system. A summary of propositions about educational television which form the basis of the project is included.
In this survey of childcare facilities for pre-school children of working mothers in Australia the term 'child care centres' is taken to mean only those centres providing full-day care and therefore excludes kindergartens, play centres, nursery schools and child-minding centres which provide care for part of the day. It also excludes the 20 child-minding centres with a total capacity of 1,200 children run at Commonwealth hostels which provide accommodation for migrant workers and their dependants on first arrival in Australia.

Information on the number of working women with pre-school children is not yet available but the 1966 census showed that in that year there were in Australia 842,331 married women aged 20-34 years of whom 247,963 or 29.4 per cent were working, and 33,162 separated, divorced or widowed women aged 20-34 years of whom 19,362 or 58.4 per cent were working. The number of working women in these groups has almost doubled since 1954. In 1966 there were 1,384,090 children under six years of age of whom approximately 13,500 were in child care centres. In New South Wales of the 310,091 married women aged 20-34, 30.7 per cent were working while of the 488,449 children under six, 5,000 were in child care centres; corresponding figures for other States are Victoria 235,947 married women (32.9 per cent working) 386,987 children under 6 (4,500 in
centres); Queensland, 116,074 married women (23.2 per cent working), 206,300 children under 6 (1,000 in centres); South Australia, 79,431 married women (28.8 per cent working), 130,779 children under 6 (1,000 in centres); Western Australia, 61,222 married women (24.3 per cent working) 103,020 children under 6 (428 in centres); Tasmania, 27,427 married women (24.4 per cent working) 48,898 children under 6 (400 in centres); Australian Capital Territory, 8,616 married women (32.9 per cent working) 13,986 children under 6 (200 in centres); Northern Territory, 3,423 married women (30.9 per cent working) 5,773 children under 6 (100 in centres).

In 1968-1969 there were 555 child care centres in Australia with the capacity to provide full-day care for approximately 14,000 children. The majority of these centres were in New South Wales (214) and Victoria (175) and two-thirds of the total number of centres were in the Sydney (177) and Melbourne (164) metropolitan areas. Similarly in other States the vast majority of centres were in the capital city metropolitan area, for example South Australia where 2 of the 61 centres were outside Adelaide.

The legislation, regulations and conditions to be observed in child care centres vary from State to State and sometimes within a State. In all States except South Australia and Queensland centres must be registered with the State authority: in these two States registration is subject to local government control and conditions vary within the States. Not all local government authorities in South Australia and Queensland have enacted by-laws on child care centres. Regulations are laid down as to registration, accommodation and facilities to be provided, quality and number of staff, and all centres are subject to inspection by the relevant authority. Regulations on these matters may be specific or general. In Victoria and parts of Queensland a centre must be registered if five or more children are to be cared for, in New South Wales the minimum is two, in Tasmania one, while in other States regulations specify any premises offering care for children under six. In some States a maximum enrolment is laid down, e.g. New South Wales where not more than 30 babies under two or 60 children under six may be accepted, but in all States registering authorities may determine the maximum number of children that may be cared for in any one centre. The staff:child ratio is specified in most States and varies from 1 adult for every 5 children under two in Western Australia to 1 adult for every 15 children aged three
to five in Victoria. In all States at least one person trained in some aspect of child care is required to be in full-time attendance and more may be specified in some States depending on the size of the group.

Of the 555 child care centres, 515 were run privately as a commercial enterprise, on a non-profit basis or as co-operatives. The charge for each child on a full-day 5-day-a-week basis varied between $6 and $12 per week. Two centres, both in Melbourne were provided by employers as a service to their employees and charged $6 per week. None of these centres received any form of subsidy. There were 40 centres catering for 2,171 children which were run by local government councils, voluntary committees, and organizations such as the Sydney Day Nursery Association and the Victorian Association of Day Nurseries; 19 of these centres were in New South Wales and 14 in Victoria. Almost without exception the centres receiving subsidy catered for children from families with special needs, e.g. one-parent families, severe economic stress or unsatisfactory or unhealthy physical environment. Subsidies came from State Governments or local councils and included capital grants towards building costs, maintenance subsidies, rent-free premises or payment of rates. Fees were frequently based on parental income and varied from nothing to $9 per week.
In each Australian State the authority mainly concerned with the practical training of artists and art teachers for schools is the State authority responsible for technical education. Art subjects in schools are non-vocational while art education at the University of Melbourne and Sydney is academic rather than practical. This seminar was organized to examine the conditions under which creative artists might be trained and to make recommendations to State and Commonwealth Governments in the hope that improvement in this field would lead to higher standards of purpose and attainment. The report contains summaries of addresses to the seminar, discussions on aspects of art education and recommendations.

It was agreed that there were disadvantages both in the large single school of up to 2,000 students found in some States where because of accommodation problems the school was separated into widely dispersed components which precluded interaction, and in the small school of up to 200 students where the small number of staff could not satisfy the demand for specialist advice and where course electives and facilities were restricted. It is recommended that consideration be given to adopting the pattern in Victoria of several semi-autonomous government art schools. Existing schools, being few, are forced to be all-embracing in their coverage of both industrial design and fine arts.
and extensions to staff, working facilities and libraries are needed. The large number of part-time students attending for "recreational" purposes tend to overstrain the resources of the schools and it is considered that full-time study should be encouraged by a reassessment of the need for scholarships for students other than teacher-trainees. With regard to the general administration of schools it was felt that the requirements of art and design courses were changing so rapidly that improved interchange between administrators, staff and students was desirable and to this end it was suggested that consideration be given to simplifying the long administrative chain in some States between Minister for Education and school; that student and staff-student associations be encouraged; and that financial provisions be made for regular meetings of delegates representing administrators, staff and students from all States.

Standards of entry to art schools vary between States although all schools require evidence of specific art ability. Some States have an interviewing panel and it was considered desirable that this should be general practice. Large centralized schools which are standard in Australia may provide a variety of courses but most are too inflexible in their administration of them. It is recommended that the length of the diploma course be reduced from five to four years and that a more liberal policy of entry be adopted for first-year students with rigorous selection procedures at the end of first year. First-year students should have the best qualified teachers and should undertake a common first year to give the opportunity for a range of skills and creative abilities to be developed. In some States at present there is extreme fragmentation and close parallels to secondary school patterns of organization which are not desirable. Second-year students should be allowed to select their courses, with guidance, from available study units and the opportunity to study subjects in depth should be provided. Timetables should be drawn up to allow the greatest flexibility and be periodically suspended to allow interaction between areas of study. Facilities should be available to students at weekends and during vacations, and closer liaison between State art galleries and schools is desirable. Teacher-trainees should not be committed to a teaching career until their courses are concluded, and the need for governmental support for State schools of post-graduate study was accepted by the seminar.
With regard to teaching and examinations, the importance was stressed of the professional artist as teacher and it was recommended that attention should be paid to the employment of part-time and visiting artists and that studio facilities be provided for part-time and full-time staff. Refresher courses would keep staff acquainted with developments interstate and overseas; travel grants to assist interchange of staff between States and for overseas study are advocated. The present practice of awarding diplomas on the basis of a single final examination should be replaced by cumulative assessment with borderline cases being assessed by outside adjudicators.

The general failure of secondary schools to produce students ready for art school gave rise to some concern. Art history and appreciation should be retained but much more practical teaching is required and the seminar therefore recommends: that art be accepted as a matriculation subject in all States; that the number of specialist art teachers be greatly increased; and that the practice in teachers colleges of training teachers in art as a sideline to other subjects be discontinued or drastically changed.

A resolution was unanimously passed for the formation of an Australian Association for Art and Design Education, the membership of which will include representatives of institutions concerned with the training of professional artists and designers, together with those having a professional interest in its promotion. Within the proposed general framework of promoting the teaching of art and design, the association is expected to establish and maintain contact between the art and design schools, to formulate recommendations concerning the training of artists and designers, and to initiate programmes of research into selected aspects of art and design education.
This is a discussion of an experimental aptitude-type test battery which measures aptitude for tertiary education, developed by the Australian Council for Educational Research at the request of the Commonwealth Department of Education and Science. Use of the battery will separate the selection for tertiary education from the assessment of quality and range of achievement in the secondary school. The aim is not primarily to provide a better predictor of academic success but to free secondary education from some of the pressures involved in the present system. It is not expected that any marked change in the pattern of tertiary success will take place as the result of new selection procedures alone.

The present pattern of university entrance in all States is an achievement-type subject-centred public external examination taken at the end of 12 or 13 years of formal schooling. It is taken by all students completing the final year of secondary education whether they proceed to tertiary education or not. The retention rate in secondary education has increased rapidly over the last 10 years so that a lower proportion of 18- and 19-year-olds in 1966 underwent tertiary education compared with the number of 16- and 17-year-olds completing secondary education than in either the United States or Great Britain. Those concerned with secondary education have tended
increasingly to see it as an end in itself and increasingly demand independence in what and how they teach and how they assess it. School criticism of the present examination has centred on the domination that an external subject-centred examination holds over curricula and teaching throughout the secondary school, thus making it impossible to develop a philosophy aimed at catering for the full range of ability of all students. Furthermore university staff criticize its low predictive power and the increasing burden of marking which falls on them. General comments have been made on the suitability or otherwise of the examination as a predictor of vocational success as a selection barrier for higher studies and of the unreliability of what are primarily essay-type tests.

It was decided to develop a battery of tests taken over several days to permit the use of more extensive and complex material of educational relevance and include a measure of students' written expression. Two series of tests were produced, Series A in August 1968 and Series B in July 1969. Before planning the tests, discussions were held with university teachers to obtain indications of the kinds of skills and abilities considered centrally important in tertiary education. At all stages of planning the material was subjected to panel discussions including ACER staff and outside specialists in relevant subject areas and teaching levels. To avoid the criticisms of similar tests in the United States and Australia, care was taken that the items were so constructed that bright students did not see justification for answers other than those keyed as correct by the test constructors. Arrangements were made for those inexperienced in objective tests to have access to past papers and practice work. It may be argued that any test of developed reasoning and comprehension will favour those already culturally and economically privileged but as these students do best in an academically oriented system, any decision to use educational resources in such a way as to redress the balance and change the pattern of advantage would be a social and political decision.

Of the first five tests produced (Series A), four were multiple-choice, objectively-scored tests in which the student was presented with material new to him selected from sources which did not form part of any school syllabus. Care was taken that the material presented was such that a teacher in the related subject area would regard it as educationally relevant and interesting, and that the questions asked were
of the kind which an imaginative and competent teacher would put. In the social sciences and humanities, contrasting complementary viewpoints on a single theme and a variety of types of material were used to allow for a more sophisticated response. The objective multiple-choice papers were: Paper 1, Quantitative reasoning (1½ hours Series A; 2 hours Series B); Paper 2, Comprehension and reasoning in the physical and biological sciences (1½ hours Series A); Paper 4, Comprehension and reasoning in the social sciences (1½ hours Series A and B); Paper 5, a humanities paper intended to measure ability to cope with intellectual ideas cutting across the two cultures and sensitivity to structure, pattern, form and style in visual material, art and literature (Series A 1½ hours, Series B 2 hours). Paper 3 is an essay paper requiring the student to write four different essays. ACER research has shown that it is possible to mark large numbers of essays with as high a reliability as for each of the objective multiple-choice tests.

Field testing was carried out on matriculation students in Victoria and South Australia and on first-year teachers college students. The data thus obtained included an estimate of the difficulty and discrimination index for each question: the ability of the question to discriminate between "good" and "poor" students used the student's performance on the trial test as a whole and on a particular unit or set of units as the criterion. In 1968 all final-year school students in three States were tested in addition to some first-year students at two universities. A second testing of school students took place in July 1969 and tests were also used at residential colleges at the University of Melbourne, a college of advanced education and a teachers college.

Available data show that the correlation between matriculation quota scores (essentially the results on a student's best three matriculation subjects) and the total TEEP (Tertiary Entrance Examination Project) battery score for about 400 students who applied for scholarships at University of Melbourne residential colleges was 0.54 and would probably have been higher if the comparison between the best three TEEP scores and matriculation quota scores were used. Correlations of total TEEP scores with final school examinations for first-year students tested at the Australian National University in 1968 ranged from 0.53 for 108 science students to 0.12 for 25 arts/law students with 0.51 for 135 arts students falling between. Testing of first-year students was marred by poor attendance and motivation of the volunteers at some sessions.
Use of the TEEP battery will allow schools to develop experimentation and diversity in teaching and assessment. In the matter of assessing the achievement of school objectives it is suggested that research might be carried out into the moderation of internal assessments by the co-operative efforts of teachers from a number of schools in a region. This is being considered by Victoria and Tasmania. Alternatively a series of standardized and generalized achievement tests might be externally constructed but administered and marked within the school with State-wide norms available for comparison. These need not be used by all schools and need form only part of the teacher's assessment in a particular subject.

The TEEP battery does not require a uniform syllabus to be taught and allows flexibility in the time at which the tests are carried out and the length of time between each test. A student may sit for all the tests or only those required by the faculty he wishes to enter, although it is hoped that the essay paper will always be included. The present battery is experimental and the present view is that a suitable battery will have six tests, two in the technical area, two in the social sciences, one written expression paper and one derived from Paper 5. Specific aptitude tests in academic areas such as foreign languages and music may be added as required. It is suggested that an Australia or State-wide Tertiary Admissions Board be set up to be responsible for the preparation of tests, scaling and distribution of results together with an efficient clearing-house system.

Papers 1, 4 and 5 Series A are included in the appendix.

Abstract prepared by Australian Council of Educational Research
The committee was appointed in July 1969 under the chairmanship of Dr. W.C. Radford to review the system of public examinations for Queensland secondary school students and to make recommendations for the assessment of students' achievements.

On reviewing secondary examining procedures in Canada, New Zealand, the United States of America, England and Scotland, it was found that: (a) all countries except Scotland use school assessment at some point in their system for assessing performance in secondary school studies; (b) where admission to tertiary education was not open to everyone certified as fit to proceed to such education, some system of external testing is used to give an order of merit; and (c) all the above countries are reviewing subjects and syllabuses available at all levels where public examinations operate, and the techniques used in the examinations.

In Queensland, public examinations at junior and senior level are used as measures of past achievement and as predictors of future success. In both cases measurement is absolute with regard to the individual student, and relative, providing a rank order of students. Subjects for the Junior Certificate examination, which is taken at the end of grade 10, are studied in the main for three years and are prescribed by
the Board of Junior Secondary School Studies on the recommendations of a special committee for each subject appointed by the Board. The Junior Certificate is issued by the Department of Education on the recommendation of the Board and shows a numerical rating from 7 to 1 in each subject in which the student is examined. The Board of Senior Secondary School Studies performs the same functions for students in the final two years of secondary education and a Senior Certificate is awarded by the University of Queensland, acting as agent of the Board, showing results in the Senior Certificate examination.

In a general consideration of external examinations the committee reviewed the arguments in favour of their retention — i.e. the discipline and incentive they provide both for students and teachers and their value as objective measurements — and the arguments against, i.e. the constriction they place on student, teacher and school and the lack of assessment of qualities such as moral and social attitudes and independence of mind which the school may consider important. It was concluded that although public examinations did give incentives to learn particular things in particular ways it did not agree that a course of study would not be effectively treated by a teacher or approached by a student unless terminated by an examination of some kind. The traditional view of examinations as tools of selection and elimination is being replaced by the view that they should determine where potential lies in a student and how it may best be developed. It is considered that internal school assessments backed up by moderation procedures which ensure comparability of standards between schools fulfil this function more satisfactorily. These assessments reflect the collective judgement of a number of people over a period of time, may make use of a greater variety of examining techniques and take into account more features of a student's activities, eliminate "cramming" and are less likely to lead to rigidity in teaching.

It was recommended that because of the rising student retention rate in secondary schools the five years of secondary education should be regarded as a whole instead of two stages as at present and that the two Boards should be replaced by a statutory Board of Secondary School Studies. Members of the Board should be appointed by the Governor in Council and include a chairman, representatives of State and independent schools, State and independent teachers' associations, teachers colleges, colleges of advanced education and universities. Officers of the Board will include an executive officer, research staff and a part-time moderator for each subject or
group of subjects approved by the Board, and the Board should have the assistance of subject advisory committees, the moderation committee and other committees, executive or advisory, that may be required.

With regard to public examinations it was recommended that the examinations for the Junior Certificate should be replaced in 1971 and for the Senior Certificate in 1972 by school assessment except for correspondence and certain part-time students for whom an external examination should be available. The titles of the certificates should be retained as should the numerical grading in each subject but the Junior Certificate should be awarded by the Board on the recommendation of the school which will issue the certificate and the Senior Certificate should be awarded and issued by the Board on the recommendation of the school. To ensure comparability of standards between schools, all schools wishing to issue certificates should accept Board moderation of their standards of assessment. Moderation procedures will be carried out through a Moderation Committee composed of a chief moderator in each subject or group of subjects plus a full-time executive officer and research staff which will inform the Board on current examining practices and distribute information on syllabuses and assessment of interest to schools and to the Board. Inspectors of schools, selected teachers and staff members should be used as agents of the Board in the moderation procedures and, in the early stages, inspectors and specially qualified teachers should be called on for liaison work with schools and the public. In the early stages of the scheme, previous Junior and Senior Examination results should be used by schools as guides to the establishment of ratings and the Board should periodically set and mark reference examinations to be used as guides by moderators and schools.

With respect to syllabuses the committee recommended that two groups of subjects should appear on the certificates: (i) those Board-approved subjects for which syllabuses are devised or recommended by subject advisory committees, which will include a majority of teachers, and which will appear on the certificates as Board subjects; and (ii) subjects initiated by individual schools or subject associations which may appear on the certificates as Board subjects only after approval by the Board. Within the broad framework of an approved syllabus and in accordance with clearly stated objectives for the syllabus, schools should have freedom to choose detailed content and method of presentation, and
within the moderation system, freedom in methods of assessment of student performance.

The Senior Examination was traditionally intended as a selection examination for university entrance and syllabuses were devised to that end. However with increasing retention rates half of the students who now remain to Senior Certificate level do not proceed immediately to full-time tertiary study. It is therefore necessary to design courses which will meet the need of all grade 12 students while not holding back the academically able. It was recommended that all syllabuses for grade 11 and 12 should be prepared in half-yearly units to be called semester units with each unit having clearly stated objectives and being complete in itself. Students wishing to pursue certain subjects in depth could take successive units while others could study a greater variety of subjects in less depth.

For tertiary institutions using the present Senior Certificate examination as the entrance requirement it is suggested that a combination of school assessment, scholastic aptitude tests and tests of the type drawn up by the Australian Council for Educational Research (Tertiary Entrance Examination Project - TEEP) be used. Where an order of merit for scholarships or other purposes is required a combination of scaled school assessments and TEEP type tests could be used weighted on a 50-50 basis.
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<td>Title</td>
<td>Decree of the President of the UAR concerning Act No.16 on the subject of Private Education; with explanatory note</td>
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This Act defines the private school as any non-governmental establishment principally or secondarily engaged in education, vocational training or any aspect of general or technical education below the level of higher education. It does not regard as private schools: cultural centres and institutes established in the UAR by foreign States in virtue of cultural agreements; schools reserved for the children of members of a diplomatic or consular mission; and day nurseries, whether independent or attached to the various schools.

Private schools are established with a view to the realization of all or some of the following objectives: assistance in the field of general or technical education in accordance with policies and curricula sanctioned by the Ministry; expansion of the study of foreign languages side by side with the prescribed curricula; and the study of special curricula within the framework of the provisions of the present Act.

The proprietor of a private school must be a public or private legal person enjoying UAR nationality or an Arab public or private legal person approved by the Minister of Education (private school proprietors already approved at the time of the entry into force of this Act shall be exempted from this condition), and must also be capable of discharging the financial...
obligations of the school. The extent of those obligations and the criteria of financial sufficiency shall be determined by decree of the Minister of Education.

For a private school to be established, the necessary permit must be issued at least one month before the start of the academic year. The Director of Education in the Governorate concerned may waive this condition if there are grounds for doing so, provided that studies do not begin more than two weeks later than those in similar public schools. Any school opened without previous permission shall be officially closed by decree of the Governor after consultation with the Directorate of Education. If any school so closed is reopened before the requisite permit has been obtained, its proprietor shall incur a fine of £100 and confiscation of the school's contents. The level of education or premises may not be changed without prior permission.

The Act provides that every private school shall have an advisory committee for its administration and a board of management, and that every secondary school, whether general or technical, shall have a students' union. Every private school must also adopt internal regulations covering: its system of administration; the specific functions of each employee and the workload of each teacher; the method of appointing teachers and the qualifications required of them, with full details of any financial matters affecting them. The regulations must also specify the categories of school fees prescribed as well as any supplementary charges and the purposes for which these are applied (any discrimination between pupils in this matter on grounds of nationality or religion being prohibited); and provide details of boarding arrangements. They must further state the conditions governing the admission of pupils, the length of time to be spent by them in each class, the possibility of repetition, and the age limits prescribed for each class. The internal regulations must also specify the size of each class, the programmes and curricula of the school, the system of final, entrance, end-of-term and promotion examinations, and the principles governing exemption from payment of fees, with due regard for equality of opportunity based on the pupil's social condition and his total grades.

Local councils may grant private schools financial assistance, some of which may take the form of incentive payments to private schools rendering outstanding educational services. In no circumstances may these schools accept contributions from
a foreign or international source without first obtaining the agreement of the Ministry of Education.

With regard to the system of study and examinations in these schools, the Act stipulates that, where permission is granted to a private school to follow a curriculum different from that of government schools, the school must ensure that its pupils, whether UAR citizens or foreign nationals resident in the UAR, receive instruction, at a level determined by the Ministry, in: Arabic, religion, the history and geography of the Arab countries, civics and Arab society.

The Ministry of Education may authorize the establishment in private schools of special courses designed to prepare pupils for a general examination equivalent to the General Secondary Certificate Examination or for other examinations open to adults or to scholarship holders from Arab countries who wish to sit for them. Accordingly, the schools in question may be permitted, by decision of the Minister, to exempt certain pupils from certain entrance qualifications, promotion examinations and general examinations in view of their special circumstances. Private schools must provide religious instruction for their pupils in accordance with each pupil's religion and in conformity with the curriculum established by the Ministry. No school may instruct its pupils in a religion other than their own.

The Minister of Education, acting in conjunction with the Minister of Labour, shall issue a decree codifying the principles governing the rights and obligations of private school proprietors and employees respectively; the relations of both these groups to the competent Directorate of Education and to the Ministry; the regulations governing appointments, discipline, separation from service, working hours and period of probation; and other principles relating to the conditions of persons employed in private schools, whose salaries upon appointment must in any event be at least equal to those of their counterparts in government schools. The Act further provides for the establishment, in the Directorate of Education of each Governorate, of a committee to be known as the Committee for Private Education Affairs. There shall also be established in the Ministry of Education a Council for Private Education Affairs, on which the proprietors of private schools shall be represented and which shall be responsible for reviewing private education and the ways and means of developing it, and for taking the necessary measures in the event of an infringement of the provisions of the present Act.
The Act also establishes in the Ministry of Education a Fund for the Consolidation of Private Schools, administered by the Council for Private Education Affairs, to be used for: the financing of private schools placed under financial and administrative supervision; compensation to owners of private schools transformed into government schools under the provisions of the law; subventions to certain private schools to supplement the salaries they pay to their employees, and the granting of loans to enable them to discharge their financial obligations in accordance with the principles laid down by the Board of Administration of the Fund and approved by the Minister of Education.

The transitional provisions of the Act permit private schools already in existence and previously licensed to continue to operate, provided that they carry out all the new conditions within a year. The regulation concerning ownership of private schools shall not apply to an existing proprietor during his lifetime; and the regulation concerning the qualification of teachers will not apply to persons currently employed in private schools until the completion of their service.

The Act is accompanied by an explanatory note pointing out that among its important effects will be that of removing private schools from the realm of commerce and exploitation by establishing rules for the assessment of school fees, laying down a specific level of qualification for teachers employed in the schools in question, guaranteeing the rights of persons employed in those schools in accordance with principles determined by the Ministry, and State supervision of private education with a view to the prevention of any malpractice or exploitation.

Abstract prepared by the Educational Documentation and Research Centre, Cairo.
Primary school teachers of both sexes are trained in regional centres with courses of five years after the completion of preparatory school (lower secondary cycle, grades 7-9). Up to 1969 studies in these centres were specialized from the start: general education, technical education, physical training, music, and domestic economy. In 1969-1970, this system is to be changed. Students will follow a general education course lasting three years and will thereafter specialize, choosing from five branches: a section that will include religious education, Arabic language and social sciences; a section grouping mathematics and science plus agriculture (for boys) or domestic economy (for girls); physical training; technical education; and music.

The centres prepare primary school teachers to be class teachers for grades 1-4, and teachers of specific subjects in grades 5 and 6. The staff are highly qualified, and there is a view that they should hold the M.A. or Ph.D. degrees. Administratively, the centres are directly supervised by the deputy director of the educational zone, while the technical control and supervision of their activities is the responsibility of senior technical guidance officers. Head teachers and unqualified primary school teachers may
enrol and become qualified, in accordance with special regulations. The best students graduating from the centres may proceed to more advanced studies at higher teacher-training colleges. Under the new system, each centre is to have experimental primary schools attached to it.

Teachers of general education subjects in primary and secondary schools are trained either by a one-year professional college attached to Ain Shams University after passing through the faculty of arts or science, or by enrolling in teacher-training colleges (which are also university faculties) for a period of 4 years after completing secondary school. Professional training is given at the same time as general education, in particular in the last two years. These colleges provide courses in the English and French language department, in science and mathematics, or in social sciences.

Special schools for technical education teachers were created in 1957 and expanded further in 1968; courses take four years after secondary school. They are similar to the training-teacher colleges but are not attached to universities and are controlled by the Ministry of Higher Education. Similar institutes prepare teachers in music, physical training, fine arts and domestic economy.

In-service training for teachers is carried out in centres in the educational zones, or in specialized schools. Three types of course occur: providing qualifications for non-qualified teachers; refresher courses; and preparation for higher posts. Periods of training vary from one year to a few days. Teacher-training colleges and university faculties participate with the training department of the Ministry of Education in this work. In-service training is taken into account for promotion.

Status

In the UAR, general education teachers enjoy the same status as public servants, and they are treated in the same way as public servants with equivalent diplomas, as regards salaries and salary scales, financial allocations and promotions, conditions relative to pensions, leave, supplementary allocations, etc. Competent, highly-qualified teachers are able to ascend the hierarchical and salary ladder as far as the post of under-secretary. One condition for promotion is that candidate should have received excellent gradings for a period
of three years and must have served for a specific length of time in their particular branch.

University teacher-trainers are organized in a special way, and enjoy greater privileges. Promotion depends on professional performance and length of service in a particular post.

All teachers belong to a professional association, which looks after their interests, from the professional, social and economic aspects, while the Ministries of Education and of Higher Education offer comparable assistance.

Supply and demand

Despite efforts to prepare enough qualified teachers for the schools, the educational authorities are aware that there is a shortage of teachers for certain subjects, in particular, for foreign languages, science and mathematics. The shortage is aggravated by the country's policy of extending the range of its international co-operation, by seconding national teachers to friendly countries and to the Arab States, and by allowing these teachers to enter into personal agreements with those States. The UAR has adopted a number of compensatory measures: employing unqualified teachers and providing them with in-service training; having recourse to teachers of allied subjects and training them to teach those subjects for which there is a shortage; increasing the teachers' work-load and granting additional pay; raising the number of children in a class beyond the prescribed limits; and calling upon the services of those who have retired. At the same time, efforts are directed to raising the number of teacher-training establishments and, where necessary, to the setting up of intensive training courses.

Notwithstanding the efforts to attract students to teacher-training institutes, enrolments in some branches, especially in science and mathematics, are low; the lack of interest displayed by students is due to the fact that the profession is a tiring one and poorly remunerated. Statistics also show that enrolments in certain branches and institutes are declining, perhaps because of a surplus of graduates. Enrolments of technical education teachers, on the other hand, are on the increase because of the greater attention paid to this type of education in overall development plans.
International co-operation

Besides the Government's policy of seconding teachers to other Arab States the desire to reinforce international co-operation may be seen in these measures: acceptance of scholarships offered by various countries for teacher training; despatch of teachers on missions, at Government expense; participation in different activities for teachers, organized by regional and international organizations; offer of scholarships to nationals of various countries, for training as instructors in the UAR; approval of exchanges between local teachers and teachers of other countries; negotiation of cultural and educational agreements, embodying conditions affecting teachers.

Trends

Some distinctive recent features in teacher training include: the consideration of all types of teacher-training institutes as experimental and research institutions; the raising of the cultural level of students, in particular, of those in the lower stage of teacher institutes; modifications in the ratio of special subjects so as to conform to the country's latest trends and requirements, especially in the fields of science, mathematics and subjects of national importance; opportunities for co-education in all teacher-training institutes; training students to introduce innovations in their own environment; setting "second chance" examinations for students to obtain promotion, especially during the lower stage; setting-up of advisory councils in all types of teacher-training institutes; introduction of teacher-training institutes within universities and development of more colleges for this purpose; creation and expansion of technical teacher-training institutes. It is also expected that the State will take steps, when circumstances permit, to raise the educational standard of primary education teachers to university level.

Abstract prepared by the Educational Documentation and Research Centre, Cairo
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<td>Primary education in the United Arab Republic, its development and organization</td>
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<td>Cairo, Centre for Educational Documentation and Research, Ministry of Education, 1969. 31 p. (stencil)</td>
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<td>This comprehensive survey describes the growth of primary schooling in the 19th and 20th centuries. Different types of school were finally unified in 1951 and in 1953 all fees were abolished and primary certificate examinations discontinued.</td>
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In 1956, a new status was given to primary education by Law No.213: the duration of schooling was fixed at six years, it was made compulsory for all pupils until they took the examination that would admit them to the next (preparatory) stage; it was to contain mixed classes of boys and girls; subjects touching on social, economic and health topics were to be introduced in the lessons; and promotion from one grade to the next was based on attendance alone.

The Ministry of Education found it difficult to generalize primary education with the financial and human resources available, and, as a result, extended further the system of morning and afternoon schools. Classes in all districts became overcrowded, rising above the prescribed figure. Commissions and conferences were called by the Ministry in an attempt to find solutions. The most important of these was the Conference on Primary Education held in 1963, which led to the adoption of a number of resolutions in all fields connected with primary education. It was not long before the whole question of primary education
was again brought up for re-examination, and Law No.68 of 1968 on general education, embodying a number of previous amendments, was enacted.

Article 35 of this law states that the goal of primary education is the development of children intellectually, bodily, socially and nationally, by providing them with the basic essentials of knowledge and technical and practical skills. Parents or guardians are under the obligation to enrol their children in a primary school as soon as they reach compulsory school age and are prosecuted if they fail to do so or if they neglect to send them regularly to school. Handicapped or mentally deficient children are exempt from these provisions, except in districts which contain special schools. The double-session system is authorized, in order to absorb the greatest possible number of children. The total period extends over six years, which may be prolonged to seven in cases of repetition, but pupils reaching the age of 15 will not be allowed to stay on. Six years of age is the lower and eight the upper limit for enrolment. A medical examination is compulsory for all new pupils who are enrolled. No application for enrolment may be refused. Opening and closing days of primary schools are fixed by the local councils, provided the total period of study is not less than 38 weeks.

The six-year primary school course comprises the following subjects: religious instruction; Arabic; social subjects; science and hygiene; arithmetic and geometry; music and patriotic songs; physical training; drawing and practical work; agricultural training; (special) "feminine" subjects for girls.

These classes must be given according to a school plan embracing 28 periods for each of the first four grades and 30 periods for the last two. During the first four years, class teachers are responsible for the organization of studies, while in the last two years, this is left to the teachers of each particular subject.

The Ministry has considered applying a 24-period system for each primary school class in 1969-1970, in order to allow some schools to be occupied by three groups. It has also tried out the single-teacher system, so that the greatest possible number of teachers may be despatched to rural areas and to under-developed areas. Schools with two groups follow the same programme, and in the middle of the school year, the groups interchange.
To assess pupils, primary schools are now employing methods aimed at correcting the faults of weak children and encouraging the more gifted. All primary school classes have monthly oral and written tests in all subjects, and marks and observations are recorded. Two written examinations are also held for the third grade, and upwards, the first in the middle of the year under the supervision of the teachers and the second at the end of the year under the supervision of section inspectors. Final end-of-year marks for first and second grade pupils are calculated on the average of monthly marks. For third, fourth and fifth grades, the totals of the monthly marks plus those obtained at the mid-year and end-of-year examinations are taken. In the sixth grade only the marks of the end-of-year examination are taken.

The Ministry has pointed out to primary schools that examination marks must be entered in school-record booklets, which must be shown every month to parents or guardians, and that special classes should be formed for "left-overs", starting from the third grade as soon as there is a sufficient number of them to warrant it, or that the system of multiple levels in one class should be applied.

Promotion from one grade to another depends on the annual marks. To go into the fifth grade pupils must obtain pass marks in religious instruction, Arabic, arithmetic and geometry. On failing twice at the examination, they must repeat the fourth grade. The terminal primary school examination is held once a year at governorate level for sixth grade pupils in official and private primary schools. Successful candidates must obtain more than fifty per cent of the maximum in every subject, and are awarded the primary school finishing certificate. Unsuccessful pupils are given a certificate stating that they have completed their compulsory schooling. Examination results are of considerable significance when the performance of teachers is evaluated for purposes of promotion or supplementary benefits.

Children who have completed their primary education may get employment in jobs that do not call for a high educational standard, or they may enrol for complementary studies or at training centres attached to the Ministry of Culture for further vocational training. They also have the possibility of continuing their schooling in preparatory schools. All primary schools, State or private, are subject to government supervision. It should be recalled that State schools are free, while some private schools charge fees in return for
certain advantages, such as curricula in a foreign language or absence of restriction on age for enrolment. Other schools include special schools for the deaf and dumb, for the blind, for mentally retarded children and for those suffering from heart diseases. Children are admitted to these schools on the recommendation of appropriate commissions consisting of educators, doctors, and specialized social workers.

Primary schools pupils enjoy a number of advantages, of which the most important are: exemption of school fees in general schools, and reduction in the fees of private schools through grants provided for these schools; provision of school meals; provision of health, social and sports facilities; insurance of pupils; limitation of size of classes.

The educational zone is responsible for the supervision of primary education in regard to administrative and financial matters. Technical questions relating to entrance, organization, programmes and textbooks depend on the Department of Primary Education and teachers in the Ministry of Education, which transmits its findings to the relevant commissions. Since the passage of legislation on local government, local administrative councils have been given powers to open and allocate classes, to supervise the putting into practice of the prescribed curricula, to fix holidays and times of school timetables, to carry out adult education and literacy programmes, to authorize the creation of new schools, to supervise transfer examinations, to open and equip school libraries and to provide for meals and health services.

In every governorate, provincial education authorities, local councils and local consultative commissions take part in the management of primary education. In all primary schools, parents' councils co-operate with teachers in whose hands lies the real responsibility for this branch of education.

Abstract prepared by the Centre for Educational Documentation and Research, Cairo
Special schools and classes are set up for those handicapped children whose senses, mental capacities or bodily abilities are not sufficiently developed to enable them to follow normal schooling. The object of these schools is to provide educational facilities as well as social, health and psychological services at various educational levels in areas selected by the Ministry, for the following categories of children: blind; those with imperfect vision; those with defective hearing; mentally retarded; and, finally, those in hospitals and sanatoria.

Schooling in these various types of special schools is free, but examination fees must be paid for the examinations held at the end of the preparatory and secondary cycles. In districts where special schools and classes have been introduced, primary education is compulsory for the whole period of six years. It is extended to eight years only in the case of schools for deaf and hard of hearing children. In no case may children who have attained the age of seventeen on the first of October stay on in the primary cycle of special schools. Pupils may be enrolled after undergoing a general medical examination, as well as other examinations by appropriate specialists and psychologists, and after taking intelligence tests. Investigations are also carried out by social workers who determine the type and degree of disability, evaluate the mental,
sensorial and physical capacities, and investigate the family and environmental situation of the children. Specialized educators in these schools test the perceptual, comprehension and speech levels of all pupils. The results of all these tests are collected in separate files for each child. Commissions are set up for every school; they are presided by the head teacher and consist of a doctor, an educational psychologist and a member of the teaching staff, and their duty is to examine each case in the light of the reports and to decide whether the child is to be admitted to the school, provided a vacancy exists. Decisions must be confirmed by the educational zone in which the school is situated. Ordinary school pupils who are stricken with a disability or disease preventing them from pursuing their studies in the ordinary way may be admitted into special schools, on the basis of detailed reports on each child from the school where they were registered.

The schools and classes for the blind and deaf are all for boarders at all educational levels, although day-pupils may also be admitted, depending on circumstances. Schools for mentally deficient children, for the protection of eyesight and for children with deficient hearing are all day-schools. Boarders are supplied with free clothing and complete meals, and a mid-day meal is provided for day-pupils during the entire school period.

The Department of Special Education in the Ministry of Education is responsible for planning, following up, supervising and guiding the education of all categories of handicapped children at all levels of studies throughout the UAR. Governorate representatives take part in the administration of special schools of all types, and supervise expenditure which is met out of special appropriations provided for this purpose in the budget of each governorate. The administrative supervision in each educational zone is delegated to one of the heads of department in the primary school section in the zone, with the aim of creating a link between the educational zone and the Ministry.

Head teachers (men and women) of primary schools in all the different categories of special schools are appointed by the educational zones in consultation with the Department of Special Education. Heads of schools at higher levels are appointed by the latter department in consultation with the relevant departments in the Ministry.
An advisory commission for special education is set up in the Ministry of Education. It is presided over by the under-secretary for primary education and teaching institutes and consists of an under-secretary from each of the Ministries of Social Affairs, Health and Labour, and representatives from the Socialist Union, the Institute of Social Education and Re-adaptation for the Handicapped attached to the Ministry of Social Affairs, the Department of School Hygiene and Mental and Spiritual Health, and other relevant councils and bodies. The function of the commission is to examine all matters relating to the education, welfare and re-adaptation of handicapped children. Local advisory committees are also set up in every governorate where special schools and classes exist by an order from the governor, and are presided over by the head of the department of education in the governorate. These committees deal with matters concerning the admission of children to the special schools within the limits available, compile data and statistics about handicapped children at governorate level and study their problems in relation to their surroundings.

Primary school teachers in these schools are recruited from among teachers who have specialized in the various fields of special education, are graduates of teacher institutes and are holders of diplomas in special education, or who have been specially trained for this kind of work in courses run by the Ministry of Education. Teachers at higher educational levels receive the same training as teachers of general and technical education at equivalent levels, but are provided with the necessary additional training that will fit them for work in special schools.

The Department of Special Education in the Ministry carries out technical supervision, guidance and evaluation of special schools and classes at the primary level on a regional basis. At preparatory and secondary level in the schools for the blind, and for the preservation of eyesight, and at the vocational-preparatory level in the schools for the blind, deaf, hard of hearing and mentally retarded, guidance officers in the Department of Special Education are responsible for technical supervision and general guidance at regional level, while specialized guidance officers for various subjects and for technical education in respect of technical subjects of the educational zones are responsible for the guidance and evaluation of teaching personnel in these schools.
The schools for the blind are divided into the following stages: at primary school level, the evaluation of pupils is carried out on the same lines as that of ordinary primary school pupils. Sixth grade pupils sit for an examination at the end of the year at national level, and those passing this examination are awarded certificates showing that they have completed the primary school for the blind. Then comes the preparatory school stage which lasts three years. At the end of the third year, a single examination at national level is held, and successful pupils are awarded certificates showing that they have completed the preparatory school for the blind. Examinations are organized on the same principles as general preparatory school examinations. The vocational preparatory school level for the blind lasts two years and groups three branches. A single examination at national level is held at the end of the second year, and successful pupils are awarded certificates which are deemed to be equivalent to those of technical preparatory schools, on condition that candidates spend one further year training at one of the approved technical qualification centres. Secondary school lasts three years, at the end of which a single examination is organized by the Ministry at national level; a certificate stating that pupils have completed secondary studies for the blind in the arts section is awarded to successful candidates. This examination is organized on the same principles as those followed in general secondary examinations.

In the schools and classes for the protection of eyesight, plans of studies and curricula at primary, preparatory and secondary levels are the same as at the corresponding levels in general schools, and these pupils are allowed to sit for the same examinations and certificates.

The schools for the deaf and for children with deficient hearing are organized as follows: primary school lasts eight years. During the first five years, classes are taught by class teachers, while during the last three years, separate subjects are taught by the teachers for that particular subject. An examination is held at the end of the eighth year. Successful pupils obtain a certificate stating they have completed primary school studies for the deaf and for children with deficient hearing, and the examination is based on the same principles followed in the general primary school education examinations.

Vocational preparatory schools for the deaf and for children with deficient hearing last three years; at the end of the
third year, examinations are held at national level. Successful pupils are awarded a certificate stating they have completed vocational preparatory school for the deaf and for children with deficient hearing and are recognized as equivalent to the certificates obtained in general vocational preparatory schools. Examinations are held in those vocational and cultural subjects included in the syllabus.

Schools for the mentally retarded are organized as follows: at the primary school stage, teaching is geared to the needs, mental and perceptual level and age of the children. At the end of this period, they are given an attestation, endorsed by the appropriate educational zone, stating that they have completed that stage.

Vocational courses are organized in these schools for mentally deficient children who have completed primary stage. They are trained in appropriate skills and crafts so as to reach a standard that will allow them to work and to earn a livelihood.

Finally, there are the schools and classes attached to hospitals and sanatoria, where the teaching is organized to conform with primary school curricula and plans of studies, but with certain modifications adapted to the children's special state of health. At the end of the sixth year, examinations, invigilated by commissions within the hospitals, are held at the level of the educational zone, and certificates are awarded to successful candidates, stating that they have completed their primary school course. Vocational training sections are attached to hospital schools for pupils who have completed primary school and whose special circumstances prevent them from pursuing their studies in the next cycle.
The General Association of Teaching Professions groups all persons who are or have been engaged in education. Its activities are integrated in the political framework of the Arab Socialist Union, and its headquarters are in Cairo. Branches of the Association exist in all educational zones, and there are Association councils in every centre, administrative department or unit designated by the statutes.

The purposes of the Association are: to serve the community and to co-operate with local popular organizations towards the attainment of national goals, by concentrating the efforts of all its members; through the members' activities, to promote culture and education, including the creation of schools, to lend support to development plans and educational projects and to participate in seeking solutions to educational problems by putting forward suggestions, to co-operate with professional associations and similar institutions throughout the Arab world (within the framework of the Arab Teachers' Association) and with world educational institutions; to raise the standard of the teaching profession and safeguard its prestige, to improve the educational and professional standard of teachers, to take part in planning and developing education and teaching methods and curricula, to promote research, publication of books and scientific activities so that the needs of the community may be met;
to provide economic and social facilities, as well as cultural and recreational services, for its members; to set up a pension fund in cases of old age, disablement and death, to furnish material aid when necessary and to secure medical assistance for members and their families. The statutes set out how members may take advantage of the facilities offered to them.

Members of the Association must fulfil the following conditions: they must be nationals of the UAR, have legal competency and be of good moral character and reputation; they should be working, or should have previously worked, in one of the fields of teaching and education. The Association council may admit as members nationals of other Arab countries where reciprocal treatment is agreed to; foreigners employed by an educational institution in the UAR may become temporary members. Membership is compulsory for all staff and personnel of the Ministry of Education and of organizations attached to the Ministry; it is optional for those working in other educational establishments. The Ministry and its departments must take this into consideration when appointing new personnel for posts that fall vacant. An employer who engages a member of the Association is liable to three months imprisonment or to a fine not exceeding fifty Egyptian pounds. Owners of private schools found guilty of contravening the law or the provisions and orders relative to staff salaries and sureties, or found guilty of arbitrary dismissal of their personnel are liable to have their names struck off the register of the Association.

Members are required to undertake by oath to honour the Association's rules and regulations, and to carry them out sincerely and honourably and in accordance with the 'Charter of Arab Teachers'. They are also required to pay a registration fee and the annual subscription. Members must comply with the decisions of the Association council and those who fail to do so are summoned before the disciplinary board of the Association, which is composed of two bodies: a preliminary committee and a board of appeal.

In every Association council (local), every branch association (zone), and in the General Association itself (national), a general assembly is held, and each of these bodies has its own administrative board. The respective general assemblies are held once yearly to examine the activities of teachers in the district, the work and accounts of the previous year and plans for the coming year. In addition to the above, the
powers of the General Assembly of the General Association include taking decisions on the statutes of the Association, the election of its president who must be a highly-qualified teacher with 15 years of service in the teaching profession, and the examination of matters brought before it by the Minister of Education.

The administrative boards at the various levels meet at least once a month to carry out the decisions of the General Assembly, to coordinate teachers' activities, to execute the different programmes offered to them by the Association, and to maintain the accounts and balance sheet.

The executive committee of the General Association consists of a president, two vice-presidents, treasurer, secretary-general, and assistants. Members of the administrative boards, in addition to their qualifications as members of the Association, must have spent at least five years in teaching activities. When electing members, care should be taken that all levels of the teaching profession are represented and that half the number of members should consist of teachers who have spent at least fifteen years in the teaching profession. The administrative board shall decide that not more than three of its members, of whom the secretary-general must be one, shall be delegated from the Government or from governmental organizations (with their approval), for a period of four years, on the understanding that their salaries will be paid by the Association. The same procedure may be applied to the secretaries of branch associations.

The Association's income is derived from registration fees and other amounts paid to the Association, which are entirely paid into a Pensions and Provident Fund; from members' annual subscriptions allotted to association councils, branch associations, the General Association and the Pensions Fund; from revenue arising from investments in banks, the sale of publications and donations and gifts. The Executive Committee distributes this income in accordance with the provisions of the present law and of the statutes. All assets of the Association and of its various branches are free of taxes imposed by the Government or by any other authority.

Disbursements out of the Pensions and Provident Fund are made to members (or their beneficiaries in case of death) in respect of sums due to them in the way of retiring allowances or provisional indemnities. The Fund is managed by a committee consisting of one of the two vice-presidents of the
Association, the treasurer and five other members elected by the Administrative Board from among its members for a period of two years. Decisions of the Fund Committee become operative after endorsement by the Administrative Board. Pensions or provisional indemnities may not be distrained, neither may they be transferred or made over to third parties, and are tax free.

The assets of the 'Association of Teaching Professions', which had been created by Law No.219 of 1951, have been transferred to the Association set up by the present law. The existing Administrative Board will continue to exercise its powers in a temporary capacity until the Statutes come into force and until a new Board is elected, which must take place within not more than six months. The provisions of Law No.219 of 1951 and any other provisions not compatible with the present law are abolished.
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<th>Classification (for the use of receiver)</th>
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<td>Bulgaria</td>
<td>13</td>
<td>March 1971</td>
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<tr>
<th>Author</th>
<th>VASSILEV, C., YANEV, B.</th>
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<tr>
<td>Title</td>
<td>Oboutchemiesto i razvitieto na detsata postapili v otsuhilichte na 6 godichna vazrast</td>
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<tr>
<td>Translation</td>
<td>The education and development of children enrolled at school at the age of 6 years</td>
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<tr>
<td>Keywords</td>
<td>Bulgaria, primary education, admission, education and development, medico-educational research</td>
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Data gathered in a number of countries where children are enrolled at school at the age of six years, whether in the course of experiments or in accordance with long practice, show that this age offers a functional and structural basis for a more complex analytico-synthetic activity. Experience in the USSR, Bulgaria and other socialist countries, where children are enrolled at school at the age of seven years, also shows elementary school children's abilities to be seriously under-estimated: they are not required to perform tasks corresponding to their optimal possibilities. The rapid development observed in children in recent years is attributable to the tendency to equalize living conditions in country and town, to better feeding, to the acceptance of technology as part of our customs and culture, to the growth of information systems, to the attention paid to children's health, to the spread of kindergartens etc. Children's rapid development poses the urgent problem of lowering the age at which children start school. It follows that, in this case, the amount of knowledge to be assimilated must be optimal in order to achieve the children's harmonious development, both physical and mental. The questions of the periodicity and the stages of public education should therefore be reconsidered. Earlier enrolment ensures children's more effective development and allows the result of the teaching to be assessed earlier, i.e. under better conditions.
Apart from this, it should be noted that children who start school earlier also finish their schooling and start work earlier in the circuit they have chosen, and the economic consequences of this should not be overlooked.

A group of teachers and doctors has therefore attempted to study the possibilities for children starting school at the age of 6 years of assimilating the curriculum content designed for children starting school at the age of 7 years. For four years the study group conducted complex experimental research in the fields of psychology, education, hygiene and physiology. The experiment started at the beginning of the 1961/1962 school year and finished at the end of the 1964/1965 school year. It thus covers the whole period of elementary schooling.

The educational research carried out during these four years concerns 84 experimental classes and 40 control classes in the first year, 72 experimental classes and 30 control classes in the second, 48 experimental classes and 20 control classes in the third and 24 experimental classes and 10 control classes in the fourth. The experiment covered pupils in several towns and villages throughout the country. The experimental classes consisted of children aged between 6 years and 6 years 8 months, excluding all other methods of selection. Changes and improvements in the experimental classes' organization and curriculum were slight. In view of the specific age characteristics, however, it was necessary, in the experimental classes, to link the teaching more closely with practical activity, particularly in Bulgarian language and mathematics, make considerable use of audiovisual aids, make a greater number of observations and have recourse to a variety of games from time to time.

From certain indications it was possible to perceive the results in the teaching of reading, writing and arithmetic, from the first to the fourth year. Other indications were the marks obtained in the various subjects and the end-of-year mark. The results were noted on special leaflets. In order to cover all the children's activities during the teaching process, the teachers used a variety of methods: observation, talks, surveys, characteristics of pupils' individual abilities etc.

The medical observations covered 190 pupils in experimental classes and 250 pupils in control classes; they took account of the following elements: height, weight, chest measurement,
measurement of biceps, relaxed and tensed; physiometric examination of lung capacity and strength of arms; haematological examination - number of red and of white globules, haemoglobin, haemogram; ophthalmological examinations; results of certain sports activities: running, jumping and weight-throwing. All these examinations were carried out at the beginning and at the end of each school year.

It was found that children starting school at the age of six years successfully assimilated the subjects of the elementary curriculum. As regards Bulgarian language and mathematics, pupils in the experimental classes equalled pupils in the control classes. Control class pupils' general end-of-year mark is marginally better. In Sofia, the experimental class pupils' mark is better. The number of pupils repeating the class is smaller in the experimental classes. Only pupils in first-year experimental classes encounter certain difficulties: subjects are assimilated at a slower rate; pupils' attention is still hesitant; they are behind in certain physical exercises.

In order to obviate the difficulties experienced in the first year by pupils starting school at the age of six years, it is important to introduce a different kind of organization of work from that used in classes for children starting school at the age of 7. Initially, children aged 6 years were enrolled with their parents' consent; between 1970 and 1975, such enrolment will become compulsory. Experimental work must continue in order to arrive at an optimal elementary school curriculum, especially for the first year. In institutions which train elementary school teachers, more attention must be given to preparing students to deal with teaching problems and child development.

Abstract prepared by Mr. P. Balevski, Educational Research Institute
<table>
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<tr>
<th>Author</th>
<th>Mr. Velitchkov, head of the Education Department of the Central Committee of the Bulgarian Teachers' Union</th>
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<td>Title</td>
<td>Summary of the report presented at an international meeting of representatives of teachers' unions, held in Sofia on 28 and 29 April 1969. The report is the result of collective research undertaken by a group of union members from France and from Bulgaria and from the Secretariat of the World Federation of Teachers' Unions. The material was edited and the report drafted by Mr. Velitchkov, head of the Education Department of the Central Committee of the Bulgarian Teachers' Union.</td>
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<td>Bibliographical data</td>
<td>Narodna Prosveta Journal, 1969. vol.6. p.3-21</td>
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<td>Keywords</td>
<td>Bulgaria, educational reform, teaching personnel</td>
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<td>Translation</td>
<td>The rôle and rights of teachers' unions in educational policy-making</td>
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The introduction to the report shows how the scientific and technical revolution and the economic and cultural development of society in all countries impose on teachers and their unions the obligation to fight not only for better economic and social working conditions for teachers but also for their active participation in educational policy-making and the organization of education. Indeed, in view of their rôle in the process of educating the younger generation, teachers must be intent on training and teaching the latter to work towards the achievement of the great ideals of the progress of mankind, for scientific and technical advancement and for society's economic and cultural development.

In striving for participation in educational policy-making, teachers and their unions draw on the...
principles laid down in the 'Recommendation concerning the Status of Teachers' adopted by the special intergovernmental conference organized by Unesco, in Paris, in October 1966.

Surveys conducted in a number of countries reveal that educational policy is governed by the constitution and other official documents (laws, decrees, regulations, circulars, curricula and syllabuses) as well as by educational planning and financing; yet the degree of participation of teachers and their unions in determining educational policy and preparing the above-mentioned documents varies from one country to another. Countries may be classified in three distinct groups in this respect: socialist countries, capitalist countries and developing countries.

In the socialist countries, teachers and their unions not only have the right to contribute to the determination of the educational policy; they are actually bound by their duty to society to play as active a part as possible in solving all problems affecting the development and improvement of the younger generation's education. This participation takes place in the following way: the teachers join, on an equal footing with the State bodies, in drawing up the basic documents which determine the government's educational policy; they are represented in the various consultative bodies, where they may express their opinion freely; they participate, on an almost individual basis or in collaboration with the administrative bodies, in the improvement of teachers' qualifications, the exchange of educational experiences, socialist emulation etc.

In the capitalist countries, the teachers and their unions may exercise their right to participate in the orientation of educational policy, indirectly, by means of the various ways in which they are allowed to influence public opinion. In some States with a more liberal régime, they are admitted to certain State bodies to discuss educational problems. In most of these countries, however, the teachers' unions have to resort to different forms of demonstration in order to arouse public opinion: congresses, conferences and colloquiaums, union newspapers, common endeavours with other unions and progressive social organizations, recourse to the intervention of parliamentary representatives and militant progressivists. In some cases, they do not hesitate to go on strike, organize demonstrations, etc. All these efforts are often successful in forcing governments and parliaments to meet the demands of the teachers and of their unions.
In the developing countries, the situation depends on the political régime and on the teaching profession's degree of awareness of its duty to participate in solving the fundamental problems of public education. Where conditions allow, teachers and their unions are extremely active in determining educational policy. In countries where the government trusts the social organizations, including the educational organizations, the State bodies raise no objection to the teachers' collaboration in solving any particular problem affecting education. In countries where teachers' rights are restricted, they are obliged to express themselves in indirect ways, in particular by alerting public opinion, and also by means of demonstrations etc.

In conclusion, in every country without exception, educational policy is oriented and directed by the respective State bodies. Theirs is the task of planning and taking decisions relating to public education and its development.

The forms and means to which teachers and their unions have recourse in order to participate in educational policy-making are certainly very varied. They depend essentially on the country's social and economic situation and political régime, and also on the democratic freedoms enjoyed by the citizens and more particularly the unions.

Abstract prepared by Mr. Velitchkov, head of the Education Department of the Central Committee of the Bulgarian Teachers' Union
The above work, covering the post-war period up to the present day, expounds for the general reader the perfecting of the education system in the People's Republic of Bulgaria in order to meet better the needs and aims of the country's social development.

The study of general education gives a detailed analysis of the education system: pre-school education, its aims and content; the general polytechnical school from the 1st to the 9th year of studies; the teaching process: pre- and in-service training of teachers; the organization and running of general schools - and stresses the decisive importance of general education in the cultural training of the nation.

The purpose of pre-school education, which concerns children from one to six years of age, is to lay the foundations for the children's harmonious development and to prepare them for school education. Creches have been opened for children aged from one to three years and kindergartens for those aged from three to six years, attendance at which is free. The creches are actually attended by 20 per cent and the kindergartens by 65 per cent of the children in the corresponding age-groups.
All children liable for compulsory primary schooling attend school: 98 per cent of pupils leaving the eight-year primary school continue their schooling in the intermediate stage. General secondary education is provided in grammar schools from which most pupils go on to higher education.

Much of the study is devoted to the education system, the aim of which is to inculcate a love of peace and of social progress, to promote social and political activity, to provide sound instruction in the various scientific and technical fields, and to ensure that pupils receive educational and vocational guidance. Half the pupils take an active part in out-of-school activities, for which they are neither paid nor charged.

The standards of teacher training are excellent and staffing requirements for pre-school education and general subjects taught in general or vocational schools are fully met. There is, however, a shortage of specialist teachers in certain types of vocational schools.

Teachers of pre-school classes and elementary schools (classes 1-4) take only two or three years' higher education after leaving secondary school, whereas teachers of the 5th- to 11th-year classes and in vocational schools hold higher education diplomas obtained after four or five years' post-secondary studies. An in-service training scheme enables teachers to attend certain specialized institutions and follow courses and seminars in order to specialize or to retrain and so obtain higher qualifications.

Vocational education for the training of senior personnel keeps pace with the development in the technical field. Nearly 70 per cent of primary school leavers (1st- to 8th-year classes) continue their education at a vocational school.

Courses last 3-4 years in technical secondary schools (technicums) and 2-3 years in vocational and technical schools. The curriculum content is in conformity with scientific and technical progress; equal time is devoted to theoretical and to practical training. Upon completion of these courses pupils may enrol at a higher educational institution. The authors deal next with the curriculum content in vocational schools which train personnel for the national economy. Full details are given of the supervisory and administrative organs of vocational education, the obligations of the ministries and administrations whose staffs are trained in the
vocational schools, and the incorporation into the labour
market of young people leaving the vocational schools.

The report deals in some detail with the part played by
higher education in technical progress, the cultural revolu-
tion and the development of science. The development of
higher education meets the needs for senior personnel in the
various fields of the economic life of the country. Over 25
per cent of students attend higher technical institutions.

The higher educational institutions are establishing their
position as centres for training skilled personnel and spe-
cialists for all branches of the national economy.

The content of higher education is determined by the needs
created by the country's social and economic development, the
level of scientific development, the material conditions of
this level of education and the duration of studies. It con-
sists of the following stages: general theory, technology,
economics and ideology. There has been a growing tendency
over the last few years to go beyond strict specialization
and adopt a general basic specialization.

The study goes on to deal with the system of pre- and in-
service training for teachers and research workers, and with
the organization of research in higher educational
institutions.

Higher education is free. Courses vary in duration from 4 to
6 years and lead to a State diploma. At the end of their
studies, students have to defend a thesis. Entry to higher
educational institutions is by competitive examination; 40
per cent of students receive study grants and 30 per cent are
admitted to university hostels.

Students show an outstanding sense of citizenship. They par-
ticipate in the different activities of their political
organization and in a vast network of scientific research cir-
cles and groups which contribute to their specialist training.

The study also deals with the system of administration of
education, promoted by central and local authorities. This
administration is based on the principles of unitary organi-
ization and democratic centralism.

Abstract prepared by Mr. Ilia Tatchev, Ministry of Education,
Sofia
The development of education in the People's Republic of Bulgaria is marked by three stages: from 1944 to 1959, the principles of democratization and secularization were applied within the framework of a system of compulsory education; from 1959 to 1969, polytechnical education was introduced and the duration of compulsory schooling extended to 8 years; a third stage began on 31 July 1969 with the Decision by the Central Committee of the Bulgarian Communist Party to reorganize the education system.

The reform aims to create the conditions necessary for the training of a new type of highly skilled specialist able to solve the complex problems posed by the scientific and technical revolution and by the development of the country; of creatively minded persons capable of independent thought, able to orient their actions and overcome problems and obstacles; of specialists educated in the communist spirit of the Party and actively striving to implement its policy in everyday life.

In order to achieve these aims the reform contains provision for:

- access to compulsory secondary education for all and the creation of a new type of unified polytechnical secondary education;
- enrolment at school of all children from the age of six years onwards;
- from the 4th year onwards, subjects on the curriculum to be taught by specialist teachers;
- modification of the structures and content of education;
- organization of vocational training for secondary school leavers;
- reorganization of the teaching process in schools of all types and levels;
- regrouping educational institutions;
- extension of boarding and day boarding facilities in schools;
- creation of a new type of higher educational institution meeting the nation's needs in the fullest possible way and destined to become a research centre;
- greater responsibility devolving upon senior teaching staff in the reorganization of public education;
- transforming the school into a powerful ideological institute.

Among the criteria on which the new structure of the public education system is based are: the full and harmonious development of every member of the rising generation; the renewal of public education, now a continuous process, with the opportunity for periodical further training for senior personnel; complete democratization of education, which will be the same for all, open to all and must enable any person to move from one level of education to another; training for young people to enable them to enter the production sector or the sector of science and research at the earliest possible moment; finally, a feature of the new system will be its flexibility, in order to speed up instruction.

The organization of the education system includes, at the first level, pre-school education. Next comes the unified polytechnical secondary school, compulsory for all children aged from 6 to 17 years. The decision that children should receive this instruction at the age of 6 years instead of 7 is based on research and experiments conducted in the field of children's physical and mental development. From the 4th year onwards, each subject is taught by a specialist teacher. Vocational training for executive and administrative personnel follows on from secondary education. Higher education is provided in specialized higher educational institutes which offer diploma courses varying in duration from 3½ years to 4½, after which the student carries out a piece of individual research.
The continuous nature of the teaching process is reflected in the systems which enable the requisite qualifications to be obtained. For workers, these are systems built up by the industries, while for specialists with higher education and for scientific personnel they are built up by higher educational institutions.

The basic provisions of the reform govern the reorganization of the content of education and the teaching process in polytechnical secondary schools, viz.,

- the theoretical and scientific level of the teaching is to be raised; obsolete facts, data and details will be removed from the syllabuses;
- special attention will be given to young people's education in the field of mathematics; the level of teaching of natural science will be raised; aesthetic education and the teaching of modern languages will be improved;
- the rôle and place of ideological disciplines will be raised to a higher level;
- the content and tendencies of the younger generation's polytechnical training will be modified in accordance with progress in the field of science and technology;
- a new qualitative trend will be given to the content of education, by means of productive work.

The teaching process will be brought up to date so as to improve both teachers' and pupils' work in class and to develop the pupils' creative thinking and ability to acquire knowledge and put it into practice in their own way - thus aiming to obtain lasting educational results in a shorter time.

The complete recasting of the teacher training system will make it possible for teachers to play an increasingly important part in the implementation of the educational reform.

Other provisions govern the reorganization of higher education. Higher educational institutions are to be reorganized to train highly skilled specialists. They will be transformed into research centres for scientific development and will assume a broader rôle; they will become powerful ideological institutes training specialists educated in the communist spirit.
There will be a concentration of scientific activity, and research conducted in higher educational institutions, academies of research and higher administrations will be co-ordinated.

In conclusion, the fundamental aim of the task of education devolving upon educational institutions is the full development of the man. This involves the establishment of a scientific system covering the whole of the educational process. The objectives of communist education will be achieved mainly through school education and by a wealth of out-of-school activity run by pupils' and teachers' organizations. The essence of ideological work among young people is the patriotic education of the citizen.

The development of education and the launching of the reform depend directly on the material means available. Increasing the means essential to the education of the nation is a fundamental task which is the responsibility not only of the State, but also of society as a whole. Investments in education must be increased every year. Every school must be equipped with modern teaching apparatus in the course of the present decade. It is essential to plan the regrouping of schools and to undertake the building up of a unified network of schools.
The Government set up the Education Commission (1964-1966) to advise on 'the national pattern of education and on the general principles and policies for the development of education at all stages and in all aspects'. The recommendations of the Education Commission were widely discussed and this led to a Resolution on the National Policy on Education which was placed before both houses of Parliament. The policy statement now forms the basis for educational development and has provided the framework for the Fourth Five-Year Plan in Education.

A radical reconstruction of education is essential for the economic and cultural development of the country, for national integration and for realizing the ideal of a socialist pattern of society. The objectives are to: transform the education system in order to relate it more closely to the life of the people; expand educational opportunity and raise the quality of education at all stages; emphasize science and technology; cultivate moral and social values. The system of education should produce young people of character and ability, committed to national service and development. This type of education is necessary if the country is to attain its rightful place in the comity of nations in conformity with its cultural heritage and unique potentialities.
To achieve these objectives the Government resolves to promote the development of education on the following set of principles:

1. Free and compulsory education for all children up to the age of 14; steps should be taken to reduce wastage and stagnation in schools, ensuring that every child completes his school course successfully.

2. The teacher should be accorded an honoured place in society; his emoluments and service conditions should be adequate and commensurate with his qualifications and responsibilities; his academic freedom to pursue independent studies and research and to express his views about significant national and international issues should be protected; in-service education should receive due emphasis.

3. The development of Indian languages and literature in order to release the creative energies of the people, improve standards of education, spread knowledge among the people and reduce the gulf between the intelligentsia and the masses. The regional languages which are already the media of education at the school stage should be adopted as the media of education at the university stage also. The three language formula should be adopted and implemented vigorously at the school stage. This would mean the study of Hindi, English and a modern Indian language (preferably a Southern language) in Hindi-speaking States, and Hindi, English and the regional language in non-Hindi-speaking States. Courses in Hindi/English should be available in the universities and colleges in order to improve the proficiency of students in these languages, up to university standard. Every effort should be made to promote the development of Hindi and make it a link language so that it will serve as the medium of expression for all the elements of the composite culture of India. The teaching of Sanskrit should be offered on a liberal scale as Sanskrit is of special importance to the growth of Indian languages and has a unique contribution to make to the cultural unity of the country. The study of English and other international languages should be strengthened, in order that India may keep pace with the growth in world knowledge and also make her own contribution to it.

4. Equalization of educational opportunity through: the correction of regional imbalances in educational facilities between urban and rural or backward areas; the adoption of the common school system to promote social cohesion and
national integration; the admission to public schools on the basis of merit and provision of free studentships in these schools in order to prevent segregation of social classes; the promotion of girls' education so as to accelerate social transformation; the development of education among backward classes and tribal people; and the expansion of educational facilities for the physically and mentally handicapped children, and the development of integrated programmes to enable these children to study in regular schools.

5. Talent in diverse fields should be identified at an early stage and every opportunity given for its full development.

6. Work experience and national service should become an integral part of education, in order that school and community may be brought closer together; emphasis being placed on self-help, character-formation and on developing a sense of social commitment.

7. Science education and research should be given a high priority in order to accelerate the growth of the national economy; science and mathematics should be an integral part of general education throughout the school stage.

8. Education for agriculture and industry should be given special emphasis, with at least one agricultural university in every State and strong departments of agriculture in other universities. Technical education and research should be related closely to industry. Practical training in industry should be an integral part of technical education.

9. Writers of talent should be attracted to produce low-priced textbooks of high quality for schools and universities; a few basic textbooks should be common throughout the country, and special attention should be given to books in regional languages.

10. Examination reforms should aim at improving the reliability and validity of examinations and at making evaluation a continuous process so as to help the student improve his level of achievement.

11. Educational opportunity at the secondary (and higher) level should be extended, and facilities for technical and vocational education at this stage increased and made
effectively terminal, in conformity with the requirements of a developing economy and employment opportunities.

12. The number of students enrolled in colleges and universities should be determined with reference to physical facilities and strength of the staff available; new universities should be started only when adequate funds are available and standards can be ensured; special attention should be given to the standards of post-graduate courses; centres of advanced study should be strengthened and clusters of centres established with high standards of training and research; increased support should be given to university research.

13. Education through part-time and correspondence courses should be developed at all stages and such education should be given the same status as full-time education.

14. The liquidation of mass illiteracy is necessary for accelerating programmes of production and national development; industrial undertakings should make their employees functionally literate, and teachers and students should be actively involved in organizing literacy campaigns.

15. Games and sports should be developed in order to improve the physical fitness and sportsmanship of students.

16. The educational interests of minorities should be protected and promoted.

17. A broadly uniform structure in education would be desirable in all parts of the country; a 10+2+3 pattern is recommended, i.e. 10 years of school stage, 2 years of higher secondary stage in schools and/or colleges, and 3 years at the university or college to obtain the first degree.

18. In order to achieve educational reconstruction on the lines indicated, investment in education should be increased to 6 per cent of the national income as early as possible. In view of the limited resources and the complex nature of the problems involved in such a reconstruction, the Government will both undertake programmes in the Central sector and assist State Governments in the development of programmes of national importance. The progress made would be reviewed every five years and guidelines recommended for future development.

This Report sets out the objectives, priorities and strategies for the Fourth Five-Year Plan, 1969-1974. It projects the main features of the national economy and spells out specific tasks including programmes and schemes to be undertaken by the Central and State Governments.

The Report results from the work of a large number of groups which undertook studies and made proposals on the size, content and strategy of sectoral plans. It is also based on discussions between the Planning Commission and representatives of the State Governments, Union Territories and Central Ministries, and incorporates the decisions taken by the National Development Council, which is the supreme body for laying down broad priorities in regard to the programmes of social and economic development for India as a whole.

Chapter 15 relates to Education and Manpower. This Fourth Plan in Education, as in other sectors, is designed to promote the overall social and economic development of the country. What is significant is that it tries to give concrete form and content to the findings of the Education Commission which submitted its report in 1966.

The chapter on Education and Manpower states that a suitably oriented system of education can facilitate...
and promote social change and contribute to economic growth not only by training skilled manpower for specific tasks of development but, perhaps even more important, by creating the requisite attitudes and climate. Thus the accent is not only on the productive aspect of training specialized personnel, but also on the large-scale expansion of education among the masses in order to create attitudes favouring social development.

India's tasks in providing educational facilities for children in the age-group 6-14 are immense. Article 45 of the Constitution (1950), visualized the achievement of universal compulsory education for children up to age 14 within a period of 10 years. It has not been possible to achieve this target; the report states that, at the end of 1960-1961, only about 49 per cent of children in the age-group 6-14 were enrolled in schools (65 per cent of the boys and 31 per cent of the girls). Among factors contributing to the slow rate of expansion are: low enrolment of girls and of children from the under-privileged sections of the community; early withdrawal from school; and heavy wastage and stagnation. Out of 100 students enrolled in class I, 64 reach class II, 50 class III, 47 class IV, 33 class V, 24 class VI, 22 class VII and 19 class VIII. The Plan refers to these problems and suggests certain remedial measures. But despite the programmes of expansion foreseen in the Fourth Plan, schooling for children in the age-group 6-14 by 1973-1974 will be available only to about 69 per cent (84 per cent of the boys and 57 per cent of the girls).

Under secondary education, an effort will be made to enrich the content and improve the quality of education, apart from the inevitable expansion which will result from growth at the elementary stage. It is proposed to provide a large variety of vocational courses at post-elementary level for children who do not intend to continue their general education.

To improve the enrolment of girls, special programmes will be organized, varying from State to State, and these should raise the proportion of girls to the total enrolment in class I-V, VI-VIII and IX-XI, by the end of the Fourth Plan, i.e. 1973-1974, to 41, 34 and 28 respectively.

Teacher education for the first time appears as a separate section and here the estimates of teachers required at various school stages, as a result of expansion and replacement during the Fourth Plan period, have been indicated. The
additional number needed is estimated at about 300,000. The requirements of trained teachers will be met through the existing training facilities except in a few States where acceleration of programmes has been suggested. The National Council of Educational Research and Training set up at the Centre, and the Institutes of Education established in the States will concentrate their efforts mainly on qualitative improvement of education, in-service training and orientation courses.

In the field of higher education, the enrolment will increase from 1,690,000 in 1968-1969 to 2,660,000 which will cover about 3.8 per cent of the population in the relevant age-group. There will be greater accent on the provision of educational facilities at this stage through correspondence courses, evening colleges and part-time classes. The percentage of students enrolled in science courses to the total enrolment will increase from 40.2 in 1968-1969 to 45 in 1973-1974. In providing for the additional enrolment, emphasis will be on rational location of institutions and on optimum institutional size. Consolidation and improvement of higher education through the strengthening of staff, library, laboratory facilities and also increasing the facilities for post-graduate education research are other programmes. Some of the promising university departments will be assisted to grow as Centres of Advanced Study. Development of an interdisciplinary approach by the setting up of clusters of advanced centres in related subjects will be emphasized.

The percentage of literacy in India is estimated to be about 33 in 1968-1969. The number of illiterates in the age-group 15-44 which is important from the production point of view, both in factories and farms, would be about 150 million. This poses many problems and it appears that it will not be possible to eradicate illiteracy in such large numbers without a systematic effort and the mobilization of voluntary and local community resources. Preceding the introduction of large-scale programmes of adult education, pilot projects will be initiated in selected districts and then extended to other areas in the light of experience. The integrated programmes of farmers education and functional literacy in the high yielding variety areas will be extended to 100 districts and will cover 1 million adult farmers. A National Board of Adult Education will be set up to advise Government on developmental programmes in the field of adult education and for enlisting the cooperation of all the persons and agencies concerned.
An important sector which has received considerable attention is that of Youth Services, because the Ministry of Education has now been entrusted with the specific task of developing programmes for youth. A National Social Service will be implemented on a selective basis with a view to involving students in programmes of national development. For non-student youth, the programmes suggested are: provision of wider opportunities for further education and vocational and professional advancement through part-time and correspondence courses, development of facilities for physical education, games and sports and cultural activities and the provision of guidance and counselling. A National Youth Organization will be set up to advise Government.

Under technical education, the main emphasis will be on improving quality and standards and keeping the enrolment targets under review in the light of the assessed demands of engineering personnel in the fifth and subsequent Plans. In 1968-1969, the actual admissions were about 17,000 in degree courses and 31,500 in diploma courses. No change is visualized in the provision of facilities. The main improvement programmes would relate to pre-service and in-service training of teachers, reorganization of diploma courses in order to diversify and reorient them functionally to the needs of industry, improvement of post-graduate engineering studies and research, curriculum development and preparation of instructional materials including laboratory equipment. The number of places for practical training in industry, which was increased from 200 in 1967-1968 to 11,000 places in 1968-1969, consequent to the unemployment position among engineers, will be maintained at about the same level during the Fourth Plan.

One of the important new sections relates to planning, administration and evaluation machinery. It has been realized that to implement the various educational programmes effectively, the planning and administrative machinery will have to be streamlined. Provision has been made for strengthening recruitment and training, providing incentives, rationalizing the work load of supervisors, developing research procedures and practices, carrying out of periodic studies to review the administrative machinery, etc.

For all these educational development programmes, Rs.8,290 million have been provided in the Fourth Plan (in addition to an average annual non-Plan expenditure of Rs.5,500 million). The distribution of the Plan outlay of Rs.8,290 million is:
Rs.5,580 million (67.3 per cent) in the States sector, Rs.300 million (3.6 per cent) in the Centrally sponsored sector and Rs.2,410 million (29.1 per cent) in the Central sector. It has also been estimated that about Rs.1,500 million are likely to be available during the Fourth Plan from non-governmental sources which include fees, contributions of local bodies and endowments.

Annexes to the chapter on Education include tables indicating the growth of enrolment in schools and colleges during 1960-1961 to 1973-1974 for the country as a whole and for the period 1960-1961 to 1968-1969 in respect of various stages of education such as primary, middle and secondary for individual States and Union Territories of the Indian Union. There is also a table indicating financial allocation for the Fourth Plan to various States and Union Territories for general education, technical education and cultural programmes separately.

Abstract prepared by Dr. S.N. Saraf, Ministry of Education and Youth Services
This report is the product of an investigation by the Committee on Social Science Research appointed by the Government of India in September 1965 in pursuance of a resolution of the Planning Commission 'to survey the current situation in relation to research in the social sciences in India and make recommendations regarding their future line of development, including the organisational steps necessary for the same'. For some time it has been felt that in the preoccupation with the 'hard' sciences and their applications to technology, research in the social sciences had not received adequate attention. There is, on the other hand, a growing recognition of the important contribution that social sciences can make to planning and development, and hence the need was felt for 'a more co-ordinated growth of social research in the country'. This prompted the Government to appoint the Committee to review the whole field and make appropriate recommendations.

The investigations into student research revealed that whereas there was an increasing rate of registration for a Ph.D. degree, there is a very large incidence of drop-outs. Thus during a period of eight years, 1955-1963, 80 per cent of the total candidates who had registered for a Ph.D. either did not complete their work or were not awarded the degree; 60 per cent of the universities that reported registration did not award...
any degree at all. It was further discovered that the low accomplishment of Ph.D. candidates was neither due to a very high standard expected of them nor due to any liberal procedure for admitting students. This 'drifting away from research' has been noted by the Committee as a real problem which involves substantial waste of resources. The principal reason was economic, namely, the inability of students or their families to support themselves financially during the period of research. The number of scholarships available was found to be very small, the value of scholarships very low, and the possibility of an assured career after completion of research not very bright. Thus when an employment opportunity came their way, a large majority of students gave up their research career. The rigid recruitment policies of university departments, where 'teaching experience' still had an edge over 'research experience', contributed further to this drift and produced faculties given more to traditional teaching than to research orientation.

As regards research that was 'required' in part fulfilment of a degree (Master's or otherwise), the quality was found to be very poor. The general academic level of the student was not high, there was indifference to the research project, a general fear to apply statistical techniques, poor planning, ignorance of prior work, poor knowledge of sources of secondary data, impatience with research procedures, vague 'emotionalism' in reporting, announcement of half truths and untruths, haste, poor grammar and many typing mistakes.

In regard to faculty research also, the work carried out in the universities is not very much; 85 per cent of the university departments contacted by the Committee to furnish an inventory of their research work did not report. Of those who reported, a seven-year analysis shows almost no increase over the years in the average number of research units completed which was as low as one unit per department per year. On the Committee's calculations 80 per cent of research potential in the Indian universities remains unutilized.

Surprisingly, even the research work completed by research institutions with full-time and generally more numerous staff is not very much. While there has been some growth over the years, the latest available information indicated an average performance which was only twice that of university departments. If it is remembered that most of this research (94 per cent) is sponsored by Government and foreign agencies, the level of creative output can be said to be rather low.
Research units of government departments showed somewhat better output, with an average of three units per year per department. But it should be remembered that most of these are short gestation studies, undertaken for rather practical purposes, and may have a relatively low 'research' content.

A review of the research in the individual disciplines in social sciences shows a very uneven development with economics alone showing marked progress. The level of research personnel is not very high, methodological rigour is lacking, and there is very little co-ordination and aggregation of knowledge.

Nine factors that have hindered the growth of research in the social sciences were noted during the investigation. The first and most important of these was inadequacy of funds for research. The bulk (more than 90 per cent) of financial support for research goes to natural sciences. Social sciences receive as little as 3 per cent of such support. This includes direct expenditure incurred by Government on its own research. Of the grants made to academic bodies, a large majority are for 'sponsored' research. And of the little that is made available for independent research, two-thirds goes in salaries alone. Very little is thus left for field work and actual research expenses.

The second major factor is shortage of trained research personnel. Uncertain employment, poor pay, low status of research worker and low status of research itself are among the principal reasons for this. The third and fourth factors are associated with the foregoing: a disproportionate load of teaching on regular staff members and an almost complete lack of financial incentives.

A fifth factor is the absence of adequate research facilities. There is very little by way of organized documentation services. Data are ill-preserved. In some places library facilities have declined rather than improved and in a number of universities and colleges there are no proper holdings of social science books and serials. More sophisticated facilities like transformation of data on punch cards, microfilming, computer facilities and data libraries are non-existent in most places. A sixth and related factor is the absence of facilities for training in research and research methodology. Financial compulsions have obliged training centres that were started to cut down their scope or close down completely.
There is also a serious problem in respect of scholarly communications and utilization of research output. There is very little flow of talent and experience in respect of seminars and conferences; there is no tradition of sabbatical leave for conducting research at other centres where better facilities exist; there are few, if any, decent journals in social science disciplines; funds do not exist for publication of research findings. There is also no tradition of interdisciplinary research. Social change is a multi-dimensional process; both the designing of policies and the designing of research as an aid in policy-formulation require an interdisciplinary and collaborative treatment. There is, however, no organized effort in this direction and a pervasive 'ego factor' in preserving professional specializations seems to operate in academic work.

These eight factors point to the most serious lacuna of all: the absence of a machinery for research planning and co-ordination. A large number of potential research workers are not able to take up research because of non-availability of research and training facilities, inadequacy of funds, absence of technical assistance, and a lack of co-ordination in what little is done. Even in regard to the research that is 'sponsored', it is project-based and is not based on financing a programme of linked projects which can advance the frontiers of knowledge in a systematic manner.

The Committee has made a series of programmatic suggestions built around one major institutional recommendation: the establishment of an Indian Council of Social Science Research somewhat on the same lines as the Council of Scientific and Industrial Research. This council should be a registered society enjoying necessary autonomy and endowed with adequate resources for supporting a co-ordinated programme of research in the social sciences. It should have a distinguished social scientist as its chairman and 25 nominated members.

The functions of the council should include both catalytic roles such as identification of research priorities and technical assistance in the designing of research, and sponsoring and supportive roles in respect of research proposals, maintenance grants to autonomous research institutions, seminar programmes and programmes of research fellowships and scholarships. It should also initiate a number of programmes and facilities including: training in research and research methodology; identification of neglected and new areas of research; establishing data libraries and documentation
centres; 'special awards' for research work undertaken by teachers; and conferences for the 'users' of research. It should develop close working relationships with such agencies as the University Grants Commission so that it can make an impact even beyond the normal range of research work, as in the modernization of teaching in the social sciences. The Committee's diagnoses and recommendations are based on the fundamental consideration to 'promote social change and to produce a dynamic society capable of absorbing and utilizing the scientific and technological developments for the welfare of human beings'.

Abstract prepared by Professor Rajni Kothari, Centre for the Study of Developing Societies, Delhi
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In 1967, the State Council, on a motion of the Ministry of Education, set up a committee for planning the organisation of post-basic (secondary) school education in relation to future industrial and occupational needs. For the first time in Finnish educational planning an attempt was to be made to shed light on this level of school education as a whole.

First, an attempt was made to outline the primary objectives of post-basic education:

School education should be organized to meet the needs of industrial changes, both quantitative and qualitative, to such an extent that production is competitive on a world basis and thereby contributes fully to the overall developmental plans of society. Simultaneously, school education should provide every individual with a good opportunity to be employed, as far as possible, according to his own characteristics and abilities.

School education should not necessarily be based on production and profits; it should even have opposite aims and provide scope for personal enlightenment and encourage voluntary activity, through which the student will learn about himself and his environment, independently of outside influences. This activity in itself must be
regarded as a value, and students ought to have the possibility of defining its nature and content.

The committee confined its work to the first objective, i.e. the promotion of vocational and general education so as to meet the demands of future employment.

In order to obtain a general idea of the developmental needs of education, the following steps were taken: (a) the broad outlines of the expected changes in the industrial structure of Finland by 1985 were drawn up; (b) a general account on the expected changes in manpower needs by 1985 was prepared; (c) the role of those with different levels of education in the labour force in 1985, on the basis of a certain number of pupils entering school each year between 1966 and 1985 was estimated; and (d) the future labour market resulting from the combined effect of work distribution and the supply of trained or educated labour was outlined.

In addition to the quantitative definitions an estimation was made of the effect of changes in technology and manpower needs on the knowledge and skills the school is supposed to provide. It was considered that the major emphasis should be put on achieving the following skills: data processing, methodology, and information technology; communication, with special stress laid on foreign languages and oral expression; the different fields of general knowledge (i.e. the physical, biological, social and cultural environment); specialization (on the assumption that the aim is to enable the student to apply his acquired knowledge in his profession, and to provide him with the required skills, habits and attitudes).

It was recommended that the organization of post-basic education should be based on the principle of increased school education and a system of achievement levels. It was necessary that post-basic education should be flexible and continually renovated. It should provide an increased emphasis on general knowledge, the possibility of a freer combination of subjects, a system of comparability of equal achievements, and tasks leading to independent activity. Adult education should be more efficient and better organized and there should be mobility of labour. Consideration should be given to individual differences, in an "education network" which is compact at the regional level yet versatile at the local level; the economic implications should also be considered.
These criteria could be met most satisfactorily by employing a system which recognizes equal achievement levels in a given subject regardless of the school where they have been obtained. Furthermore, it must be possible to assess school marking according to the curriculum followed by some other school. It should also be possible to improve school achievement later, if necessary in subjects not previously included in the curriculum. The realization of this so-called achievement-based system of study would provide for the transition from one channel of schooling to another, increased possibilities for further education, and new combinations of subjects according to changing circumstances.

It was recommended that educational planning, both quantitative and qualitative, and the research serving such planning should be organized. Educational planning is required at three levels.

1. Long-term perspective planning - which is also part of total social planning - based on the role of school education as a productive factor, the economic resources available to school education, and the co-ordination of the educational plans drawn up by the different ministries in their own fields. All this would be carried out by the governmental organ for total economic planning.

2. Long-term developmental planning concerning the whole educational system, including for example a broad division of the needs of school education within a national framework and, on this basis the needs of the main areas of school education. Further tasks would be the co-ordination of detailed projects prepared by the central authorities, and the prediction and control of the consequences of educational planning. The body in charge of this activity would be the planning organ of the Ministry of Education.

3. Middle and short-term planning of the different sectors of school education. Quantitative and qualitative projects should be prepared covering a period of 5-10 years. They would not be concerned with the whole structure of the educational system, but rather with the planning of the content of the syllabus and the combination of educational activities in relation to the nation's educational and labour policy. This planning would be the primary duty of the central offices in charge of school education.
Finally, it was emphasized that an attempt should be made to deal with the problems of planning the whole structure of school education especially in relation to: the introduction of the basic school; the renovation of academic education; and the more varied and extensive facilities for adult education. Instead of the usual practice of manipulating with details it is essential to discover the goals and premises common to the whole educational system.

Abstract prepared by the Institute for Educational Research, University of Jyväskylä, Jyväskylä.
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Following recent discussion of the reorganization of the administration of higher educational institutions, and criticism in particular by the Finnish Union of Students, the State Council in 1968 appointed a committee to establish guidelines for the development of the internal administration of universities and corresponding institutions of higher education. The Ministry of Education has prepared for consideration by Parliament a Bill based on the Committee's work. This abstract deals with the principles of the proposed reform and the essential contents of the Bill.

In their internal affairs universities and corresponding institutions of higher education should have greater powers of decision in order to develop, within general limitations, specific characteristics. Present limitations to their autonomy should be retained only when their activities fall within the scope of national planning in general, or are governed by commonly accepted principles. Such questions would include the major fields of instruction and research, special tasks and matters of major concern, the level of examinations, and the qualification requirements for and responsibilities of the different offices in the university. On the other hand, matters that should be increasingly transferred to universities include the content of instruction and examinations, the general organization of instruction and study, the
development of institutes engaged in research, and matters concerned with official appointments. The autonomy of universities can, however, be successfully increased only if their decision-making is rendered more effective and more flexible in relation to the intended reform.

According to the reform of the internal administration of universities and institutions of higher education, the power of decision is, whenever possible, transferred from the central administration to lower administrative organs; collegial action is confined to questions of principle or of particular importance. Special stress is laid on the responsibility of the individual charged with administrative duties. Furthermore, the reform foresees the equal responsibility of students and staff in the functioning of their institution, especially at the lower administrative level. The Government considers that the administrative reform should provide in particular the chance to develop the training of researchers as well as research work.

The proposed Bill, based on the above principles, contains the following main proposals.

Universities shall provide scientific freedom of instruction and research, but in other respects they shall be bound by the decisions of the teaching unit in question, e.g. by that of an institute. Only senior teachers shall have the right to decide on the content of instruction.

In their internal affairs universities shall be autonomous; administrative decisions shall be made by teachers, researchers, other personnel, and students.

Universities shall be governed by a council, a board of administration, department committees, and institute committees. In addition, they may have administrative advisory organs, according to their position, size and duties.

The highest level of decision shall rest with the council, which will be responsible for: outlining the work and activities of the university; presenting reports on legal matters and on questions relating to the development of the activities of the university; endorsing long-term economic plans; electing the board of administration, rector and vice-rectors; and deciding on other matters prescribed by the constitution of the university.
The council shall consist of not less than 20 and not more
than 60 members according to the size of the university, and
shall remain in office for two years. Its chairman and vice-
chairman shall be co-opted by election. All elections shall
be direct, by proportional representation and secret ballot.

Teachers, researchers, other personnel, provided they have
been employed for more than three months, and the full-time
students shall have the right to vote, each qualified voter
having one vote.

At its first meeting the council shall elect the board of
administration, composed of at least 6 but not more than 18
persons; the rector and vice-rectors shall be ex-officio
members. The election shall be proportional, permitting an
equal representation of the different groups in the council.
The regulations shall be those prescribed for communal or
municipal elections. The duties of the board shall comprise
the preparation of matters presented to the council and the
execution of its resolutions.

The chairman of the board of administration shall be the rec-
tor of the university, elected by the council for two years.
Both the rector and vice-rector shall have the qualifications
of a professor, or a doctor's degree, and be familiar with
the administration of university-level education, instruction
and research. The rector may, however, be elected from out-
side the university.

Where the university has departments their activities shall
be supervised by a department committee. If the department
is divided into institutes, which again may differ from each
other in regard to their size and the extent of the field of
instruction, the department committee shall consist of the
directors of the institutes which make up the department and
of at least one but not more than three representatives
elected by the institute committee of each institute within
the department. The department committee shall, however,
have at least one professor from each institute. The chair-
man of the committee shall be the department head elected by
the committee, which also elects the vice-chairman. The for-
mer shall hold the rank of professor or a doctor's degree,
and be familiar with the instruction and research activities.

The institutes engaged in instruction and research shall be
directed by institute committees with at least 6 but no more
than 15 members or their substitutes. One-third of the members shall be elected by the professors of the institute, one-third by other personnel, and one-third by students of the institute, each student having the right to vote only in one institute in these elections.

Both the department committee and the institute committee shall remain in office for two years.

The head of an institute, who shall act as the chairman of the institute committee, shall be elected by the committee, and shall be either the professor or a full-time teacher or researcher of the institute holding a doctor's degree.

Only those students having the full legal age shall be eligible to the council, department or institute committees, or any other administrative organ with powers of decision.

Decisions in regard to scientific posts and offices, and the assessment of scientific theses, shall be taken only by those with corresponding qualifications or who have presented theses of the corresponding level. The appointment of applicants who have been found qualified for a particular post shall be carried out by the board of administration, by the department committee, or by the institute committee, but those entitled to participate in the appointment shall also include all college members whatever their qualifications.

It has been proposed that this law should come into force on 1 September 1972. Until then, however, State-owned universities as well as State-owned and private institutions of higher education may organize their internal administration differently from the way that has been stipulated or prescribed, in order to experiment with the details given in the law. More detailed regulations for the application of the law will be given in subsequent laws and statutes concerning universities and institutions of higher education, and in their own constitutions.

Abstract prepared by the Institute for Educational Research, University of Jyväskylä, Jyväskylä
The empirical investigation described in this report was carried out in Alppilan yhteislyseo, which is the State experimental school of Finland. It is a secondary school which receives its pupils after four years of elementary school.

The experimental group consisted finally of 119 pupils whose average age at the end of the experiment was 15.8 years. They were divided into four parallel sections - classes A, B, C and D. The experimental period in algebra started at the beginning of grade 7 and lasted three school years. During the whole of this time the pupils had the same two mathematics teachers. There were two courses in algebra, and the pupils were divided into two experimental groups (Group 1, classes A and B; Group 2, classes C and D). Hence, both teachers were teaching in both groups, and the individual differences between the teachers affected both groups in the same way.

Group 1 studied the experimental course planned by Malinen. The text material was given to the pupils of grades 7 and 8 in the form of mimeographed sheets. The course included mostly simple exercises. The typical process of teaching was the following: repetition exercises led to a new topic; principles were presented in the form of simple formulae; these new principles were exercised in simple situations; more
advanced situations were presented later in a repetition phase. Pupils often discovered new principles in a simple form, and in most cases verbal formalizing followed the first exercise period.

At the same time Group 2 studied the traditional course of algebra, using the textbook by Väisälä. In grade 9 Group 1 also used this textbook, but not as Group 2. The book includes first a text where principles are defined or derived in a common algebraic form. The number of simple exercises is small, and the teacher must present more. The book contains more complex exercises many of which can be studied only under the guidance of the teacher.

The learning of algebra was measured by using 20 tests of separate topics of the course. Most of these tests were ordinary achievement tests, where it was required to solve equations or simplify algebraic expressions. Some tests measured the understanding of algebraic principles and the ability to apply algebraic knowledge to new situations. All algebra tests were presented after the pupils had learnt the corresponding topics. In many instances the pupils were retested after they had learnt more algebra. All tests were presented again in grade 9 during the final phase of the experiment.

Some important variables of mathematical ability were based on the monographs of Werdelin, and the choice of mathematical ability tests on his studies carried out in Sweden. Therefore some of his ability tests were employed which were highly loaded in the numerical, reasoning and deductive factors. These tests were presented at the beginning and end of the experimental period in grade 6. In grade 7, three tests of visual ability were also included in the test battery. All these were retested in grade 9.

In the affective domain the objects of main interest were attitudes, most of which were connected directly with the learning of algebra; it was not the intention to study the whole area of the pupils' attitudes.

All the ability and achievement tests were factor analysed together. The variables of the affective domain were factor analysed separately. Analyses were made of the measurements of both grades 7 and 9, and the results were compared by means of transformation analysis. The factor structures remained almost unchanged in transformation from grade 7 to
grade 9, the transformations being separate for the cognitive and affective domain variables. The analyses yielded the following factors. **Cognitive domain factors:** numerical factor; visual-reasoning factor; factor of school success in algebra; factor of understanding mathematical principles; factor of complex algebra; school reasoning factor; algebra and induction (visual) factor. **Affective domain factors:** affective attitude to algebra; interest in algebra and other school work; dissatisfaction with results in algebra; aspiration level of algebra; attitude to algebra syllabus; common school success.

In the second phase the important variables were subjected to further analysis. The total analysis of the pupils' capabilities gave four well-defined factors: reasoning factor; numerical factor; affective attitude to algebra and specific school success in algebra; and observed behaviour indicating interest in school work.

In the subsequent phase the relations between the following dependent and intervening variables were studied by the method of regression analysis. **Dependent variables:** mark in algebra (grades 7 and 9); complex algebra (grade 9). **Intervening variables:** reasoning ability; numerical ability; attitude to algebra; simple algebra; understanding (only in grade 8).

The multiple correlation coefficients varied from 0.78 to 0.84 when complex algebra and mark in algebra were predicted in this system. The variables predicted most important were simple algebra and attitude variables. The importance of reasoning ability was slight and that of numerical ability insignificant. Besides, weak attitudes were connected more closely with weak performances in algebra than high attitudes with high performances, especially in grade 7. High reasoning ability was closely connected with high performances, but the pupils with a weak performance were not especially low in reasoning.

The variable understanding was more moderately important in grade 9 when performances were predicted for both weak and bright pupils. It is likely to have importance in the first phases of learning, but later on performance has been established almost independently of it.

The variable simple algebra and the attitude variables were all closely connected with previous school situations. It
would be misleading to say that mathematical ability was insignificant for the learning of algebra in this experimental group. General reasoning was meaningful, but only in connexion with common skill and interest in school subjects.

As the investigation was made in a secondary school and the pupils belonged to the upper half of the age group in so far as their skill in mathematics was concerned, it was not possible to estimate the results of the whole age group. The experimental group was selected largely according to reasoning ability, and for this reason it had perhaps too small a rôle. Consequently, the importance of attitudes may have increased in the prediction of a pupil's success in algebra.

Some results have been presented above which are closely connected with the syllabus of algebra.

1. It was advantageous, especially for weak pupils, to use simple exercises and the inductive method, since training in difficult problems, expressions and equations did not greatly help weak pupils. It was possible to reach elementary skills in equation solving and in simplifying expressions by means of simple exercises, and thereby saving time for other algebra topics. Teaching was made more effective by the use of the method of repeated teaching situations according to the spiral principle.

2. In predicting success in algebra it was discovered that the most important mediating variables were simple algebra and attitude variables. The differences in understanding seemed to be moderately important. All these differences also prevailed between weak and bright pupils, although there were differences in weight. They should be taken into consideration in ability grouping for teaching, and in choosing courses for the pupils.

3. Topics which were learnt only superficially have been compared here with those in which the pupils were well trained. There were no factor structural differences except for the test equations, and no clear differences as to retention. Learning processes were not investigated, but understanding of mathematical principles were likely to have a rôle in these processes. It became evident that in some parts of the courses training was of no help, especially to the low achievers.

Abstract prepared by the Institute for Educational Research, University of Jyväskylä, Jyväskylä
In 1968 the State Council appointed a committee to study means of improving the co-operation between teachers, pupils and parents, and providing for regulations concerning pupils' legal security and the maintenance of peaceful working conditions in schools. In its first interim report the Committee has dealt with State-owned and private secondary schools. At present co-operation between teachers and parents is organized through a parents' council. Regulations governing co-operation between teachers and pupils are limited; each class must, however, have a class supervisor, responsible for the well-being of his pupils in collaboration with the parents. Rules and regulations concerning school discipline and the legal security of pupils are few and antiquated.

The report contains proposals for the organization of secondary schools, the establishment of school councils, the maintenance of peaceful working conditions and the provision of legal security. Secondary schools should have an internal organization for dealing with activities between teachers, pupils and others involved in school life; each group should be permitted to make suggestions and to participate in the preparation of all decisions, even if they are ultimately taken by senior administrators.
The school council will be the new administrative organ, replacing the parents' councils; it will be composed of three teachers, three pupils and three members elected by the municipal council. All representatives and officers will be elected for one calendar year. The headmaster, while not elected, must attend meetings, with the right to speak but not to vote. The minimum age for the right to vote will be 15. In middle-schools, and in secondary schools having such a section, the council will have three additional pupils under the age of 15, as assisting members with the right to speak but not to vote.

To ensure effective co-operation and a sense of responsibility on the part of pupils the school council will be given tasks which require the making of decisions in addition to the presentation of statements and suggestions. The main duties of the council will be: the development of co-operation both inside the school and between home and school; assistance in school supervision; the preparation of school regulations; and the imposition of disciplinary punishment for all offences except minor ones. In addition it will be responsible for providing information on school activities, participating in planning timetables, deciding on new textbooks and on exemptions from school fees, supervising school meals and the health services, preparing financial statements and, in private secondary schools, matters relating to regulations, curricula and school fees.

The report proposes good deportment as a general norm for pupils; they must follow accepted manners and be careful in handling school property. Each school must have general regulations laid down by the school council. The school has the right to inflict punishment when an offence is committed in school or under closely connected circumstances, e.g. in school areas or on occasions organized by the school. The possible punishments include staying after school hours, written cautions, and complete expulsion. Individual teachers cannot resort to any of these measures. The headmaster or the school council can make a pupil stay after school for the maximum of two hours, and the latter can also use the other punishments listed above. The teacher must admonish a pupil who has broken the general regulations of the school or otherwise behaved in an undesirable way. If this proves to be insufficient the headmaster can advise and admonish the pupil in a way he finds appropriate, or tell him to stay after school for the maximum of two hours; or present the case to the school council.
Teachers involved in pupils' offences are not permitted to inflict penalties; the headmaster or his delegate is responsible for investigating the full circumstances of the offence, which must be recorded in writing by the school council if it is called upon to deal with the matter. Before taking any action the headmaster should give a hearing to the pupil. The school council, on the other hand, must inform the pupil of the specific charge, to which the latter can reply orally and/or in writing within a prescribed time. Moreover, before expelling a pupil temporarily or altogether, the council must give the pupil's parents an opportunity to present their statement.

The report proposes that the pupil should have the right to appeal to the school council in the event of his disagreement with the penalty inflicted by the headmaster. A council decision to expel a pupil either for a fixed time or altogether, must be made known to the pupil and to the parents, who have the right to make a written complaint to the Ministry of Education within 15 days. There is no appeal against the school council's decision to admonish the pupil or to keep him after school hours. Any decision by the Ministry is final.

At present, the Ministry of Education provides satisfactory legal security in the school's assessment of a pupil's achievement in that it has the right to alter the assessment if it is found to be incorrect. To improve this legal security the report proposes that headmasters should keep the written school tests in the school archives for a period of two years. Furthermore, the corrected and marked answers to these tests should be returned to the pupils.

Other matters considered in the report include: abolition of the mark in carefulness; changes to the punishment book; the regulations on pupil organizations; measures to deal with a pupil showing continuous lack of discipline, one expelled from school altogether, or one who is pregnant. The report proposes that a social worker for schools be appointed, on a temporary basis, to help the headmaster and teachers and, if necessary, the school councils. This experiment will be tried out in five State-owned and five private secondary schools. His task would be to ensure a better understanding between the school and the pupil, particularly in relation to problems at home and to helping the pupil adapt to the school milieu. He would also assist pupils and their parents in utilizing the social services provided by society.

Abstract prepared by the Institute for Educational Research, University of Jyväskylä, Jyväskylä
**Country:** Nigeria  
**CEAS No.:** 24  
**Date of issue:** March 1971

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**Translation**

**Keywords**

Nigeria  
educational philosophy  
educational reform  
educational objectives  
primary education  
secondary education  
higher education  
teacher training

Historically, the chief agencies for the introduction of the western formal system of education into Nigeria were European traders, Christian missionary organisations and the British colonial administration. Even in the late 1960s, it was regrettable obvious that the purposes of these pioneer agencies, despite interactions with the motives and aspirations of the indigenous peoples, were still the dominant influences shaping the course of Nigerian education. The inadequacies of the Nigerian (colonial) educational system stem mainly from the fact that the imported system, though it served up to a point the purposes of the British colonial regime, was not adapted, because it was not designed, to serve the purposes of a free and independent nation. At no time in their history had Nigerians as a people deliberated among themselves and decided on the aims and goals of education to serve the purposes of the nation.

The Nigeria Educational Research Council, as part of its search for an appropriate philosophy of education for Nigeria, organized this Conference and summoned it to 'review old and identify new national goals for education in Nigeria at all levels and provide guidelines on what the system should be accomplishing with respect to: (i) the needs of youths and adult individuals in the society; (ii) the socio-economic needs, values, aspirations and development of the
society; and (iii) the curriculum substance, the subject content of the system which is the means to the goals'.

This task is to be accomplished in three stages. The present report is an account of the first stage of the exercise, namely reviewing the old and identifying new national goals for education in Nigeria.

In the opening address Dr. S.J. Cookey (Chief Federal Adviser on Education) urged the adoption of a standpoint according to which education means 'the training of the entire person to enable him not only to be able to read and write and calculate or to be proficient in a given job, but also to enable him to fit himself for living in a society'. Similarly he urged the adoption of a definition of the curriculum as consisting of all the experiences of the pupils under the guidance of the school. With the aid of examples drawn from different epochs and from different parts of the world, Dr. Cookey demonstrated the need to link an educational system to the needs of society and the need, therefore, to review the goals and content of education in Nigeria. The Conference subsequently addressed itself to this task.

First, a national philosophy of education was discussed and enunciated. Firmly convinced that the content of education should reflect the past, present and future of the dynamic Nigerian society, the following broad objectives were outlined: (a) the inculcation of the right type of values and attitudes; (b) the training of the mind in building valuable concepts and generalizations about the world; (c) the acquisition of appropriate skills, abilities and competencies of both a mental and a physical nature; (d) the acquisition of a relevant and balanced knowledge of facts about local and world phenomena. Nigerian education should be geared towards self-realization, better human relationships, self and national economic efficiency, effective citizenship, national consciousness and unity, social and political progress, scientific and technological progress, and national reconstruction. Implied in the foregoing is the need to ensure equality of educational opportunity for all children.

Finally, there should be the recognition and the placing of a positive emphasis on such educational values as respect for the worth and dignity of the individual, faith in man's ability to make rational decisions, moral and spiritual values in human relations, and the promotion of the emotional, physical and psychological health of all children. This philosophy pervaded the discussions on each aspect of the education system.
A paper on the purpose of primary education identified the social foundations of any meaningful education and urged that more attention should be paid to moral education. Another paper explored the historical origins of Nigerian education and lamented the neglect of primary education. A re-definition of the aims and goals of primary education was urged. The two basic functions of primary education were stated to be: (i) to prepare children for life, and (ii) to give those with the necessary background the opportunity to proceed to the secondary school. Such general aims as the inculcation of permanent literacy, character and moral training, enhancement of the child's creativity, development of skills, were spelt out. A six-year primary education course for children aged from 6 to 12 should be made available with immediate effect and placed under State control.

The following goals were set for the new Nigerian secondary school: (i) diversification of the curriculum to cater for the differences in talents; (ii) inculcation of a spirit of self-reliance, industry, versatility, self-discipline in the young; (iii) raising a generation of people who can think reflectively for themselves, respect the views and feelings of others, and respect the dignity of labour. Preference was expressed for the 6-6-4 pattern of education. It was decided that all secondary schools should be State schools.

In the context of a developing country such as Nigeria the functions of the university should include: (i) teaching; (ii) research; (iii) dissemination, that is, contributing to national and international dialogue and criticism; and (iv) community service and professional training of high-level and intermediate manpower. Specifically, the university was called upon to, among other things, develop and transmit the national cultural heritage and blend this with the larger world heritage, develop national consciousness, provide intellectual life sustained by an intellectual community, become a catalyst for change, and encourage and develop critical and analytical attitudes. To achieve these it should get more involved in community problems through, for instance, internship programmes and the organization of literacy, adult, and in-service training courses.

The teacher was seen to be the key man in the entire educational programme—hence the importance attached to the quality of person he is and to the quality of his training. The minimum educational background of the teacher should be the school certificate or its equivalent. Subsequent teacher
education should aim at producing a highly motivated, conscientious and successful classroom teacher and provide him with the intellectual and professional background adequate for his assignment at the appropriate educational level. Everything possible should be done to improve the status of teachers and this includes the professionalization of teaching. There should be more consultations with teacher organizations in the determination of educational policy.

Three papers were concerned with women's education. There was a need for providing equal educational opportunity for both sexes at all levels. There was a plea for the enfranchisement of all Nigerian women. In order to boost women's education it was decided that free secondary, teacher training and university education should be provided for talented girls.

Throughout there was a confirmation of the view that the basic failure of the educational system was in the field of preparing the learner for living a good life in a dynamic society. All too often the school syllabus emphasized the needs of the head but failed to provide for the needs of the heart and hand. To remedy the situation, mutual co-operation among the school, the home and the community was recommended. The schools must be functional. Multi-lateral or comprehensive schools should be established and the dignity of labour emphasized. Provision should be made for more leadership and youth centres for character and citizenship training.

In the discussion on the role of science and technology in development, the following needs were stressed: the provision of better living conditions, transportation and communication; improved exploitation of agricultural and mineral resources; the eradication of ignorance and superstition. The educational implications of the foregoing include the teaching of science at all levels, the training of more scientists and science teachers, and the development of a more flexible science curriculum. The salary structure should be revised so as to favour the skilled technician rather than his counterparts in white collar jobs. There should be a development of a national science policy under a central body.

It was recommended that control of education should be shared among local authorities, State and Federal Governments.

Abstract prepared by Mr. O.A. Nduka, Department and Institute of Education, University of Ibadan
The eighth National Plenary Assembly of the National Technical Council for Education was convened to bring together in one treatise all that the Ministry of Education has been doing for educational reform, the proposals of the National Educational Planning Commission, the recommendations made at national conferences and worthwhile personal opinions. The purposes stated at the convocation of the Assembly were: (a) to consider the activities performed in the study and promotion of educational reform and (b) to indicate exactly what still needs to be done in order to implant firmly all aspects of the reform. Four work sections were organized to fulfill these purposes: doctrine and legislation; the educational system and national development; educational planning; inter-relations between school, home and community.

The report of the first section, on doctrine and legislation, recommends: decentralization of administrative operations in the system, putting those organizations residing in the capital in charge of matters inherent in the different types of education offered by the Ministry; the creation, at a consultation and service level, of a permanent educational planning organization; a redefinition of the nature of administrative posts, without affecting workers' rights and at the same time guaranteeing maximum work efficiency; a definition of the nature of executive functions and inspection in the
educational field; that the Federal Executive Power be requested to begin action on a Public Education Organic Law.

The second section of the report, on the educational system and national development, in its introduction states that: the educational system should duly respond to the transformation of national structures and take into account the social needs derived from scientific evolution and technology in order that future generations be instilled with a lasting creative attitude; planning should be integral, structuring the varied phases of the educational system, and education must be contemporary with the present times. After considering the characteristics of the different educational levels basic recommendations were made concerning each level.

**Pre-school level:** Preference be given to low income groups in State-supported kindergartens and nursery schools; extend the use of the individual report to all nursery schools and create differential groups with specialized teachers.

**Primary level:** Intensify personnel guidance and training in order to work them into the current scholastic programme; adequate preparation of teaching personnel to deal with learning problems; guide rural teachers in order that they may contribute to community development; enrich teacher training through the use of modern teaching methods, with emphasis on audio-visual and other techniques that permit the application of the 'learn by doing' programme of activities; ensure the application of adequate evaluation procedures; implant the use of cumulative individual reports, beginning with kindergarten and extending it to the basic cycle of the middle level; encourage the democratic participation of the child in all aspects of scholastic life; increase the cultural services and the number of primary schools in rural areas as required.

**Middle level:** Establish permanent professional improvement services for teachers; design schedules that meet the interests of the students and allow for maximum use of workshops, laboratories and libraries; employ full-time and part-time teachers in the school system; revise the Employment and Wage Scale Law and Rules; revise, at the end of each school year, study plans and programmes, based on the results obtained. Teachers should encourage active participation by the student in the educational scheme, thus fostering the development of conceptual thought.
Higher level: Consider a varied education as a method for meeting the requirements for development and preparation to continue studies at a higher level; strengthen the relation between school and environment, providing the student with tools that will enable him to lead an active life in society even if he should terminate his studies; establish relations with industrial and service enterprises to enable teachers and students to obtain an exact idea of technological reality.

Teacher training for nursery schools, primary schools and for physical education: compile methodological guides that complement the current programme in order to keep professors informed of teaching techniques and procedures directed towards learning as a process of self-realization; technically determine career requirements and apply procedures that guarantee a fair selection; promote legal reforms providing for just remuneration and a higher social status. While it is possible to establish the bachelor's degree as a prerequisite to the profession, in order to meet the present requirements of the curriculum, it is also indispensable that the course of studies be extended to four years, an increase of one year over the present programme. Specialists should be prepared for teacher training in physical education.

In order to provide technical and scientific updating services for teaching personnel, the present Federal Teacher Training Institute should become the National Teachers' Institute for Professional Improvement and Technical Assistance and should formulate the plans and programmes that will guide these activities. The programmes would be adjusted to meet the requirements of teaching personnel at all levels, ensuring that they did not impede the work of the professors.

Higher education and scientific research: Secure, from the criteria established in the national development plans and by the National Commission for Integral Education Planning, a better distribution of higher educational institutions in the country; establish a well-founded system of student aid, in order that students will not abandon their studies owing to lack of funds; introduce a general law for higher education that shall contain in one legal framework the means to carry out reform, and in this connexion create a commission which includes representatives of institutions of higher education; provide for all levels an atmosphere that stimulates scientific and technical research; substantially increase the subsidies for scholarships in the country and abroad and promote the co-ordination of activities carried out by different
institutions for this purpose; evaluate the need for investment, establishing an order of priority for short-, medium- and long-term investments; motivate, organize and co-ordinate educational research at its different levels; create a National Scientific and Technical Information and Documentation Centre.

Out-of-school education: Give out-of-school education its due importance, strengthening those organizations responsible for its leadership by providing adequate human and economic resources; intensify artistic instruction and motivate popular handicrafts; study ways for farmers and workers to use their free time to the best advantage; promote sports, recreational and artistic organizations for young people.

The third section, on educational planning, recommends that the report by the National Commission for Integral Educational Planning covering a period up to 1980 be adopted. The work for educational planning should continue indefinitely. The possibility of providing greater opportunities for primary education in rural areas should be studied. A thorough study should be made on the restructuring of middle-level studies, in its two cycles. Institutions of higher education should carry out continuous studies on the labour market. Educational research should be widened and closely linked with the normal schools and the communications media.

The fourth section, on the relation between school, home and community, recommends that there should be increased opportunity for school counselling and guidance and preparation through the National Vocational Guidance and Training Service, which in turn should be given an executive character and provided with resources necessary to carry out its work. Timely information should be provided on important occupations in relation to development. The Ministry should take advantage of the time that the National Radio and Television Law (1969) allots for educational and cultural purposes. Teachers should be trained in the use of educational television, radio and films. Parents' associations should be more effective. Libraries reorganized to make them promotional agencies of educational and cultural development, and the Ministry should be entrusted with the executive supervision of publications for the young.

Abstract prepared by Dr. Blanca Jimenez Lozano, Instituto nacional de pedagogía, México
The Mexican Academy of Education, which is a private association of teachers, presented the above report, to the Eighth National Plenary Assembly of the National Technical Council for Education, held in Mexico from 29 July to 2 August 1969.

Starting from the premise that educational reform does not aim at changing or modifying the juridico-political structure governing the educational system, and based on Article 3 of the Constitution of the United States of Mexico, the assertion is made that the reform of its public administration must be regarded as a *sine qua non* of educational reform, i.e. it becomes necessary to introduce such changes in its administrative operation as shall ensure the exact implementation of recommendations and permit of evaluation. In consequence, it is considered advisable to propose the adoption by the Ministry of Education of the following measures: (i) decentralization of the administration and the creation, in each region of the Republic, of a corresponding directing body, the nature and procedures of which should be immediately studied; (ii) transfer to the Directorates-General, all located in the capital, the responsibility for all the technical questions specific to the various types of education provided by the Ministry; (iii) establishment of a staff-level permanent agency for educational planning, responsible, in the first instance, for organizing the adjustment of...
education plans, systems and methods to the changes in contemporary social life; (iv) action for the repeal of the Organic Law on Public Education (this is the law regulating the implementation of Article 3 of the Constitution and was promulgated 28 years ago). The report deals with each of these proposals.

The decentralized administrative system in each federal entity should have the following functions: appointment, transfer, supervision and payment of staff; nominate a technical advisory organ which would automatically include a representative of the State Government or federative area concerned; submit proposals for technical and administrative adjustments to the system in accordance with its jurisdiction; submit proposals for an expansion of the system in respect of staff, school buildings, equipment and acquisition of new materials, and the introduction of new services.

Should it adopt these measures the Ministry should encourage the formation, at the appropriate level, of groups of teachers and employees with expert knowledge of the problems of each State and ensure that educational planning meets the needs of local development programmes. Administrative procedures should be flexible and aim at encouraging the local officials, teachers and pupils to participate in the process of development.

The basic content of pre-primary, primary, secondary and pre-university education is the same throughout and the Ministry is responsible for curricula, syllabuses and teaching methods in both public and private schools. However, the unitary character of education cannot be maintained to the point of disregarding the stage of development or the geographical, social and economic peculiarities of each area and, indeed, of each region. The report accordingly maintains that the Ministry should invest the specialized Directorates-General with the following functions: to continuously review and update curricula in order to gradually make instruction more intensive and compact; to outline ways and means for testing aptitudes and familiarizing pupils with productive work; to deal with all technical matters in their special fields such as the supervision and improvement of the quality of the teaching.

The decentralizing of the Ministry's operations necessarily involves changes in the hypotheses of educational planning. Instead of planning in general terms with no attempt at
considering the background and needs of each State, it is proposed that State-level projects and specific projects for each level of education be elaborated in relation to the national plan for economic and social development. This necessarily implies the overall planning of education and each project will need to be worked out in terms of the objectives and evaluated, in terms of cost against yield. This overall planning, conceived of as the aggregation of State and specific educational sector projects, would facilitate the adoption of a more rational and practical educational policy, taking into consideration the requirements of regional development as elements in a congruent whole, the political priorities, the cost-effective relation and the extent of the resources available—Federal, State, municipal and private. It would compel a decision between technical alternatives and the establishment of priorities and would prevent planning from being brought into disrepute by unrealistic pronouncements, hypothetical necessities and impracticable financial requirements.

The permanent planning organism is conceived of as a data gathering, research, supervisory and counselling unit serving the executive authority; it would carry out tasks of analysis, critical review and synthesis not expressly the responsibility of the Directorates-General. Its functions in respect of information and research will be at three levels: (a) compilation of data on the actual educational situation; (b) determination of the problems to be solved or needs to be met; and (c) elaboration of studies and formulation of recommendations. The first level will utilize internal Ministry sources and such services as statistics, pedagogical research, and budget analysis; information and research on the economic and social situation will mainly rely on outside sources and should be referred to an appropriate documentation centre. At the second level it will formulate the problems and determine needs, the priorities on the basis of the information and research assembled at the first level. At the third level, it will be required to provide the executive authority with alternative solutions for each problem or need.

The first three proposals were adopted by the Assembly in the form of recommendations to the Ministry of Education, and the fourth as a recommendation to the National Technical Council for Education.

Abstract prepared by Mr. Juan Josafat Pichardo P., Instituto nacional de pedagogía, México
Primary education is free and compulsory and is provided by the State to all children between the ages of 6 and 14. The primary school is defined as 'an organized group of pupils belonging to the same or to different grades, who receive primary education imparted by one or more teachers, normally under the authority of a principal; its objective is the integral education of the Mexican child, i.e. his or her physical and intellectual development, ethical, civic and social training, and preparation for productive work'. As such it is an instructional unit,
constituting a reporting unit for statistical purposes and must not be confused with the school establishment (administrative unit) or with the school building (physical unit).

According to their organization and number of teachers, primary schools can be complete if they embrace the recognized six grades of primary education; or incomplete if they embrace fewer grades and unitary if they are in the charge of a single teacher. Rural areas possess central schools (escolas de concentración) which serve as centres for their respective regions and are attended by children from towns and villages which have either no school at all or only an incomplete one. According to the environment in which they function, primary schools can either be urban or rural. Urban schools are those functioning in a locality with more than 2,500 inhabitants; those functioning in smaller localities are classified as rural. Reference is also made to methods of classifying schools according to their calendar or time-table. With regard to the personnel of primary schools, a distinction is made, for statistical purposes, between directing, administrative and instructional personnel; in the case of teaching personnel between primary school teachers and specialized staff (music, language and physical training instructors, psychologists, guidance personnel and other specialists and technicians). Pupils are defined as 'the children enrolled in a primary school in order that they may receive systematic instruction in any of the six grades of which the school is composed'. Definitions are also given for the following: group or class, age of pupil, new pupils, repeaters, drop-outs, re-entrants, total enrolment, net or effective enrolment, average attendance, pupils who have passed their examinations, school leavers, certificate of studies and scholarship holders. 'School building' means a physical unit comprising one or more schools. Other concepts defined for statistical purposes are: type of construction (purpose-built or 'residential', the latter category being subdivided according to whether it has been specially converted for educational use or not); classrooms; and accommodation for other services, which may be complementary or auxiliary to the actual teaching.

In terms of financing, primary schools can be: federal, federalized, State, municipal, special or private. The sources and expenditure of funds for primary education are also dealt with.
The section on intermediary education is covered in two chapters. The first gives a brief analysis of the type of education comprised in the 'basic' and 'advanced' cycles of secondary education, the purpose being to indicate how the various schools fit into the present pattern of education. The second chapter defines and explains the principal statistical concepts involved. Under the Mexican system, intermediate-level education 'embraces all systematic instruction imparted between the end of the pupil's primary education and the commencement of his higher education; it comprises both general and specialized studies'.

The first, or basic cycle of intermediate education consists essentially of secondary education, but also includes certain types of specialized post-primary education of a terminal character which, notwithstanding their specific nature, contain matter identical with or similar to that of the ordinary basic cycle, which occupies the three years following the conclusion of the primary level. The basic cycle is taught in secondary schools and in various other educational establishments in which it goes by different names, although the variations in planning and curriculum content are so slight as to be insignificant, e.g. in teacher-training colleges for primary school teachers; technical schools; and pre-university courses forming part of the baccalaureate.

Elementary technical training lasts three or four years and consists of courses or short periods of study which are terminal or final in character; it covers a wide range of specialized skills in which there is a demand for qualified manpower, and is imparted in technical, industrial and commercial schools, institutes of technology and the Instituto Politécnico Nacional (National Polytechnical Institute).

Under the general heading of capacitación (qualification-oriented training) are included: (a) industrial training centres and agricultural training centres, which do not form part of the school system but are intended to enable young persons who cannot continue their studies beyond the sixth year of primary school to take a practical, short and inexpensive terminal course leading to a specialized qualification; (b) aesthetic education, provided in centres and schools whose purpose is to teach the arts and encourage artistic activity; and (c) military education, taught at various centres and schools; the courses last from three months to two years and cover a wide variety of military subjects.
The second or advanced cycle comprises four groups: preparatory (i.e., upper general secondary) education, military and naval education, teacher training, and intermediate vocational education. Preparatory education has two forms: pre-university or bachillerato (baccalaureate) and technical or vocational. Military and naval education are controlled by the Ministries for National Defence and Naval Affairs. Teacher training comprises the following types of specialized teacher-training college: (a) for primary school teachers; (b) for pre-primary school teachers (female); (c) for physical training instructors; and (d) for industrial and agricultural instructors. Intermediate-level vocational schools provide terminal courses, of variable duration, in nursing, social work, agriculture, naval and military subjects, etc. Successful students receive a diploma qualifying them as specialized technicians.

The study concludes with an account of various concepts and definitions relating to the intermediate-level school, its personnel, its pupils, school premises, and financing.
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<td>JIMENEZ LOZANO, Blanca; GALICIA DE G., Carmen Beatriz</td>
<td>Nuevo enfoque de la enseñanza de las matemáticas en el nivel de primaria</td>
<td>México, Instituto Nacional de Pedagogia, 1969. 34 p., mimeographed</td>
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<td>A new approach to the teaching of mathematics at primary school level</td>
<td>Mexico primary education mathematics teaching educational research</td>
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Three aspects of reform in mathematics teaching called for consideration: syllabus content, teaching methods and the question of introducing the pupil to modern mathematics at the earliest possible stage in his education. The idea of various authors are taken into account in the treatment of each of these aspects.

It is pointed out that the traditional syllabus for mathematics is now obsolete and needs to be replaced by the new material. Mathematics teaching requires the use of active methods — especially the heuristic method through which the pupil is trained to find out things for himself and is helped to build up a logical thought process. Such a reform forms part of the general methodological reform of teaching as a whole. The principle of introducing the pupil to modern mathematics at an early stage has stood the test of experience. Reference is made in this connexion to the opinions and works of Jerome Bruner and Jean Piaget.

Some of the basic criteria and procedures adopted by the Mexican National Institute of Education for its current research project are set out. The project is regarded as experimental and progressive in character, and it is felt that its results should be applied gradually, starting with the first year of primary school. New materials have been prepared, both for teachers — the aim being to familiarize them with
modern mathematics and teaching methods — and for pupils. Periodical meetings have been held with teachers taking part in the experiment to ensure that they receive the necessary supervision and guidance. There have also been several meetings with distinguished Mexican mathematicians for the purpose of ascertaining their views. Suggestions for the introduction of new mathematical concepts from grades 2 to 6 of primary school and a draft syllabus for the first year have been submitted to the National Technical Council on Education (Consejo Nacional Técnico de la Educación). A one-month vacation course attended by 300 teachers indicated how the material already prepared might be expanded and improved, and made it easier to gauge the difficulties involved in this type of training. Careful consideration should be given to the question of the methods to be employed, in view of the large number of primary school teachers in Mexico, and for this reason it is suggested that educational television should be used.

The second part of the document gives a stage-by-stage account of the research project. The first stage (1965-1966) comprised the following activities: bibliographical research; preparing teachers to take charge of the experimental groups; selection of the groups (pupils drawn from grades 1, 3, 5 and 6 of primary school); preparation of programmes for each group; advising teachers on mathematical technicalities during the experiment; devising objective tests for evaluation purposes; and a comparative study carried out by a research worker from overseas. The principal conclusion emerging from this first stage was that modern mathematical concepts could not be introduced in grades 3, 5 and 6 of primary school because, lacking the necessary foundation, the pupils had to be taught traditional mathematics at the same time and found the combination confusing. It was therefore decided that the experiment would have to be conducted gradually, starting with grade 1.

During the second stage (1967-1968), training was given to the team of teachers collaborating in the project; the pupils underwent a test to determine their level of intellectual development; a start was made on the preparation of teaching material relating to modern mathematics; class plans were drawn up for use by teachers; and regular progress assessments were carried out. The structure of the class plans and the reasons for adopting them are described.

In third stage (1968-1969), the experiment was extended to 25 grade 1 groups and also introduced into the grade 2.
progress made by first-year pupils was tested in an examination, also prepared by the Institute. Work continued on the preparation of teaching materials and teachers collaborating in the project attended a 21-hour training and briefing session on the development of the experiment. There was also a one-month vacation course for in-service teachers interested in the project to which the response was most encouraging.

The results of this stage were as follows: teachers displayed considerable interest in the two courses referred to; there was a pass rate of 95 per cent; the pupils' 'work book' proved to be an effective learning aid; and their interest and reasoning powers underwent further development. The collaboration, both technical and administrative, of teachers and education authorities contributed to the success of the experiment.

The first year draft programme sets specific targets with respect to the acquisition of knowledge and the formation of habits, skills, capacities and attitudes, and prescribes arithmetical and geometrical tasks which are graduated according to their difficulty.

Abstract prepared by Dr. Blanca Jiménez Lozano, Instituto nacional de pedagogía, México
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The guide is based on the evaluated and analysed results of experiments conducted by the Instituto nacional de pedagogía in its pilot school and other schools in the Federal district.

The foreword points out that there are two aspects of language teaching in primary schools, which are quite distinct in methodology, content and objectives: in the first-year classes, the primary objective is to teach the child to read and write, whereas from the second to the sixth year the didactics followed are designed to increase the child's command of the language, both spoken and written. The importance is also noted of the second-year class as a transitional period between the study of reading and writing and study of the language from the points of view of grammar, orthography and composition.

The characteristics and specific necessities of the second-year grade pose a problem of methodology, which is situated in a frame of reference based on the latest educational experiments, and starting from the child's spoken expression. For this frame of reference, a range of experiments and bibliographical searches were carried out in order to put together the work under review and to open new channels for pedagogical and conceptual renewal, without rejecting the traditional techniques. Any radical renovation would have involved
revision of the whole syllabus of the subject and research would have to be initiated on the linguistic structures and the vocabulary of the Mexican child.

The foreword also propounds the basic principles which directed the guide's preparation; it recommends an emphasis on the more formative, rather than mechanical, aspects of Spanish studies, i.e., elocution, composition and reading for comprehension, which offer the child greater opportunities for spontaneity and all-round development. It also emphasizes the tie-in both between the various areas of the curriculum and Spanish studies, and between the different facets of the latter, giving the teacher the opportunity of making his teaching active and functional. All the child's utterances, irrespective of their content, ought to be used as occasions for pertinent linguistic clarification, information or pointers, as the case may be, in a lively and dynamic process.

Among the basic objectives of Spanish studies, the two singled out are: (a) the pupil should learn to express himself correctly in speech and in writing; (b) the pupil should learn to understand what he hears and reads. Another major recommendation summarizes the action by the teacher in grammar lessons and suggests always starting from a greater unit of speech, for the study of a lesser unit: to explain the sentence, start from a complete passage; to study the clause, take a full sentence; for parts of speech, start from a clause. These suggestions are founded, on the one hand, on the fact that the child's perception is global and, on the other, on that the function of the words, from the grammatical angle, can be grasped only in their relationship to other words in the clause.

Emphasis is laid on the need to encourage and turn to account the children's conversation, spontaneous or guided, for all the activities embraced by the language studies, with the teacher inculcating correct use of the language progressively in pace with the child's linguistic development. No less importance is attached to reading in all its forms. Each of these forms is discussed and special attention drawn to 'expressive reading' as a valuable method of developing pupils' capacity for analysis and abstraction.

The guide takes the official Spanish studies syllabus, the free textbook and exercise book as reference points for its exposition. The techniques and procedures recommended are based on two distinct pedagogic approaches, that of traditional
didactics and the other, more flexible and more natural. The first seven chapters deal in detail with the corresponding sub-areas or aspects of the Spanish studies syllabus: reading aloud; reading in silence; writing; oral expression; written expression; grammar; orthography. These are followed by a chapter on the use of audio-visual aids and one on evaluation. The first gives a clear account of the theoretical principles behind this aspect of didactic method and a table of approximation to reality, or scale of intuitive resources, together with some practical recommendations. The second gives detailed guidance on the measures required for testing the pupil's grasp of the language; the rating scales given in an annex will help the teacher to make a more objective assessment of the results.

For the preparation of the guide, certain pioneering efforts in other countries were drawn on, notably the methods of Maffio, Camilli, Salotti-Tobar, and Picard.
Cultural exchange: In the texts of the 23 cultural exchange agreements, expression is given, with a few variations of form only, to certain preoccupations and convictions common to the signatory countries. These can be expressed as follows: the desire to strengthen still further the relations between the contracting countries or parties through the medium of friendly cooperation and exchanges; the conviction that the spiritual wealth of the peoples can be increased by the dissemination of information on progress achieved in each State or country in the domains of the humanities, ideas, science, education, art, technology, vocational training, administration, sport, etc.; the belief that these spiritual riches permit of fecund exchanges between the nationals and cultural institutions of different countries; the belief that, for the fuller evolution of culture and good relations, a fundamental necessity is more intimate acquaintance between nations.

The agreements concluded by Mexico with Latin American countries unanimously evince the desire to strengthen

1. Argentina, Belgium, Bolivia, Brazil, Chile, Costa Rica, Ecuador, El Salvador, France, Guatemala, Israel, Japan, Korea, Lebanon, Netherlands, Nicaragua, Panama, Paraguay, Peru, Union of Soviet Socialist Republics, United Arab Republic, Venezuela and Yugoslavia.
the bonds already created by their spiritual, linguistic, geographical and social affinities.

In general terms, the bodies of these agreements are alike in dealing, at 'treaty' level, with the following aspects: promotion of a better knowledge of each other's culture, main historical events, customs and principal intellectual and scientific activities; encouragement of exchanges between the teachers, researchers, artists and students; provision of travel facilities for participation in artistic, scientific and sporting events; propagating the respective culture and civilization in the institutions of higher education; provision of fellowships for study and research; support for means to ensure equivalence of academic diplomas and degrees; protection of copyright in accordance with the terms of the international conventions; establishment of a commission to supervise the implementation of the agreement.

Although the exchange agreements all include in their articles the points summarized above, there are certain specific aspects in some of them which need to be emphasized. The agreement with Belgium includes the encouragement and promotion: of co-operation between universities, schools and educational establishments, science laboratories, museums, libraries and scientific and artistic associations; of visits and tours of pedagogic interest by teachers and educational specialists. It also includes, as does that with the Republic of Korea, the adoption of a favourable attitude to the creation of educational centres, libraries, scientific institutions of an educational character, museums, arts centres and literary societies.

The agreement with Brazil provides for nationals of either country to pursue their studies in the other, e.g. the parties agree to: (a) permit students to move from either country to the other; (b) facilitate the enrolment of students in higher educational establishments subject to meeting the enrolment requirements for their own country; (c) recognize, in the student's country of origin, studies carried out in the other country; (d) examine the possibility of awarding advanced study grants in either country to nationals of the other.

As regards the countries of Central America, the individual instruments include specific agreements first to co-operate in a project comprising the establishment of a Central American Library in Mexico and of Mexican libraries in Costa Rica, El
Salvador, Guatemala (Mexican section in the National Library), Nicaragua and Panama; and secondly to establish an institute for anthropological and historical research and for social studies of common interest.

The agreement with Ecuador provides for co-operation in the following areas, *inter alia*: reciprocal awards of fellowships, annual exchange of teachers, exchange of specialists, reciprocal publicity by exchange of books and pamphlets, exchange of official publications, and facilities for exchange arrangements in respect of the distribution and sale of publications.

Particular attention is given in the agreement with France to technical and scientific co-operation between the two countries.

The agreement with Peru covers, *inter alia*, protection of the historical and artistic heritages of the two countries and provides for the foundation by each country of an institution to exhibit collections representative of the pre-Hispanic cultures and folklore of the other. In addition, the two countries agree to exchange duplicate archaeological specimens or copies thereof, and information, research and teaching staff, 'to combine the efforts of both countries to establish the origins of American cultures and their manifold contacts and influences'.

The agreement with the USSR provides for reciprocal contribution 'to the exchange of experience obtained and advances made in the domains of science, the humanities, technical and scientific research, technology, education and sport ...' and to 'fostering the growth of relations in the domain of art and culture'.

In the agreement with Venezuela a special point is made of the creation of a Venezuelan section in a library in Mexico City and a Mexican section in the National Library in Caracas.

*Technical assistance*: A common feature of the agreements signed with Costa Rica, El Salvador, Honduras and Nicaragua is the intention that they shall produce an 'effective and growing collaboration towards the promotion of the parties' economic and social development', and with the aim 'of giving such collaboration a more organized character, extending its scope to the domains of greatest mutual interest and facilitating the exchange of knowledge and experience in technological, economic and administrative matters'.

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The technical assistance provided for in each agreement may, subject to variations of phrasing in some cases, take one or more of the following forms: expert missions; provision of fellowships; provision of technical and scientific equipment and materials for experimentation, demonstration or teaching; organization of study and research programmes, cycles and seminars, etc.; exchange of documentation, bibliographical material and audio-visual aids, and organization of conferences and symposia to promote the free flow of technical and scientific knowledge; any other mode of technical cooperation which may be deemed appropriate.

The agreements signed with these countries of Central America further deal with questions of specific interest for the region, and the programmes and plans of operation to be agreed according to the principles laid down in each agreement.

In the agreement concluded with Israel, the signatory countries agree 'to increase technical co-operation with one another as also within the framework of multilateral projects, principally in the following fields: public health; agricultural development; soil conservation; desalination of water; water utilization for irrigation and other purposes; cooperation in the execution, in the territory of third parties, of water utilization projects; planning of the utilization and development of natural and industrial resources; utilization of nuclear energy for peaceful purposes; exchange of experiences in fiscal and financial matters. The co-operation can take the form of: (a) exchange of experts, researchers and technicians; (b) organization of study courses and award of fellowships; (c) donations of scientific and technical equipment; and (d) exchange of documentation.'
At the end of the 1968/69 school year, a comprehensive system of evaluating the work of elementary schools was tried out for the first time in the Socialist Republic of Croatia (SRC), raising a number of essentially new social and educational problems, both in the evaluation of school work, and in the development of self-managing schools.

The author starts by discussing education against the background of the new Yugoslav social and economic order. Emphasizing that progressive forces in the schools are increasingly urging changes in the school's place in society, he insists that self-government must be brought in more rapidly and more vigorously, so that labour organizations in the educational field come to enjoy the same status as those in other sectors.

Self-government practices have already been introduced fairly widely in Croatian elementary education taken as a whole. The results achieved by school associations and other training and educational institutions that have taken over a number of functions from the State are specially noteworthy.

If educational workers are to succeed in forging the decentralization of education into a useful instrument, they must link up as closely as possible with other...
associated workers and the general public, making common cause with them in the achievement of self-government.

The self-governing school must be considered in its natural and fullest form. It does not consist purely and simply of the teachers or the school collective to which it owes its existence, working conditions and income; those whom it exists to serve — i.e. the pupils — are also part of it, and must therefore be associated to the greatest possible extent with the creation of the self-governing school.

According to the relevant legislative and political texts, educational workers' income is based on the curriculum followed and the results obtained. In future, practical school programmes will come to serve increasingly as the basis for fixing labour contracts and salaries related to job performance, replacing the former practice whereby the funds allocated to a school were determined by conventional criteria, such as the numbers of pupils and teachers, while the most important factors — teaching and its results — were ignored.

Self-government based on the principle of the distribution of incomes according to results achieved (job performance) will undoubtedly stimulate teachers and school collectives, thereby making a valuable contribution to the advance of training and education. Such conditions necessarily entail the conclusion of labour contracts based on the cost of education, a concept which needs to be clearly defined in the Croatian context.

The most accurate way of doing so would be first to determine what enters into this cost and what price should be attached to each component. In the case of the elementary school, according to the relevant legislation and judging by experience so far gained, the cost of the education provided there should comprise: salaries, related to the extent to which the community's education needs are met, and aligned with the earnings of those engaged in comparable work in other labour organizations; statutory and contractual obligations; expenditure on materials and supplies, based on actual needs; amortization of equipment and buildings; capital (working, reserve, and joint expendable); capital construction funds, which might be pooled within the general framework of socio-political associations.

It is impossible, for certain social, political and other reasons, for labour organizations in the education sector to
enjoy exactly the same status in respect of working methods and earnings as those in the economic sector; in other words, they cannot operate in strict conformity with the principle of the free play of the market forces generated by the law of supply and demand. It is none the less realistic, essential and inevitable that we should work towards a calculated economic cost of education that would provide the basis for contractual accounting between educational establishments on the one hand, and the community on the other.

Self-government in the education sector cannot be translated into reality solely through the creation of income on the basis of a contractual programme of work and the cost of carrying it out; the determination of job performance also comes into play. The second part of this article therefore describes how the results of elementary school work are assessed in the SRC.

At the end of the 1968/69 school year a comprehensive system for evaluating the work of elementary schools was put into practice for the first time, on an experimental basis, in 56 communes in the SRC. The project had been thoroughly prepared by educational and teaching services, elementary school associations and education associations working together. Educational advisers, headmasters, educational and other psychologists, elementary school teachers, and civil servants and technical experts from education associations took part in the work. The participation of government bodies in school affairs is being phased out in Croatia, the place of the State as an equal partner with the school and its educational workers being increasingly taken by those directly responsible for the school's work and those who directly or indirectly benefit from the results of training and education.

The elementary school cannot continue as a State institution staffed by civil servants. Schools must operate to an agreed programme based on income and the cost of providing education; but the cost of education and school income must be worked out in quantitative terms based on actual expenditures and, moreover, must take account of job performance. An appropriate system for objectively evaluating the schools' qualitative and quantitative achievements must therefore be worked out.

Some experience in this respect has already been acquired in the SRC. The experimental scheme under review attempts to record more and more completely the results of teaching and supplementary training and education, not merely quantitatively,
but also qualitatively, i.e. functionally. Besides the results achieved in instruction proper, the new system also assesses in the appropriate manner a school's general aesthetic appearance and sanitary conditions, the development of its educational structure and the organizational standards of the actual teaching and of the school as an organic entity. Free activities in school, and the part they play in satisfying the pupil's interests, aptitudes and affinities and in encouraging social habits and qualities, the induction of the pupils into self-government, the inculcation of human and democratic attitudes and of morality, industry and other desirable qualities, are also assessed. Lastly, the school's contribution to the pupils' health and physical development and the part it plays in the general cultural and public life of the community it serves, also come under scrutiny.

At the end, the author gives his answer to the question: what can be expected of such an evaluation of the work of elementary schools when the system is consistently applied with all its - in particular economic - consequences; describing by way of amplification what has already been achieved. Among other things, it helps teachers to gain a better insight into their pupils' performance, in addition to a useful reaction to their own work; moreover, the interest of the staff and school in adopting more rational and efficient teaching methods and aids, and new forms of contemporary educational and training practice, and in themselves getting further education and continuously improving their skills, is enhanced. It is therefore to be expected that as time goes on, a valuable differentiation between teacher and school, their objective comparison, and a helpful spirit of competition between them, will become increasingly apparent. Similarly, education associations, the public who benefit from education, and socio-political associations are obtaining and will continue to obtain increasingly reliable yardsticks with which to review objectively the situation and problems involved, to carry out a correct development policy for elementary schooling, and to create the indispensable prerequisites for raising the standards of elementary schooling more rapidly than before.

Following the trial run, the new system of evaluating the work of elementary schools will probably be introduced throughout the SRC in the 1969/70 school year, or at least in all communes where the local education association takes it up.

Abstract prepared by the Yugoslav Institute for the Study of Scholastic and Educational Problems, Belgrade.
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| Bibliographical data | Objave (Ljubljana), 1969, br.2-3, str.32-41 |

| Translation | Department of Education and Culture of the SRS. The Higher Education Act. (Official Gazette (Ljubljana) 1969, nos.2-3, p.32-41) |

| Keywords | Yugoslavia admission requirements educational legislation educational personnel higher education student organization |

In 1968 and 1969, special steps were taken to develop higher education in Yugoslavia. The organization of the network and the structure of institutions of higher education were rationalized, some institutions being abolished and others merged. The reform also gave students more say in the management of the institutions.

In 1969, Parliament passed a new Higher Education Act. Under the general clauses of the new Act, faculties, higher schools, academies of the arts, and colleges are all higher education institutions; their work is of special social significance; and the University of Ljubljana is a compulsory association of faculties.

The Act allows higher education institutions to group together to form associations, which are corporate bodies with legal status. To encourage the spread of modern teaching methods and scientific work, these institutions, associations and the University of Ljubljana are required to collaborate, not only with one another but also with economic, scientific, educational, cultural and labour organizations and associations.

The functions and structure of the University of Ljubljana and higher education associations and institutions are defined in their statutes, which are subject to parliamentary approval.
Education and Culture is responsible for ensuring that the work of these bodies complies with the provisions of the Act.

The second chapter of the Act deals first with the tasks of higher education institutions. Faculties and institutions train and educate specialists and young scientists to university degree standard and are responsible for organizing and developing scientific research. Arts academies train and educate specialists and young artists to university standard and stimulate artistic activity in their respective fields, in which they are also responsible for initiating and developing research where this is provided for in their statutes. Colleges train and educate specialists to diploma level and may initiate and develop scientific research if their statutes so provide.

Students enrol for their first year on a competitive basis. All pupils who have successfully completed the curriculum of an appropriate secondary school may enrol at an institution of higher education. Candidates who have been through a secondary school other than one recognized for enrolment in a given institution may enrol with the latter by passing the entrance examination. The Act entitles persons who have not attended a secondary school to enrol at the institutions provided they have been working, and have given satisfaction, for at least four years in the economic or a social sector and pass the entrance examination. Candidates with the appropriate academic qualifications who meet the other requirements prescribed in the statutes of institutions authorized to organize postgraduate studies may enrol for postgraduate courses. The Act makes provision for the enrolment of external students at these institutions.

Under the new Act, students have both the right and the duty to take part in the work of the governing bodies of higher education institutions and the university, and those of other institutions dealing with students' health, social and financial problems; students may also found scientific, cultural and other societies.

The course of study normally lasts four years at faculties, higher schools and arts academies, and two years at colleges, the actual duration of studies being laid down in the statutes of the institution concerned. Faculties and higher schools may provide postgraduate courses for master's degrees and special diplomas in those disciplines in which they are carrying out research; similarly, arts academies may organize
postgraduate courses in their subject areas. Postgraduate instruction normally lasts for two years. Doctor of science degrees are conferred by the faculties, and such higher schools as are legally empowered to do so, on those candidates with the appropriate academic qualifications who have published scientific papers, or who have done outstanding specialized work or achieved outstanding scientific results, provided they pass a viva voce examination and successfully defend a dissertation accepted by the examiners.

The academic staff at faculties, higher schools and academies of the arts is made up of full professors, associate professors and docents. Auxiliary and practical teaching and technical instruction are provided by lecturers, readers and such other categories of assistant as may be provided for in the statutes. Research at faculties and higher schools is carried out by scientific advisers, senior scientific officers and scientific officers.

The academic staff at colleges consists of professors and lecturers. Auxiliary and practical teaching and technical instruction are provided by assistants and such other categories of teacher as may be provided for in the statutes.

Academic staff, scientific personnel and other assistants are appointed by the academic and scientific council of the institution concerned. Full professors and scientific advisers serve for seven years, and associate professors, senior scientific officers, docents and scientific officers for five. All appointments are subject to renewal. Assistants are appointed for three years, and other categories of teaching staff for the periods prescribed in the statutes of the institution concerned. College professors are appointed for five years, lecturers and other assistants for three years in the first instance, their appointment being subject to renewal. Academic staff, scientific personnel and other assistants at higher education institutions who have passed the age of 60 are not eligible for further appointment.

The authorities responsible for institutions of higher education are: the council (of faculties, arts academies, higher schools and colleges); the managing committee; the academic and scientific council (in the case of faculties and higher schools); the academic and arts council (in the case of academies of the arts); the staff council (in the case of colleges); and the director of the institution concerned (dean
of faculty, rector of academy, director of higher school or college).

The council of an institution of higher education includes members elected by the labour association of the institution from among its members, representatives of the student body, and representatives of the community association, whose numbers are laid down in the statutes. The last-named category is nominated by Parliament or by such labour and other organizations as it may designate.

The council adopts the institution's statutes and other main instruments, together with its budget and annual accounts, decides on the allocation of teaching posts, reviews the curriculum, and performs such other functions as may be designated in the Act or statutes.

The academic and scientific council, consisting of all the senior teaching staff and scientific personnel plus representatives of the assistants and student body, deals with business arising out of the institution's instructional and research or artistic activities, draws up the teaching plan and examination programme, approves the curriculum, makes recommendations about the allocation of teaching posts and discharges such other functions as may be designated in the Act or statutes. Every institution of higher education has a council for each intake year, made up of the students, professors and assistants of the class in question.

The director of an institution of higher education and his deputy are elected by its council from among the senior teaching staff on the recommendation of the academic and scientific council. He is an ex officio member of the management committee, which performs the executive functions designated in the institution's statutes; its chairman and members are appointed by the council. Day-to-day financial, economic, administrative and office business is dealt with by the secretariat under the direction of the secretary.

A separate chapter of the new Act is devoted to the University of Ljubljana, a compulsory association of faculties, comprising: philosophy; law; economics; natural sciences, mathematics and technology; architecture; building, construction and surveying; electrical engineering; mechanical engineering; medicine; and bio-engineering. The university is responsible for developing, co-ordinating and directing the teaching and scientific work carried out in each faculty, and
takes decisions on matters of common interest to all faculties, as prescribed in the Act and University Statutes. The university may include research organizations, common services meeting the needs of two or more faculties, students' halls of residence, and other organizational units established to help students.

The governing bodies of the university are the University Council, the Academic and Scientific Council, and the rector. The University Council is made up of: members nominated by Parliament; two members from each faculty, elected by the faculty council; one member from each faculty chosen by the students from among their number; and representatives of labour and other organizations. Parliament decides which labour organizations shall be so represented. The Academic and Scientific Council is made up of: the rector, who acts as chairman; the vice-rector; the faculty deans; one member from each faculty elected by its academic and scientific council; and two representatives of the student body. The work and general activities of the university are discussed each year by the University Assembly. This body is made up of all the members of the academic and scientific councils of the various faculties. It elects the rector and vice-rector from among the full professors on the university staff.

The Act also deals with the organization of the academic and scientific work of the university and with its financing, laying down that the university itself, and higher education associations and individual institutions, shall be financed in accordance with the provisions of separate regulations.

Abstract prepared by the Yugoslav Institute for the Study of Scholastic and Educational Problems, Belgrade
The work has four parts. The first deals with the socio-economic functions of elementary education in conditions of developed production and workers' self-management. It is an undisputed fact that elementary education is the foundation of the entire academic system and the surest way of raising national cultural levels. Moreover, under the Yugoslav Constitution, it is the duty of the community to provide elementary education. The constant heightening of the desire for education is one of the most important factors influencing contemporary educational policy; its most striking consequence is the extension of the period of compulsory education.

Proceeding from these basic functions of elementary education and from accepted social trends, a number of aspects, at national and federal levels, are discussed: the present range and development of elementary education; the status of teaching staff; the ratio of staff to classes and pupils; and the financing of elementary education both as regards total budgetary provision and average annual expenditure per pupil.

It is proposed that every child from the outset should enjoy an equal chance for a decent place both in the vertical educational system and on the ladder of social labour. Elementary education, as a major element of social labour, has its own economic value and
price in the total national wealth; in this context the socio-economic relationships and communications between elementary schools as working organizations on the one hand, and the representatives of the community's stake in elementary education on the other hand are discussed.

In the second part the authors endeavour to show that the law of values — taken as the broad framework for any economic approach to education — favours optimum structuring of the Yugoslav economy. On the other hand, it calls for an optimum combination of the production factors, both at the level of the economic unit and of its broader associations, in order to reduce to a minimum the input of labour for commodities of a given consumer value.

The pattern of vocational skills cannot be fashioned at will, for it is just as complex and unforeseeable from one single centre, as the entire economic structure. The pattern must correspond adequately to the general economy and to the social services, and can therefore be constructed in the right proportions only if it is related to their developmental needs. The process must therefore be carried out objectively and developed on the basis of the true demand for particular categories of skilled workers, using the actual cost of educating and training a given cross-section of skilled workers.

In the third part, attention is first drawn to the critical economic situation of education and its consequences. The history of the country's economic and social development and the essence of the centralized system of planning education are studied in some detail. An attempt is made to establish what repercussions the new economic and social relationships, based on income and self-management, will have on the position of education in the economic ladder, and whether, as a new organizational form of social labour, they could not prove more effective in bringing technical education into line with the community's needs for education in general.

It is shown that, as a result of the rapid development of the economy, the socio-economic structure of the population has changed greatly and that there has been a striking expansion of education over the past few years. Attention is also drawn to certain unfavourable trends apparent at the secondary level, for example the distribution of pupils between schools is unsatisfactory in the light of the changes taking place in the country's economic, technical and technological structure. For the most part, secondary commercial, business or trade
schools are being opened, although some are being enlarged and new ones built. The lack of balance between the existing vocational school structure and the pattern of skills needed for the jobs available in the country's economy is emphasized.

Two main economic forces act on the vertical and horizontal patterns of technical education, namely: (a) labour organizations and their associations that need skilled workers as the human component of their production processes; and (b) the individual's interest in improving his skills through education for the purpose of earning the maximum amount over the longest possible time.

The authors consider that the country has reached a critical point in its technical, technological, economic and social development; this view is supported by the experience gained in the course of Yugoslavia's economic development. It stands at the crossroads between a handicraft and an industrial economy. The artisan pattern and mentality are still dominant. Most operations in industry and other spheres of economic activity are still carried out by hand, with the result that productivity, and hence the standard of living, are still low.

The main forces working for the development of a completely decentralized educational system are: workers acting together in their various labour organizations and associations; the individual (adult or adolescent) who educates himself in order to safeguard his vital economic, cultural and other interests; and the educational workers in schools and other organized units in the educational system.

The cost of education is predominantly economic and is not a technical book-keeping formality. It reflects the equal partnership that exists between those in need of skilled workers and those responsible for educating and training them. Reduced budgets in education will only result in a widespread shortage of skilled labour and a deterioration in teaching methods and techniques. A further consequence would be that the élite of the teaching profession would change to other jobs.

The final chapter discusses which parts of the socio-economic machinery have acted as a brake on education and inhibited the welding of economics and education into a single, integrated process. The causes of this inhibition are clearly defined. At the same time it is emphasized that, in the absence of a
selective economic system and the necessary changes in the economic situation and distribution of the national income, it is impossible to fit education into the framework of economic production in accordance with the principles stated in the book.

If education is to be made an integral part of social production, it will be necessary not only to bring about essential changes in the thinking of the community but also to go into a number of highly complex problems, such as: the cost structure of education and the procedures by which these costs are arrived at; the planning of optimal vocational and educational patterns in individual areas of labour; the measurement of the economic effects of education at enterprise, branch and national level; the development of a theory of skills under the régime of the law of incomes and self-management; methodological aspects of planning the vocational structure.

In conclusion the authors emphasize that they do not claim to have dealt in detail with the practical application of decisions of principle; their sole aim was to construct the broadest possible theoretical platform, from which education should be approached in Yugoslavia's future economic development and in socio-economic relations founded on the principle of income, i.e. in conditions of progressive self-management.
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<td>Title</td>
<td>In: Prosvjetni Vjesnik, Zagreb, 1969, br.8, str.138-145 (Republički Sekretarijat za Prosvjetu, Kulturu i Fizičku Kulturu)</td>
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On 1 November 1969, Parliament passed a new law on the financing of training and education, the main features of which are as follows:

1. It is the people of each commune (parish) and workers in all sectors of organized labour who will in future decide, either directly or through their self-managing associations, how much will be allocated for training and education, and how the funds will be administered and spent.

2. The new system of financing will assure more effectively than did the previous practice that educational policy and the funds available for education are properly co-ordinated, by insisting that those who frame policy will at the same time be responsible for finding the money for carrying it out.

3. Training and educational institutions will acquire the funds needed for their operation on the profit-sharing principle. Their relations with those responsible for providing the necessary money are to be defined in an agreement. The efficiency and outcome of educational and training work are to be valorized in terms of the cost of education.

4. The new system of financing makes it possible to develop training and education as an integral part of
unified social labour. The intention of the Act is to stimulate the public and organized workers, through the granting of concessions, to set aside more money for investment in education. Complete development of the personality, and of the economy and social activities generally, in harmony with the achievements of science and in step with the constant spread of self-management, demands that the total amount set aside by the community for training and education shall increase faster than the growth of national income.

Following the general clauses, the second chapter deals with the financing of elementary education, comprising, for the purposes of the Act, the training and teaching of children of pre-school age, compulsory elementary education proper, and other forms of training and educating children and young people.

Since the elementary education of children and young people is of the greatest importance for everyone in the commune, the new system provides that the public itself shall make education funds available through contributions from personal incomes in accordance with a policy approved by the people themselves. The scale of contributions to the cost of elementary education is established either by a referendum covering all the citizens of the commune or by decision of a meeting of the parish. The statutes of the commune specify which of these two methods shall be used.

The basis for determining how much is needed for elementary education is the quality of the latter, itself fixed by the people of the commune or by the parish meeting. Standards of instruction may not be lower than those fixed for compulsory elementary education in the SCR by the Croatian Education Authority and subsequently endorsed by Parliament.

Elementary education funds are administered by the local Association for Financing Elementary Education (AFEE), made up of all those in the commune who have the right to vote. A single Association may be founded covering two or more communes. The AFEE, working in accordance with its own statutes and in collaboration with other providers of funds, adopts, among other things, a long-term programme for financing pre-school training, compulsory elementary education, other forms of elementary education, and educational and school services. It also puts before the public and the parish meeting a development programme for the corresponding buildings.
To ensure collaboration between themselves and the solution of problems of importance for elementary education as a whole, the parish associations are required to co-ordinate through the Croatian Association for Financing Elementary Education (CAFEE). CAFEE also administers the funds deriving from the State's contribution to the cost of compulsory elementary education, makes grants to communes that do not have sufficient resources of their own, and carries out such other duties as the member associations empower it to perform. The CAFEE Assembly is made up of one representative from each local AFEE and two representatives of each parliamentary committee.

The third chapter deals with the financing of further education, which, for the purposes of the Act, is understood to embrace secondary, college and higher education and various kinds of training for young people and adults aimed at the improvement of their skills. Further education policy is approved by workers in all sectors of labour, and they are responsible for providing the funds for its implementation by making allocations out of their combined profits and incomes. The minimum rate at which the workers are required to contribute to the financing of further education may be prescribed by law. The Act provides that the funds set aside for further education shall be pooled in the Croatian Association for Financing Further Education (CAFFE), which is in fact an association of workers engaged in the economic and other sectors of associated labour. It is directly responsible for financing education, with the task of managing the funds allocated for further education, and is not an association of those whose only interest is in the spending of those funds. Under the Act, CAFFE consists of 70 members representing the economic sector, 30 representing the scientific, educational, cultural and physical training sectors, 20 representing the public health sector and 10 representing State bodies and public political organizations, making 130 in all.

The Associations for Financing Further Education (AFFE) are responsible for financing secondary and higher education, improvement courses, scientific work as a component of the instruction given in institutions of higher education, the work of educational and school services directly geared to the development of secondary and higher education, the award of grants and prizes to pupils and students, the operation of pupils' hostels and student halls of residence, the improvement of the material basis of pupils' and students' standards, the improvement of the material and physical basis of secondary and higher education.
The Act provides that CAFFE shall collaborate with the university and higher education associations and with secondary school associations when drawing up the scales for financing the respective levels of education.

The pooling of funds in CAFFE is not regarded as a permanent measure, but only as a temporary expedient — applicable during a transitional period (not specified in the Act) — until conditions are ripe for the establishment of local AFFEs.

The competent local agent of the administration on whose territory the association has its seat is responsible for ensuring that the work of AFFEs complies with the requirements of the Act. In the case of AFFEs, CAFEE and CAFFE this responsibility lies with the State Secretary for Education, Culture and Physical Training.

The clauses in the fourth chapter of the Act regulate relations between those providing the funds and educational and training institutions. Unlike the previous provisions, the new system makes it possible to establish stable, continuing relations based on approved long-term training and educational policy. Within the framework of a long-term general agreement, training and educational institutions and those providing funds conclude individual agreements regulating in detail their mutual relationship, rights and obligations. The following matters are similarly regulated by agreement between the parties: kind and compass of training and educational work; scale of educational charges and method of payment; method of determining the results achieved; method of settling disputes arising out of the contractual relationship; and other reciprocal rights and obligations.

The main components of the cost of education are specified in the Act. They are: amortization charges; expenditure on materials and supplies; expenditure on the performance of statutory duties towards the community; salaries; and expenditure on the satisfaction of the common needs of educational workers. The salaries of workers with comparable qualifications in the economic and other sectors provide the yardstick for establishing those of workers in training and educational establishments. The Act also regulates the way in which funds are to be allocated for capital construction.

Abstract prepared by the Yugoslav Institute for the Study of Scholastic and Educational Problems, Belgrade
Resolution on the development of training and education under self-management. In: *Scholastic Review and Education Documentation*, Belgrade, 1970, no.1, p.4-20

*Keywords*: Yugoslavia, educational legislation, educational reform, education and development

At meetings of its Educational and Cultural Council and Council of Nationalities, held on 25 and 26 March 1970, the Federal Parliament of Yugoslavia adopted a resolution on the development of training and education under self-management. This marked the conclusion of a lengthy study of current education problems that has made it possible to come substantially closer to the intentions of the Federal Constitution concerning the further development of education and training in the spirit of the self-management political system of the Republic.

In accordance with the power invested in the Federation, the Resolution deals solely with essential proposals relating to the unity of systems and relationships in the training and education sector. It relates to all the peoples and nationalities of Yugoslavia, thereby fully respecting yet breathing life into the constitutional concepts of education as an inalienable and vital element in national cultures and of the legal right of the republics and the provinces themselves to regulate and standardize their education systems.

Thus the Resolution constitutes a general Federal Act in which are laid down the principles governing the development of education and training in the years to come. The practical realization of the system and the organization of the successive stages of education
remain the responsibility of each constituent republic. The Resolution does not therefore go into detail about the forms that education and training should take, but limits itself to fundamental questions of the socio-economic, pedagogic and curriculo-methodological aspects of the development of training and education, thus providing a corpus of guiding principles and ideas for long-term work. The Resolution is in five chapters.

The first describes the lines along which the training and education system has so far evolved. It also includes a number of general clauses providing the point of departure for further developments. It stresses that the level attained in the development of production and social relationships now calls for fundamental changes in training and education.

The second chapter deals with the material conditions required to ensure a fuller realization of the social role of training and education and their integration into the general socio-economic system; it also prescribes how the several types of education are to be financed.

The Resolution proclaims the right of the workers to wield more influence over all the social aspects of their labour, provided they, in unison with other citizens, are the main driving force behind the further development of educational activities. It is both their right and their duty to decide all key issues of education policy. The socio-economic interests of those fundamentally responsible for social production, workers and educationists alike, can best be satisfied if they are adequately and directly expressed in terms of education costs and incomes. Workers and the education personnel must be on an equal footing, as partners, when it comes to establishing levels of costs in the light of the curricula and the quality and results of the work of educational institutions.

The Resolution provides for the setting up of institutions of mutual assistance and of machinery for speeding up the development of education in the economically underdeveloped republics and regions. It is emphasized that a policy of credits, scholarships and other measures must be introduced to ensure that satisfactory conditions are created for training and educating students from underprivileged families, i.e., that opportunities of further education should depend, not on the family's financial position, but on the ability and keenness of the pupils and students concerned.
Chapter three defines the aims of training and education: (a) young persons and adults alike should, first, learn the principles of science in order to take full advantage in their work of the advances in science and technology that are changing the nature and structure of employment; (b) they should adopt a positive and responsible attitude to their work as the source of all wealth and the yardstick for their personal economic and social position; and, (c) develop a sense of the rational and cultural aspects of labour.

The Resolution advocates more flexibility in training and education; every stage of education beyond the elementary must inculcate knowledge and develop abilities that make it possible to combine further education and work. All aspects and forms of education, whether for young persons or for adults, are equally privileged, constituting as they do inseparable parts of one undivided system.

All those who play a part in promoting social evolution, especially labour organizations and socio-political associations, must in future systematically expand in-service education as a component of the further education programme — without upsetting labour contracts.

Hygiene and physical training should be inseparable elements of educational activity associated with young people's recreational activities. Physical culture must be made more effective and taught by the classic method: the lesson.

The fourth chapter provides for the changes that will have to be made if all forms and aspects of training and education are to be furthered. The Resolution starts from the premise that the education system is first and foremost one of curricula; forms of education take second place. It therefore refrains from prescribing one uniform system, confining itself to providing adequate guidelines for the continued development of educational activity in accordance with the requirements and prospects of a self-managing socialism.

The training and instruction of children of pre-school age lays the foundation of the socialization of the child and of its physical, medical, aesthetic, intellectual and moral development. It is therefore necessary not only to strengthen the part played by the family, but also to expand considerably and speed up the growth of the network of pre-school institutions (half-day, full-day, weekly; seasonal schools; various facilities for play and recreation) and to
ensure that the children are given expert attention. Pre-
school and elementary school curricula must be co-ordinated,
and, where necessary, pre-school institutions linked organiza-
tionally with elementary schools.

The eight-year compulsory elementary education and training is
the groundwork for all subsequent schooling and further edu-
cation, and is one of the most powerful shapers of personality.
To raise standards of elementary education and training to the
highest level, curricula must be enriched, rationalized and
modernized. Apart from regular instruction, curricula should
provide for supplementary and optional tuition, including
aspects of production and technical skills that will be bene-
ficial to pupils.

Post-elementary education and training must be forged into a
powerful instrument for developing the creative and cultural
potential of the nation's manpower. At all later stages of
education, the existing system must be structurally changed in
order to overcome the rigidity, isolation and self-centredness
of certain educational attitudes; opportunities of further
education must be created for all skilled workers in accord-
ance with the development of science and technology, the chan-
ging nature of labour, and the growth of cultural needs. The
Resolution then draws attention to the indispensability of
broadening the general content of all forms of secondary edu-
cation. A dynamic and flexible system of highly diversified
teaching programmes, kept constantly up to date, will have to
be built up, both the content and the organizational aspects
of which must be interconnected horizontally and vertically so
as to provide the opportunity of acquiring and improving
skills.

The Resolution emphasizes the need for profound changes in and
the constant improvement of higher education; as a powerful
instrument in the transformation of society, higher education
must be made more accessible to all levels of the population
than in the past. Moreover, institutions of further and
higher education must offer a wide choice of curricula and
courses of study, to guarantee that society's highly diversi-
fied needs are satisfied. It follows that the system under
which all courses of study, no matter what the stage of higher
education concerned, were of equal length will have to be
abandoned. Institutional arrangements for providing higher
education at various levels and in different forms need not be
uniform. The introduction of better financial and staffing
conditions should open up and broaden opportunities for
The vocational and technical education system of today has developed from the schools of the early F2U (on-the-job industrial training) system and the subsequent trade schools and F30 system (industrial training schools of State labour reserves), former pupils of which form the nucleus of skilled workers in key jobs at most of the country’s metallurgical combines, coal mines, engineering works, textile factories and State and collective farms. The organisational forms and methods used in the training of skilled workers have developed in accordance with the changing nature of their work and of the socio-political tasks confronting the State. An impressive corps of industrial training teachers and instructors has been formed and the standard of vocational training has been improved. The principal innovation introduced by the decree is the creation of establishments for workers’ vocational and technical training combined with secondary education.

The need for an automatic link between vocational education and the raising of the cultural and ideological standards of the younger generation was voiced by Lenin in his address to the Third Congress of the Komsomol, in his remarks on N.K. Krupskaja’s theses on polytechnical education and in a number of other speeches. This requirement was subsequently embodied in the Party’s programme which the decree under
discussion is designed to implement with respect to the tasks of scientific and technical progress. The Central Committee of the CPSU and the USSR Council of Ministers emphasize that, at a time when the material and technological foundations of communism are being laid and the achievements of science and technology introduced into the national economy on a large scale, it is essential that persons being trained for skilled work in the more difficult occupations should have a secondary education.

Vocational and technical educational establishments should gradually be transformed into vocational-technical colleges offering a 3-4 year course combining specialized vocational training with a secondary education for young people who have completed courses at 8-year general schools.

The implementation of this important measure will not only raise the standard of workers' vocational training but will also help to achieve the national goal of universal secondary education for the young. Persons who have completed courses at secondary vocational and technical colleges will be awarded a diploma certifying that they have both attained a given vocational standard and received a secondary education.

Under the terms of the decree the 3-4 year course at vocational and technical colleges is to be provided initially for the training of skilled workers in the most difficult occupations, for which a general secondary education is required. A list of the trades and specialities in which training is provided for skilled workers in combination with a secondary education has been drawn up.

Before the promulgation of the decree, 156 establishments had already been wholly or partly reorganized on the basis of a 3-4 year instruction period and over 44,000 students were already receiving a full secondary education together with their vocational training. Notwithstanding the fairly large numbers involved, however, the system was still somewhat experimental in character. In 1969, 60,000 students were enrolled in these establishments; by 1975, this number is expected to reach 300,000.

At present, the standard curriculum of the 3-year vocational and technical colleges is based on that of the 2-year colleges as regards vocational and technical subjects and on that of the general secondary evening institutes as regards general subjects. Under the new decree, however, steps are
being taken to draw up special curricula and syllabuses that will ensure the necessary link between the teaching of specialized, general-technical and general-education subjects and eliminate any duplication of content. The organic link between vocational training and general polytechnical education is ensured not only by the use of rational curricula and syllabuses but also, and to an equal extent, by the organization of the educational process in each individual establishment. This ensures that the student's basic study of the sciences in the context of secondary education helps him to master his chosen vocation, while at the same time his study of the vocational and technical syllabus helps him to acquire a sound grasp of general subjects.

While the vocational and technical colleges are gradually being transformed into establishments providing vocational training in combination with a secondary education, the task of training skilled workers over the next few years will continue to devolve for the most part on vocational and technical colleges of the conventional type. Accordingly, steps are being taken, here also, to rationalize the process of instruction. The curricula of these establishments were revised in 1966-1968 and the revision will continue.

A great deal has been done to improve the equipment of industrial and theoretical training establishments and the decree provides for still further improvements.

Curricula and syllabuses, equipment, instruments, teaching materials, textbooks and visual study aids play an essential part in the attainment of a high standard of vocational training; but the decisive factor is the standard of organization of the educational process in the college itself. In this respect, the vocational and technical training authorities and the teaching staffs of many colleges have achieved good results. Teachers and technical instructors approach their task creatively, employing effective teaching methods, stimulating the intellectual curiosity of their students, making full use of technical aids to instruction and emphasizing the links both between different subjects and between industrial and theoretical training.

One of the most important principles of vocational training is that of vocational instruction in and through the process of productive work – the work in question being in this case entirely subordinated to the instructional and educational objectives. Such 'on-the-job' training is designed to teach
students not only to work in their chosen field but also how
to plan their work rationally, choose the most effective
technical processes, forestall and prevent breakdowns and
spoilage and put the principles of the scientific organiza-
tion of labour into practice in their work.

The decree requires that students shall be provided with practice
facilities and with ample opportunities of studying up-to-
date production techniques, their industrial practice work
being supervised, where necessary, by engineers, technicians
and skilled workers, who are to be remunerated for such
supervisory duties.

The decree embodies measures for improving the communist
training of the students, developing their ideological convic-
tions, imbuing them with high moral standards and a con-
scientious attitude towards work and social property. Great
importance is also attached, in vocational and technical
training establishments, to physical culture and group cul-
tural activities. In accordance with the decree, mass cul-
tural and physical culture and sports activities are being
developed; and the network of sports and health camps,
houses of culture, clubs and stadiums is being expanded.
Trade union organizations are required to allow students to
make use of the numerous trade union palaces and houses of
culture, and other facilities on the same terms as workers
and employees of the enterprises and organizations for which
these students are being trained. At the same time, the
staffs of enterprises and organizations are allotted a more
important rôle in the training of students and it is recom-
mended that more production specialists and veteran workers
should be enlisted to help train young people.

It is provided in the decree that the post of assistant
director for culture and educational work in vocational and
technical training institutions shall be replaced by that of
deputy director for instructional and educational work,
carrying considerably wider powers than the existing post of
assistant director for cultural and educational work, but
also far greater responsibility. The decree calls for
increased publicity to the country's vocational and technical
education system and more films and television programmes on
the studies, work and life of students in this type of educa-
tional establishment. The State committee for vocational and
technical training, the USSR Ministry of Higher and Secondary
Specialized Education, the USSR Academy of Pedagogical
Sciences and other all-Union ministries and departments are
required to ensure that fuller attention is given, in the corresponding scientific research institutes and higher educational establishments, to investigating changes in the occupational composition of the working population due to technical progress, and to drawing up long-range plans for the training of skilled workers to meet the needs of the various branches of the national economy. Already, in ministries and administrative departments, over 20 scientific subsections have been set up in which more than 600 scientific researchers are engaged on the investigation of various problems relating to the economic, pedagogical and psychological aspects of vocational training for workers. Preliminary results have been produced by the all-Union Institute for Scientific Research on Vocational and Technical Education. The Presidium of the USSR Academy of Pedagogical Sciences recently set up a scientific council for questions of vocational and technical education, with the task of co-ordinating the scientific activity of organizations and establishments engaged in studying the psychological, physiological, dialectical, educational, technical and economic problems of vocational and technical education.

The development and further improvement of this branch of education depends to a large extent on one decisive factor - the ideological maturity, scientific knowledge and teaching skill of the teachers, industrial instructors and other staff of our educational establishments. The State committees and territorial, regional and municipal vocational and technical education authorities, with the assistance of local party organs, have taken various measures to improve the quality of the persons in charge of technical education.

Another extremely important task is that of expanding the training programme for technical instructors in industrial secondary schools. The national economic plans for 1971 and subsequent years make provision for a considerable increase in the number of such establishments.

There is now an all-Union institute for the improvement of workers' qualifications, with a number of branch institutes, as well as an extensive system of seminars and courses organized by the USSR Ministry of Higher and Secondary Specialized Education. In addition, there are university faculties providing refresher courses for teachers of social and specialized subjects. But this is only the beginning of what has to be done in their very important field.
The Central Committee of the CPSU and the USSR Council of Ministers have established an effective form of advanced training for technical instructors, viz. refresher courses in the most up-to-date enterprises, building projects and other organizations. Measures are to be taken to improve the social amenities and housing conditions of workers in this branch of education. The construction of rural vocational and technical colleges is to be accompanied, as a general rule, by the building of staff living quarters.

In order to expand the facilities for training skilled workers, it is necessary both to build new vocational and technical training colleges and to enlarge existing ones. Steps will therefore be taken to enlarge the network of such colleges as required by the development of the various branches of the national economy, and to distribute them rationally among the various regions of the USSR.

Abstract prepared by Mr. S.Ja. Batyšev, Corresponding Member of the USSR Academy of Pedagogical Sciences, Vice-President of the State Committee for Vocational and Technical Training, attached to the USSR Council of Ministers
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<th>Author</th>
<th>Ogorodnikov, I.T.</th>
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<td>Title</td>
<td>Учебное пособие д/я студентов педагогических институтов</td>
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| Keywords                        | USSR teacher training, secondary education |

**This book was recommended for publication by the jury of the open competition for manuals on education for use in teacher-training institutes and is designed for the educational theory course for general secondary school teachers.**

The first of the five parts into which this work is divided concerns the basis of the science of education. The five chapters deal with: the subject and method of educational science; development and education; the aim and tasks of communist education; general, polytechnical and vocational education; the public education system. Soviet educational science treats education as an objective, natural phenomenon arising from the circumstances of social development. Educational research is guided by Marxist-Leninist philosophy, which constitutes the only scientific method for exploring the real world and developing scientific knowledge. The problem of development and education is covered from the following aspects: bourgeois theories on the development and education of the young, the Marxist-Leninist theory on development and education, education and developmental features of various age groups, and the observation of pupils in schools. The aims and tasks of communist education are formulated, with special reference to the all-round development and training of the young, and followed by a description of the general, polytechnical and vocational
education, in which the concepts of the main forms of education and the links and relationships between them are explained and the basic content of education at the present stage of social development outlined. The last chapter is devoted to the system of public education in the USSR.

The second part of the book deals with the content and methods of communist education and deals in turn with the following questions: the basis and general methods of communist education, the inculcation of a communist outlook, the development of socialist patriotism and proletarian internationalism, the inculcation of a communist attitude to work and self-discipline, the inculcation of a communist attitude towards people, aesthetic education, physical education.

The education of the young is a complex process, covering both the development of their physical and intellectual faculties and upbringing in a communist outlook and code of conduct. This process begins when they are very young and continues until they attain physical, spiritual and social maturity. Education does not come to an end when the pupils come of age and embark on an independent life, but at this point acquires a specific character, determined largely by its close association with the social, political and working activities of people in society.

The basic principles and methods governing the education of the young includes: the fixity of purpose in the education process, the homogeneity and unity of the process, the inseparability of upbringing in a communist outlook and in a communist code of conduct, emphasis on the pupil community, the need to be both exacting towards and respectful of the individual, the principle of parallel action, and the principle of continuity in education. General educational methods can be divided into two groups: methods based on persuasion and methods for the organization and guidance of the children's everyday activities.

The inculcation of a communist attitude towards people provides for teaching children to be sensitive and considerate in their dealings with other people, and to be sincere and truthful, developing in them a collective spirit and feelings of comradeship and friendship, and training them in the rules and habits of correct behaviour.

The third part deals with the theory of teaching: the learning process, the principles of teaching, curricula, syllabuses
and textbooks, ways of organizing teaching work, teaching methods. The learning process, proceeding from the basis of Marxist-Leninist epistemology, is described as a process of perception, comprehension, and reinforcement of knowledge. In describing its application in practice, particular attention is given to the question of teaching children different kinds of proficiency and skills.

The broad principle of teaching is broken down into a number of specific principles: the scientific character of teaching; the establishment of ties between teaching and life; the character-building role of education; the conscious acquisition of knowledge; the thorough assimilation of knowledge; systematic and consistent instruction; gearing teaching to the level of understanding; and visual presentation in teaching.

The chapter on curricula, syllabuses and textbooks deals with the content of education and the principles for the definition of this content at the present stage of the building of Soviet education. Special attention is paid to explaining the role and importance of individual subjects of the school curriculum in developing the mind and character.

Considerable space is devoted to the forms and methods of teaching in schools, including the history and theory of the school lesson and of seminars, ways of organizing manual training and class, group and individual lessons. Among the different types of teaching, special consideration is given to verbal methods, work with books, laboratory work, exercises and written and graphic work; programmed instruction is referred to as 'an optimally controlled system of cognitive classroom activities'.

The fourth part deals with the organization and welfare of the school community with Komsomol and Pioneer organizaciones, out-of-class educational activities, the work of the class teacher and the upbringing of children in the family; it is devoted largely to practical questions of the content and methods of teaching, the theoretical and methodological aspects of teaching being covered in the second and third parts. Finally the various problems of school administration are discussed, including the functions of the school administration, teachers' councils and methodological bodies, and questions of school planning and accountancy.

Abstract prepared by Mr. I.T. Ogorodnikov, Corresponding Member of the USSR Academy of Pedagogical Sciences.
In the Soviet Union, the term vocational and technical education covers the whole system of facilities for training and improving the qualifications of workers: vocational and technical schools; courses and individual instruction organised by enterprises for employees; vocational training provided in some secondary schools. The authors (S.J. Batyšev, S.A. Sobirinštij, V.V. Čebysjev, T.V. Kudrinajev, B.I. Obščenko, I.M. Skorodunov, E.E. Čugunova) outline the most urgent theoretical problems in this field.

The five sections of the book deal successively with: general aspects of vocational and technical training and the theory of vocational education; psychological aspects of vocational training; basic instructional principles of industrial training; aspects of education in vocational-technical schools; vocational and technical training of workers on the job.

The first section contains a brief historical survey of the system for the training of skilled workers in the Soviet Union. It describes the rapid growth of the network of schools and of the number of students, due to the industrialization of the country, and the radical improvement of the whole system of vocational and technical education: the raising of the general educational level of entrants (since 1958, mainly drawn from students who have completed eight grades).
ordinary schooling); the increase in the proportion of time allocated to general technical subjects and other disciplines connected with the mechanization and automation of production; the improvement of the material facilities; the improvement in the training of teachers and workshop instructors. In discussing the need, arising from scientific and technical progress, for a system for training skilled workers, data are given on the change in the structure of the working population: there has been a considerable increase in the proportion of workers belonging to the higher categories, of adjusters and repair workers, and the range of skills required in many categories of jobs has been enlarged.

The first section also describes the relationship between the theory of general education and that of vocational education. The latter is an offshoot of the former but, at the same time, is based on particular methods used in the training for individual occupations. The process of evolving a theory of vocational education means at the same time evolving new relations with general educational theory. This is by no means a matter merely of the general as against the particular; the chief distinguishing characteristic of the theory of vocational education is the theory of industrial instruction.

On the theoretical side of vocational and technical education (teaching of special subjects), there are again certain differences as compared with the teaching of the fundamental principles of science. In the natural sciences, there is greater stress on the purely logical side than in the case of the technical (applied) sciences and the corresponding subjects of study.

The second section deals with the psychological aspects of developing proficiency and skills and making the student 'technically-minded'. It also examines the conditions and principles relating to the development of proficiency and skills; the use of exercises as the basic method in practical instruction and the individual characteristics of students in vocational training; and the psychological characteristics of the various occupations. As regards the use of exercises, great stress is laid on getting students to assess their own work. The fundamental characteristics of the technical mind and how to develop it through the performance of technical design tasks and the solution of technological problems are then dealt with. Psychology has hitherto paid very little attention to the second type of task. Questions relating to the technical way of thinking have, as a rule,
been considered in connexion with the performance of actual technical tasks.

The third section deals with the basic questions of industrial instruction. The various labour processes are classified, for the first time, from the teaching aspect; processes are classified on the basis of whether they can be decomposed into separate operations capable of being repeated. The various forms of instruction (group and individual) are also examined, and a description is given of the character of the various systems of industrial instruction, which differ according to the special features of each different labour process and the form of instruction. Two kinds of exercises used in industrial instruction are analysed, based on two different types of sequence: simple and progressive. In the first, students learn each operation in the process separately, then proceeding to do exercises in carrying out the whole job. In the second case (progressive), a different kind of sequence is used: students, at the same time as learning a new operation, repeat exercises on the preceding operation. The preparation of instructions, including written instructions, is also described. The part dealing with aspects of practical training in the control of automated processes (training operators for the chemical industry, for instance), provides: sample assignment-cards for students; exercises using technological and switching charts, and exercises to be carried out on training machines; instruction in diagnosing technical defects, using training apparatus.

The fourth section is devoted to developing students' interest in their job and developing a creative attitude to work. The following points are dealt with first: vocational guidance and counselling for young people before they enter the school; the social arguments for, and the value to the individual of industrial practice work; the use of positive examples in vocational training; and ways of developing the ability to work independently. The second aspect covers the role played by: the intellectual factors in work; the instructor in the development of creative activity; the collective and the student's immediate surroundings.

The fifth section describes the system of on-the-job vocational and technical training for workers, with reference mainly to the engineering industry. The first stage is the training of new workers by individual instruction or by means of short courses (lasting up to six months); the second
stage involves short courses of in-service training, designed also to extend the range of his qualifications. Curricula and syllabuses are given for each stage of training.
### Keywords

- USSR
- educational legislation
- communist education
- educational research
- educational objectives
- educational theory

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The valuable work done in Soviet educational science is commended and it is noted that its development is closely linked to the outstanding achievements of public education in the USSR. Soviet educational science, on the basis of Marxist-Leninist theory, has evolved a system with new principles, aims, content and methods for instructing and educating the young and training them for working and social life, and has helped to introduce this system into schools. Educationalists are making a valuable contribution towards the work of providing education and a communist upbringing for Soviet people.

None the less, the present state of research in this field is not entirely adequate to meet the need for further development of the scientific basis of education and for new methods of education and instruction for teachers and other members of the national education system.

The reasons for this are analysed and it is pointed out, in particular, that insufficient importance is attached to solving urgent theoretical problems and using the experience acquired by schools, that there are serious shortcomings in the training of teachers, and in the co-ordination, planning and organization of educational research at the national level, and that not enough is done to produce popular works on
educational research, with the result that its practical effectiveness is less than it might be. The need for closer contacts between research establishments and schools, teachers and voluntary organizations is stressed.

At the present stage of the building of communism, educational science is more important than ever, for the transition to full secondary education for all and the need for further improvement both in the content of education and in teaching methods to keep pace with new achievements in science, technology and culture place heavy demands on it. The USSR Academy of Pedagogical Sciences, set up in 1966/67 on the basis of the former Academy of Pedagogical Sciences of the RSFSR, plays a leading part in this work.

The USSR Ministry of Education and the USSR Academy of Pedagogical Sciences are charged with drafting and implementing practical measures designed to raise further the theoretical level and practical effectiveness of educational research and to link such research closely with the development of national education and with the tasks laid down in this sphere by the programme of the CPSU and by the decisions of the XXIIrd Congress of the CPSU.

The decree envisages a considerable enlargement of the sphere of activity of the USSR Academy of Pedagogical Sciences. Apart from research, which will undoubtedly continue to be its main function, it is also responsible for: co-ordination of research in educational theory, general and educational psychology, developmental physiology and defectology throughout the USSR; co-operation in the development of the pedagogical sciences in the Union republics; organization of scientific information on educational and school problems in the USSR and abroad; promotion of popular interest in education. These activities will be carried out in close co-operation with the USSR Academy of Sciences and with its branches and research institutions in the Union republics. The decree lists the specific subjects on which the Academy of Pedagogical Sciences and other educational research establishments are to concentrate.

The co-ordinating duties of the USSR Academy of Pedagogical Sciences include the following: drafting proposals for the main trends in research; inspecting the annual and long-term plans of research institutes, schools, teacher-training institutes and other research institutions.
in higher educational establishments; drafting a national plan for the most important educational research and a plan for the practical application of the results of this research. To this end, a Research Co-ordination Council has been set up in the USSR Academy of Pedagogical Sciences. For the purpose of increasing and systematizing the information available on the content and methods of educational research in the Soviet Union and abroad, an educational information centre is being set up in the USSR Academy of Pedagogical Sciences.

Measures are being taken to increase the number of research students and to raise the standard of training for educationalists, so that the staff requirements of the country's educational research institutions and higher educational establishments may be fully met. Attached to the USSR Academy of Pedagogical Sciences there is now a special in-service training institute for teachers in the education departments of universities and in teacher-training institutes. There is also provision for measures designed to give teachers a much larger part to play in the work of analysing the experience of schools and working out the main problems of educational theory, and to improve and increase dissemination of educational information.

With a view to ensuring the implementation of the tasks laid down in the above-mentioned decree, the USSR Council of Ministers, on 29 August 1969, confirmed the list of the research institutes and other establishments of the USSR Academy of Pedagogical Sciences, based on the list of the research establishments of the former RSFSR Academy of Pedagogical Sciences.

Abstract prepared by Mr. N.N. Serebrov, Candidate of Philological Sciences and Director of the K.D. Ushinskij State Research Library of Education
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<td>Boldyrev, N.I.; Esipov, B.P.; Goncharov, N.K.; Korolev, F.F.</td>
<td>Pedagogika. Uchebnoe posobie dlja studentov pedagogicheskikh institutov</td>
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Recommended for publication by the jury of the open competition for manuals on education for use in teacher-training institutes, organized by the Ministry of Education of the RSFSR and the 'Prosvětěnje' Publishing House (Moscow), the manual contains a systematic outline of the fundamentals of modern educational theory. It refers to recent experience of school work and to the results of the latest research in educational psychology in the Soviet Union and other countries.

The manual comprises three sections: the general bases of the science of education; the theory of education and instruction; and the theory of character education. Appended to each chapter is a list of test questions, covering the main concepts, principles and problems treated in that particular chapter.

The first section opens with a survey of the content and methods of the science of education which answers the questions how and why certain educational phenomena occur. Its aim is to study the educational process in order to be able to see ahead and so to control the process.

Regarding Soviet educational science, which is the science of communist upbringing, the authors point out that it represents a direct continuation and development...
of the Marxist-Leninist doctrine of communist education. Its purpose is to study and analyse both the experience acquired in the education of the young as well as all kinds of experience relevant to the instruction and education of adults. The science of education, unlike the other sciences concerned with the study of man, investigates the intrinsic nature of the education process, throwing light on the structure and mechanisms of this process. It approaches education as a character-forming process; elucidates the inherent laws governing this process and develops a theory and methodology of education. Describing the various branches of Soviet educational science, the authors mention first and foremost, as comparatively independent scientific disciplines, the theory of character education, the theory of education and instruction and school administration. Under the general theory of character education, they mention the following independent sections: theory and methods of physical, moral and aesthetic education. Among the more or less independent branches of educational theory, linked either with the developmental approach or with the nature of education, they include the theoretical aspects of pre-primary education, school education, vocational and higher education, military education, special education, the emergent theory of adult education and the theory of corrective-labour education; closely linked with these is the study of the methodology for the teaching of individual subjects. The independent branches of educational science also include the history of public education and educational theory.

The authors give, as the basic educational concepts, upbringing, education and instruction, and define and explain these terms, demonstrating the links between educational and other sciences.

In answer to questions about the connexion between upbringing and development, and about the place occupied by upbringing amongst the various other conditions and factors which determine a child's development, the authors expound the Marxist-Leninist theory on the development of personality, and indicate the educational significance of this theory. Examining the interaction of natural and social factors in the development of the personality, they lay special emphasis on the arguments for the determining influence of the social factor and on the educational significance of the genetic factor. It is through the development of each child's special interests, needs and bents that his individuality is enabled to unfold.
In order to indicate the role of schools and upbringing during the building of communism, the aims and tasks of communist education are defined: harmonious, all-round development, which has long been one of mankind's aspirations and which is one of the aims in the building of a new society has now become an objective necessity, imposed by the natural development of the production of material goods and works of the mind and by the course of scientific, technical and cultural progress.

The second section deals with a wide range of questions of the theory of education and instruction. Describing the content of the education given in Soviet schools, the authors mention the links between general, polytechnical and vocational education, outline the various theories on the content of education, and analyse the curricula and syllabuses of Soviet schools, as well as the textbooks and teaching aids used. They devote special attention to the content of the courses in the humanities and natural sciences and of manual training.

The development of Soviet general schools as 'labour polytechnical schools' is stressed. Curricula, which include the study of natural and social sciences, the fundamentals of production, art, and physical culture, cover all aspects of communist upbringing and provide an all-round general and polytechnical education.

Concerning the process of instruction, a systematic analysis is made of the acquisition of knowledge and the development of skills and proficiencies, taking the Marxist-Leninist epistemology and a knowledge of the corresponding principles of educational psychology as the basis of the pupils' cognitive activities. The second section also contains a detailed description of the methods and organizational bases of instruction.

The third section of the manual is devoted to a description of the content, organization and methods of character education in the restricted sense of the term. While giving a general description of the process involved, the authors emphasize that the theory of character education, as an integral part of the science of education, is based on the Marxist-Leninist theory of the education of a new type of man and on the general deductions drawn from experience in educational work, and it makes extensive use of the material of the disciplines closely allied to education — philosophy, psychology, sociology, and the physiology of higher nervous activity. Such education
is by its very nature an activity concerned with the future, the content and tasks of which are determined by reference to the prospects of social development. The moulding of a new type of man is an objective process, conforming to identifiable laws, as is the advance of man along the path of progress. In the course of changing and transforming the world on the basis of communist principles, people themselves, their psychology and their moral attitudes also change. An important part of the moulding of the new man is also played by a subjective factor—the system of organized educative influences.

A special chapter on the development of a scientific world outlook stresses this aspect of Marxism-Leninism which, in addition to giving a correct explanation of the world, revealing the objective laws governing the development of nature, society and human thought, also indicates the means for the rational alteration and transformation of the world. The scientific world outlook develops under the influence of living conditions and during the process of learning, of working in society, and of upbringing.

The manual devotes a great deal of attention to questions of moral education, the aims and basic content of moral education in schools, ways and means of providing such education for schoolchildren, and methods to be used. Moral education occupies a central role in the complex process of character-building, its aim being to develop children's moral convictions and ethical standards, and to train them in the correct forms and habits of behaviour. One of its main purposes is to inculcate the spirit of socialist patriotism and proletarian internationalism, which are essential characteristics of the builders of socialism and communism. The authors likewise dwell on the question of developing the community spirit and a humanist outlook. The manual describes socialist humanism as a vital factor of revolutionary ideology and one of the principles of communist morality: not merely preaching love for humanity in the abstract but waging a real and effective struggle for the improvement of the living conditions of the working people. It is based on the mutual respect and comradely mutual assistance of people set free from exploitation. As regards ways and means to be used for the moral education of schoolchildren, the authors speak of the organization of their activities as the basis of such education, of the place of moral education in the process of instruction and of its relationship with work, and of moral education through games and sport. The most important of the means used for this
purpose are persuasion and practical application which, in the school context, are inseparable.

A special chapter of the manual is devoted to questions of 'labour education', the purpose of such education, the educative value of the various forms of manual work for schoolchildren, the principles on which such education is organized. Special mention is made of the importance of work in groups.

The last section of the manual deals with questions relating to the development of volitional qualities of character; the fostering of discipline and decent standards of behaviour; physical and aesthetic education; community life and activities; Pioneer and Komsomol activities in schools; the work of class teachers; relations between the school, the family and society. The last chapter is on the subject of Soviet teachers, who form a numerous element, numbering more than two and a half million, of the Soviet intelligentsia. Teaching in the Soviet Union is one of the most responsible and respected professions. The Soviet teacher has close links with the people, and works in their service; he is a man of the people in the true sense of the word. The teaching profession, say the authors, assumed its true significance after the seizure of power by the workers; and it was not until after the October Revolution that teachers came into their rights and acquired a respected position in society. This is due to the importance of the rôle schools are called upon to play in a socialist country. Everything for man and in the name of man - this principle, underlying the life of Soviet society, is of the greatest significance for the work of Soviet teachers, to whom is entrusted the country's most precious possession - its younger generation.

Abstract prepared by I.K. Ekgol'm, Member of the Editorial Board of the journal Sovetskaja Pedagogika
For the first edition of his book, the author received from the Praesidium of the USSR Academy of Pedagogical Sciences the second of the prizes awarded in memory of the great Russian educationist, K.D. Ustinskiy.

This book is intended for research students and new teachers in higher educational establishments, whatever their speciality. It is in the form of a monograph, discussing problems of teaching in higher education, bearing in mind the continuity between secondary and higher education.

Discussion of important problems of the theory of instruction in higher schools is followed by suggestions for solving them and for further research. Since no single, pre-conceived standpoint is adopted, the reader is able to find his own way about the subject; he is cautioned against a ready-made, dogmatic attitude on the subject of education and stress is laid on the importance of developing a creative approach towards the organization of instructional and educative work in higher educational establishments.

In higher education, as in schools, certain principles for the process of instruction can be laid down. Eight such principles are: that instruction must be of a scientific character and inspired by Marxist-Leninist ideology; that theory must be combined with practice...
and practical experience with learning; that specialists must be trained on the basis of a systematic, consistent plan; that students must be trained to adopt a conscious, active and independent approach to study; that they must learn to combine individual study with group work; that abstract reasoning must be combined, in teaching, with the use of concrete demonstration; that knowledge must be thoroughly assimilated; and that scientific knowledge must be made accessible. Although the book contains material relating to these above principles, they are admittedly not yet universally accepted and some educationists may well refuse to lay down any instructional principles for higher education. No general consensus can be reached until some very serious research has been done.

The organization of higher education and of science is considered by the author as parts of a single whole, since neither can develop without the other. The ensuing discussion of their aims and tasks stresses their class character in a class society. Higher education, developing as science and culture have developed, has since mediaeval times assumed a specialized character in response to the demanding pressures of life.

There is a fairly detailed description of the specialization of higher education both in pre-revolutionary Russia and in the USSR, as reflected both in the character of the higher educational establishments and also in the kind of special subjects and faculties which gradually developed. Special attention is drawn in this connexion to the scientific and educational importance of the universities.

An account of the system of instruction which has developed in higher educational establishments approaches the question from the historical point of view, so that the characteristic features of the course system, the subject system and the combined subject and course system emerge with particular clarity.

Regarding certain special features of the student audience, it is emphasized that, unless teachers are thoroughly familiar with and make a constant study of the students they are teaching, they cannot possibly fulfil their instructional and educative role satisfactorily. Pupils in the senior grades of secondary schools already have to perform the complex mental process of sorting out and selecting incoming information and developing in further detail such parts of it as they require in accordance with their own individual interests and capacities.
At the beginning of their higher education, students continue this process further, and begin the work of reappraising and reconsidering what they have learned at an earlier stage. Teachers must, therefore, have a thorough understanding of these processes, since this facilitates their task and enables them to discover new key points around which to build up their students' knowledge.

There are also various features in students' psychological make-up which teachers should bear in mind in order to ensure that the study process is inspired by a creative spirit, a constant search for new ideas through a combination of individual work with interesting group activities. To this end, all study in higher educational establishments should be so organized that students are able independently to reflect, research, draw comparisons and conclusions, and take decisions.

The curriculum may be considered as a kind of plan for the training of specialists, in which special importance is attached to the general theoretical training of specialists (general scientific, general engineering, etc.). Its basic principles and structure are examined together with the general educational principles for drawing up various time-tables.

The supreme principles of education are set out: its scientific character and its commitment to Marxist-Leninist ideology. In the light of the fundamental principle that it is essential, in higher education, to combine research and instruction, consideration is given to the question of the selection of scientific material for teaching, and to ways of ensuring that students learn about modern science and its achievements, and also about the nature of the various schools of science which have arisen. The discussion of the study of modern methods of scientific research is followed by a description of the educational conditions which can contribute towards the solution of the relevant problems.

The individual search for knowledge is the main characteristic of a student's work, since it constitutes the independent part of his training. It runs parallel to and is closely linked with the teaching process, sometimes, though not necessarily, using the prescribed textbooks, with students taking it upon themselves to go beyond the basic assignments and use additional theoretical and practical material corresponding to their own particular scientific and professional interests, inclinations and gifts, their previous training, their
interpretation of their tasks and duties and, lastly, their ability to work independently. The development of students' capacity for self-education also has implications in terms of educational psychology.

A review of the experience of higher educational establishments in the planning and supervision of students' compulsory independent work deals with the organization of compulsory independent work of various kinds including in particular different forms of 'homework' set on a long-term basis (solution of problems, working out examples, doing calculations and chart work, projects, translations, preparation of papers for seminars, carrying out various experiments, and so on).

Practically the whole of the next part of the book is devoted to problems of teaching in higher education, with reference to various different forms and types of study and work, and to different methods of teaching, viz., lectures, practical work, seminar and pre-seminar work, term papers and diploma work, laboratory work, preparation for yearly projects and diploma projects, tutorials, and credit tests and examinations.

A short account of the educational aspects and purpose of each kind of work and activity is accompanied by a description of the methods to be used for organizing the activities or for supervising students' independent work. In most cases, there is a brief historical account of the development and application of the different forms and methods of learning activity.

A particularly full and detailed coverage is given to the question of lecturing, with special reference to the composition and structure of lectures. A large number of general propositions are advanced, and these concern the whole of the instruction process in higher education, since lectures play a leading part in all types and methods of instruction, and exercise a decisive influence on students' independent study.

The concluding discussion of the theoretical aspects of higher education by correspondence, industrial practice, various educational aspects of programmed instruction, and the question of the elaboration of separate teaching methods for different subjects includes a general outline of suggested methods and an account of the work done in the USSR in the thirties to develop teaching methods for individual subjects.

Abstract prepared by Mr. S.I. Zinov'ev, Professor of the M.V. Lomonosov University, Moscow
This collective work, written mainly by research workers of the Philosophical Problems of Psychology Section of the Institute of Philosophy of the USSR Academy of Sciences, describes, analyses and illustrates by reference to the most recent developments, the principal methodological principles which have determined the progress of the psychological sciences in the USSR during the past few decades. This monograph which is, as it were, a sequel to another collective work, 'Philosophical questions of the physiology of higher nervous activity and psychology', (publ. USSR Academy of Sciences, Moscow, 1963), sums up the results of fifty years' methodological and theoretical research by leading Soviet psychologists, and gives a detailed account of the results of Soviet psychological research in the sixties, comparing it with the leading trends of foreign work in this field. In this connexion, special attention is paid to the findings of the XVIIIth International Psychological Congress (Moscow, 1966).

The first article 'The principle of determinism in psychology' (E.V. Šorohova) contains an extremely close analysis of the fundamental methodological principle of Soviet psychological science: external causes operate through the medium of internal conditions; external influences (including educational influences) produce varying psychological effects, not directly and immediately, but after being refracted through the
psychological state of the individual concerned, through the prism of his thoughts and feelings. By external causes are meant the influences of the outside world, nature, society, other people, etc. By internal conditions are meant the specific features of and laws governing the higher nervous activities, the needs and orientations, feelings and aptitudes of man, and the whole system of acquired skills, habits and knowledge through which man's individual experience and the accumulated experience of mankind are expressed. It is demonstrated, in particular, how this methodological principle determines the methods used for psychological experimentation.

A detailed account is provided of the complex process of interaction between the external and internal conditions which determine psychological development: the interrelation, in this process, of biological (including hereditary), social, physiological and psychological factors, and those of necessity and chance (probability). It goes on to discuss the interrelationship between psychology and cybernetics. In the light of the dialectical materialist principle of determinism mentioned above, the author analyses the Marxist-Leninist theory of reflection, the most representative principle of Soviet psychology: psychological phenomena are a reflection of the outside world in the mind of man, not passive, a mechanical mirroring, but active, linked directly with action, with the transformation of the external world.

An analysis of this unity of consciousness and action is given by L.I. Ancyferova: 'Principle of the unity of consciousness and action and the methodology of psychology'. Man's activities determine the formation of his consciousness, psychological processes and characteristics, while these latter, since they regulate his activities, are a pre-condition for their effective fulfilment. Action, work and consciousness are so closely interconnected that the analysis of his activity, whereby his consciousness is not only reflected but also formed, throws a valid light on his consciousness. Consciousness not expressed in activity is non-existent. Thus the principle of the unity of consciousness and action becomes the basis of all objective methods of psychology. By selecting the correct external conditions, it is possible to produce those forms of activity which unambiguously reveal their psychological content proper. This disproves the theory, deriving from the traditional, idealist psychology of consciousness, that the psychological make-up is something purely internal and inward-looking, while activity is wholly external and non-psychological. The gulf between internal and external is now
being bridged. It is action which now becomes the 'unit' of psychological theory - neither simply consciousness nor simply activity, but the interaction, controlled by the psychological make-up, between the subject - the individual - and the external world. It is from this viewpoint that the structure of activity, the interrelationship of the aim, result, motive, and so on, is examined. The relationship between them varies predictably as the psychological complexion takes shape and develops in the course of activity.

The formation of, and qualitative change in, the psychological characteristics are the subject, in Soviet psychology, of a special principle of development, which is dealt with by G.S. Kostjuk. A detailed analysis is given of the biological evolution and of the history of psychological development on the basis of animal psychology, ethnopsychology, child psychology, etc. While noting several features common to the biological evolution of the psychology of animals and men, the author makes clear the qualitative differences in human psychology in the process of its formation and development. All the relevant material on this subject contained in the cultural and historical theory of L.S. Vygotskij, the theories of later Soviet psychologists, and the ideas of J. Piaget, taken into account. A great deal of attention is paid to the interrelation of biological (in this instance, hereditary) and social factors in the ontogenesis of human psychology. It cannot be regarded merely as the reproduction and reiteration of the characteristics of the human species; it is also the means by which these characteristics change and develop. Society and humanity advance through the development of individuals. The danger of drawing too sharp a contrast between society and man is clearly indicated, since, in the words of Marx, just as man as a human being is the product of society itself, so society is the product of man. In relation to society, the individual is a 'sub-system', but is in itself, a complex, integral system of systems, all interconnected in hierarchical order. This is the basis for research on the problem of instruction and development, the relationship between the part and the whole in development, the driving forces behind it, etc.

Closely linked with the principle of psychological development is that of the development of the science of psychology, the science which investigates the developing psyche. This combination of a logical and historical approach to the investigation of the psyche is analysed in 'The links between the theory and history of psychology' (E.A. Budilova). In the
study of the history of the science, the methodological principle of development requires the application of the notion of development to the process of the reflection, by the human mind, of objective reality. This history of the science inevitably forms part of the theory. The various aspects of the subject have given rise to various scientific theories which have succeeded each other throughout the course of history; scientific thought, as it developed, stressed different aspects of the psyche in turn (its manifestation in the form of consciousness, for instance). This process was determined by social and historical conditions, by the general progress of scientific knowledge and by the special characteristics of the development of the science itself, as the emergence of new information, and the discovery of new facts presented new problems. The history of psychology reveals a consistent order in the discovery of the essential connexions of the subject of study and its relationship to the various aspects of objective reality. At the same time, its reflection in scientific theory is also determined by specific features of the cognitive process: this is the subjective side of the historical process of scientific cognition. The article outlines the fundamental lines of development in Russian and foreign psychology from this viewpoint, stressing the importance of the philosophical problems of psychology in the construction of a theory of psychology and the investigation of its history.

Rounding off the whole above-mentioned system of fundamental principles, which form the methodological framework of contemporary Soviet psychology, is the article on 'Personality approach as a principle of psychology' (K.K. Platonov). This methodological principle also embodies the dialectical materialist conception of determinism, in that in the explanation of any psychological phenomena, personality emerges as the sum of the internal conditions through which all external influences are refracted. According to this idea, no psychological phenomenon (process, condition, characteristic, etc. manifested in activity) and no resultant action can be correctly understood except in their dependence on the personality, i.e. as a manifestation of the specific personality which possesses the consciousness and is the subject performing the action. The article also describes the difference between a personality approach and an individual approach: the individual characteristics of the personality are not the same as the personality characteristics of the individual, i.e., the characteristics specific to him as a personality. An individual approach means knowing and taking into account the specific individual characteristics peculiar to a given person.
These points are illustrated by material from extensive Soviet research in the fields of general and applied psychology, which is overcoming the basic defects of functionalism, incompatible with the personality approach.

The following articles in this monograph demonstrate, by practical examples, how all these methodological principles are embodied in the various methods and sets of methods for psychological experimentation and psychological research as whole.

The article on 'Methodology and methods of psychological research' (I.I. Ivanova and V.G. Aseev) describes the basic features of the subject-matter of psychological research, which has its own specific determining factors and which, in turn, determines the particular character of psychological experiments and observation. The negligible part played in psychological processes by empirical level relationships deprives research workers of the initial foothold in empirical laws, which makes possible a gradual approach to the fundamental laws operating at a higher level. Consequently, empirical facts are, from the psychological point of view, open to any number of interpretations. Another characteristic of psychological processes is their integral character: they cannot be dissociated, except to a very limited extent, on the material or functional plane, or isolated in time or space. The article analyses a basic structure and pattern for psychological experimentation designed to overcome the above-mentioned difficulties of research in this field. It also sets forth certain main themes of experimental and non-experimental procedures, and gives a very detailed account of the virtues and defects of tests, observation and self-observation for purposes of diagnosis, prognosis and research.

The article by A.V. Brušlinskij deals with model-building, a particular but very topical form of experimentation. It is entitled 'Various methods of model-building in psychology' and commends model-building as a form of 'indirect' research (it can be used, for instance, for studying the creative work of a scientist on the analogy of a student's pattern of thinking) and, at the same time, criticizes the traditional idea of the model as a 'substitute' for the object to be examined, related to the original in an isomorphic, homomorphic, or other type of relationship. He shows that such relationships, which can be used extremely effectively for model-building in physics and mathematics, remain purely external and ineffective used in psychology.
Various other methods for research and, in particular, for experiments lying on the border-line between psychology and physiology are described in the article by G.H. Šingarov 'Physiological methods for the study of psychological activity'. These methods are evaluated in relation to the specific solution of a psycho-physiological problem: psychological and physiological factors constitute different manifestations of the same reflex, reflecting a regulatory activity of the brain, studied by psychology and physiology under different conditions. Thus for instance, conditioned reflexes, according to I.P. Pavlov, are at once a physiological and a psychological phenomenon. This accounts for the close connexion between electrophysiological, conditioned-reflex and other research methods, which are analysed in detail in this article.

It is a natural transition from this analysis of physiological and psychological research methods to an examination of physiological and psychological methods for the study of mental pathology, with which the article by V.N. Mjasinev 'Methodological significance of psychotherapy' deals. The pathology of psychological processes and of the personality as a whole may reveal with particular clarity certain of the components of the psychological world of man, enabling us not merely to study the pathological structure of various aspects of the psyche, but also to gain a clearer understanding of normal psychological processes and structures. From this standpoint, the article analyses problems of the normal and the pathological, the pathological aspect of the relationship between the brain and the mind, problems of pathological development and of the control of psychodynamics, etc.

The systematic study carried out in this monograph of all the fundamental methodological principles of Soviet psychology and their application in actual methods and systems of methods makes it essential to describe the general structure of the methodology of the science of psychology. This forms the subject of the important article by K.A. Abul'hanova-Slavskaja 'The methodological aspect of the problem of the subjective'. It is demonstrated that not all philosophical propositions can be applied as methodological propositions in psychology. The methodology of psychology is built up by defining, in each instance, the practical, methodological application of the various propositions of dialectical materialism in relation to the actual development of the science of psychology. The main function of methodology is to define the subject of study of a given science. Here a dialectical contradiction arises: either it is the subject of research that determines the
application of the methodological principles, or else it is
the methodological principles that determine the subject of
research. The contradiction is resolved by drawing a distinc-
tion between the 'object' and the 'subject' of research. The
object of research is the sphere of the actual objective
activity; the subject of research is the logical category,
the historically conditioned method of epistemic approach to
the object, i.e., the object as mediated through human
activity. Psychology has as its object not psychological phe-
nomena as such, but man — in other words, its object is the
same as that of many other sciences. In this connexion, a
detailed analysis is made of the problem of both the psy-
chological and the subjective and, in particular, of the prob-
lem of 'experience'. Experience is seen not as a 'shadow' or
aspect of the consciousness, but as a means of linking it up
with man's activity, taking shape through spiritual and prac-
tical as well as conscious activity. On this basis an attempt
is made to situate all the above-mentioned methodological
principles in their logical relationship.

This general statement of the problem of the subjective leads
straight on to the problem of man, which is the subject of the
concluding article: 'Man and the world' (S.L. Rubinštejn),
which was published posthumously, and constitutes a part of
the manuscript of a book bearing the same title, not yet pub-
lished. Working from the fundamental propositions of the
Marxist-Leninist doctrine of man, the author goes through the
entire system of philosophical and psychological categories
taking into account the fact that, as man emerges as a higher
form of existence, all the underlying levels emerge with new
qualities — primarily, the categories and conceptions of
existence, being, essence, causality, time, space, man, con-
sciousness, self-awareness, the ego, love, creation, freedom,
morality, etc. The article sums up the objective changes
brought by man — as the subject of cognition and action — into
the world, life and being. It is not only the particular
situation (personal or historical) that determines the life of
man: the involvement of man in a situation brings about an
objective change in the correlation of forces within that
situation, the correlation between good and evil. And it is
not only that man objectively transforms it, by his actions:
he also transforms it, objectively, by his attitude (humorous,
tragic, etc.).

Abstract prepared by Mr. A.B. Brušlinskij, Senior scientific
worker of the Institute of Philosophy of the USSR Academy of
Sciences, Candidate of Psychological Sciences
In 1969 the USSR Academy of Pedagogical Sciences convened a meeting of Soviet experts to discuss the methodological problems of the science of education. In the Soviet Union, this is regarded as one of the most important of the social sciences, its purpose being to determine the scientific basis for the instruction and upbringing of the young. The range and scope of this science are constantly expanding, and new branches and sections are emerging. Specialists are working on the general principles of education and studying differences in the educative process at different developmental stages; hence the growing importance of methodology as an approach to the methods of acquisition of knowledge and a means for the transformation of educational activities.

Academician E. Monjusz, Secretary of the Department of the Theory and History of Education, who opened the meeting, declared that the task of the meeting was to analyse and evaluate the current status of the question, to define the basic methodological problems needing to be treated in the near future, to analyse the experience gained in the application of modern methods to educational research and to suggest ways of improving them. A paper on the main trends in methodological research in education was presented by Professor F.F. Korolev, Member of the USSR Academy of Pedagogical Sciences.
At the present stage of development, Professor Korolev said, the problems are so complex that they cannot be solved by the old methods of scientific inquiry. It is essential to evolve new methods, to put research on a more logical basis, to develop reliable techniques which would make research more effective and research data more representative. Dialectical and historical materialism puts education on a scientific footing and provides a general method for the investigation of that complex social phenomenon, the instruction and upbringing of the young. The application of the categories of materialist dialectics in actual educational research is, however, a creative process, calling for a thorough knowledge of the facts and phenomena of education and an understanding of their specific characteristics.

Professor Korolev gave the meeting a detailed account of the work done on the subject of methodology by Soviet specialists (E. Monoszon, G. Gončarov, F. Korolev, M. Skatkin, M. Danilov, V. Gmurman, B. Esipov, L. Zankov and others). Of special importance is the monograph entitled Fundamentals of educational science (eds. F.F. Korolev and V. Gmurman), giving an account of the main aspects of the subject (upbringing, education, instruction, aims, means, methods, etc.), and an analysis of the links between education and other sciences, and devoting special attention to the fundamental problem of contemporary educational theory and psychology – the development and moulding of personality.

There are many questions of educational theory and methodology which experts have not yet solved, and which call for further research. Serious theoretical work also needs to be carried out on such problems as the subject-matter of educational science and the field it covers, biological and social factors in human development, the connexion between the development of character education and instruction; the social and educational process of moulding a communist personality; the group and the individual in the communist system of upbringing, methodological problems in modern teaching, the methodological aspect of educational research, the methods of scientific research in education, and methodological problems of research in the history of education. The speaker dealt in detail with future prospects in these fields of research. (The full text of this paper is published in No.4 of the journal Sovetskaja pedagogika, 1969.)

A paper presented by Professor A.G. Hripkova, Corresponding Member of the USSR Academy of Pedagogical Sciences, on 'Social
and natural factors in upbringing, education and development' was received with great interest and gave rise to a lively discussion. (The text of this paper is published in Sovetskaja pedagogika, 1969, No.3.)

Professor M. Danilov, Corresponding Member of the USSR Academy of Pedagogical Sciences, read a paper on the main problems of the methodology of educational research. He began by reviewing the literature on this subject, claiming that it was a mistake to assume, as so many of those engaged on educational research did, that problems could only be solved in one way. Insufficient attention was paid, in such research, both to the dialectic of the development of the pupils and to the process of moulding the character of the young. Long-term research extending beyond the field of everyday teaching needed to be further developed, for this was the only way to foresee future developments in education. The purpose of educational methodology is to explain the dialectic of the actual process of the upbringing, education and instruction of the young and to ensure its correct reflection in theory. Functional research could be combined with research into educational systems and structures, paying special attention to the theoretical bases of research, the elaboration of hypotheses, methods and standards in research and qualitative analysis, and the quantitative evaluation of results.

The paper presented by II. Skatkin, Corresponding Member of the USSR Academy of Pedagogical Sciences, dealt with research into teaching. He called for a detailed investigation of the content of education and criteria for estimating the effectiveness of instruction, and of the subject of the pupil and methods of instruction. No research should be confined merely to one small section of the system. Many problems (such, for instance, as the subject-matter and structure of polytechnical education, the relationship between a science and a syllabus subject, the typology of pupils and the differentiation of teaching) call for comprehensive, multi-level investigation. The speaker emphasized that his proposed structure for teaching research was not meant to be a rigid framework; research workers were completely free to approach the subject from different angles.

There were thirty speakers in the discussion. E. Kuznecova, lecturer (Moscow), E. Bondarevskaja, lecturer (Rostov-on-Don), and L. Novikova (Moscow) spoke about research on questions of children's collectives, methods and techniques of educational work and its organization in schools.
Professor V. Kolbanovskij's paper on the problems of sex education and research on this subject was received with great interest. These problems are becoming particularly important in view of the acceleration of the physical and sexual development of boys and girls and of the indirect demographic results of the war.

On the subject of the methodological problems of character education, the influence of the milieu and heredity, and the links between educational, psychological and sociological research, the following Corresponding Members of the USSR Academy of Pedagogical Sciences spoke: Professor I. Ogorodnikov, Professor O. Pint, Professor A. Petrovskij, Professor Š. Ganelin. B. Bitenas (Lithuania) spoke about the interesting results obtained by the educational psychology diagnosis laboratory.

In conclusion, Academician E. Monoszon, Secretary of the Department of the Theory and History of Education of the USSR Academy of Pedagogical Sciences, emphasized the need for making methods of practical research increasingly effective. He also spoke of the importance of settling problems of source study in education, of the scientific use of sources, and of the building models of the instructional and educational process. Soviet educational theory attaches the utmost importance to the study of teachers' experience. The collation and scientific analysis of data drawn from wide general experience should precede, accompany and conclude all other research, whatever form it takes.

The meeting adopted a resolution to establish, in the Institute of General Pedagogics attached to the USSR Academy of Pedagogical Sciences, a permanent seminar to deal with questions of methodology. This seminar has begun its work; it holds meetings, two or three times a year, in which experts from all over the country take part. The first such meeting was held in November 1969, the second in June 1970. The documents of the meeting on methodological problems, together with the texts of the most important papers have been published in Nos.4 and 6 of Sovetskaja pedagogika for 1969.
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<td>Title</td>
<td>Brisbane, Department of Education, 1969. 78 p.</td>
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<th>The terms of reference of the committee established in April 1967 by the Queensland Minister for Education and Cultural Activities were: (a) to review teacher education in relation to the needs and resources of Queensland and to make recommendations on the future development of teacher education; (b) in particular, to consider and report upon the quality and supply of teachers with regard to entrance requirements, facilities and courses for teacher education, the award to be made on the conclusion of a course of training, factors relating to the recruitment and supply of teachers and in-service education.</th>
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<td>An interim report presented in June 1968 recommended the introduction of three-year training for primary teachers in 1969 and a minimum of three years for secondary teachers as soon as possible. These recommendations were accepted by the Government. The broad aims of teacher education as laid down by the committee are the development of the student's personal maturity, the continuation of general education and the foundation of the student's professional education. Professional qualities to be developed include a...</td>
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knowledge of pupil development, needs and learning processes; knowledge of the foundations on which modern education is based; mastery of practical skills and techniques involved in teaching and formal and informal assessment; an ability to isolate objectives and organize the classroom climate and environment in order to achieve these; and readiness to explore and evaluate new techniques.

The committee recommended that selection for teacher education courses should take into account academic qualifications, personality factors and physical attributes. The minimum period of pre-service education should be three years, and in the case of teachers of academic secondary subjects, four years after the successful completion of secondary schooling.

Primary teachers are trained in teachers colleges, which will have completed the transition to three-year courses by 1971. Courses for primary teachers should include educational theory and practice in all years, related in a meaningful way to curriculum and methodology as well as courses to improve general scholarship and cultural background. Methods of teaching practice and evaluation of classroom practice should include use of modern technological aids and micro-teaching as well as standard classroom practice and observation. For university graduates wishing to become primary or secondary teachers a one-year college course should be established. Courses for teachers in schools for the physically or mentally handicapped should take the form of special units in second and third year of a primary training course or a ten-week full-time post-primary course. A part-time, two-year course should be made available for teachers of the deaf.

Courses for secondary teachers at present take the form of: a university degree plus a one-year end-on Diploma of Education; a concurrent four-year university course leading to a Bachelor of Education degree; one year at university followed by a year in a teachers' college; two, three or four-year college courses for teachers of non-academic subjects; and for trade teachers either a three-year
post-secondary school course or, in the case of qualified tradesmen, a one-year teacher training course. It is recommended that the practice of training secondary teachers in a variety of institutions be retained and that two-year courses be phased out by 1974.

In 1970 there was a total of 7,695 primary teachers in schools and 2,413 in teachers' colleges. The number of places required in teachers' colleges 1970-80 should rise to a peak of 3,360 in 1973 and thereafter decline slightly to 2,682 in 1977. This number will provide for a maximum class size in primary schools of 30 pupils and a pupil/teacher ratio of 22.3:1 in 1977. Calculations are based on an expected resignation rate of 12 per cent per annum from college courses, a teacher loss of 7.5 per cent per annum which includes resignation and increased selectivity in making appointments and re-appointments, and in-service education of 3 per cent of total staff per annum from 1975.

The number of places required for pre-service education of secondary teachers should rise from 1,616 in 1970 to 1,705 in 1972, declining to 1,082 in 1977. The recommended maximum class size is 30 in grades 8-10 and 25 in grades 11-12 providing an overall pupil/teacher ratio of 13.9:1 and a maximum of 30 teaching periods plus religious education and sport for teachers, 20 periods per week for subject masters and no teaching for principals. The need for general and language teachers should be met by 1974 and mathematics and science teachers by 1979. Calculations are based on recent student progression rates in schools and a 7.5 per cent per annum teacher loss which includes resignations and an allowance for qualitative improvements in staffing to take place.

With regard to the administration of teacher education, the provision within the Education Act 1964-1970 relating to the establishment of a Board of Advanced Education to determine the general pattern of development of all tertiary non-university institutions in Queensland and the allocation of finance to individual institutions including teachers' colleges, and a Board of Teacher Education to
discuss and advise on general professional matters and to keep a Register of Teachers should be implemented immediately. Administrative arrangements should be introduced for the setting up of teacher college councils.

The committee considers that in-service education is needed at all levels of the system and in a wide range of activities associated with teaching curriculum revision, school organization and administration to maintain progressive development. It is important that the teacher be personally involved with educational changes, as a member of a school staff which is innovative in spirit, and through activities of professional associations. Courses should include ad hoc programmes, designed to assist teachers with particular curriculum changes and a regular pattern of broad refresher courses on a full-time basis, lasting about three months, in which teaching objectives, practice and the theoretical framework within which they operate can be discussed. Facilities should also be made available for teachers to improve their qualifications. Teachers centres should be established with meeting rooms and curriculum material as a permanent centre for in-service activities.

With regard to the awards to be made at the conclusion of a course of training the committee recommends that colleges should follow the procedure of other non-university institutions regarding the granting of awards.

Abstract prepared by the Australian Council of Educational Research, Victoria.

A limited number of copies of this report are available from: Department of Education, Brisbane, Queensland (Australia).
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<td>Horne, B.C.; Wise, B.</td>
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<td>Title</td>
<td>Learning and teaching in the CAEs, 1969</td>
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This study was conducted by the Australian Council for Educational Research, and forms part of a programme of study and research sponsored by the Commonwealth Advisory Committee on Advanced Education (Mark Committee). This committee was established in 1965 to advise the Commonwealth Minister for Education and Science on matters connected with Commonwealth financial assistance for colleges of advanced education with a view to promoting the balanced development of tertiary education provided by institutions other than universities. 'Colleges of advanced education' is a generic term to describe a variety of institutions including institutes of technology, some technical colleges, and single purpose colleges of pharmacy, agriculture etc.; all of these provide vocationally oriented courses at post-secondary level.

The stated purposes of the project were: (a) to study the explicit and implicit objectives of the courses, the nature and extent of their content, how and by whom they are determined, how they are subdivided into years, and similar matters; conditions under which instruction and guidance of teaching takes place and the influence (if any) such
conditions have upon methods of instruction adopted and the learning situation; procedures used in evaluation of student performance; conditions under which learning and application by the student occurs, and (b) to indicate the strengths and weaknesses in the current situation and possible action that could result in improvement.

The two areas of business studies and engineering were selected because courses were available in them in most states, they included in most instances the largest groups of students and because engineering represented one of the traditional courses of the technical system and business studies one of the more recent rapidly-developing subject areas. The study covered full-time and part-time students in their first post-matriculation year of a diploma course, all business studies and engineering staff and those in other departments teaching in the engineering course area. More than 4,600 students in 23 institutions completed the initial questionnaire at the beginning of the 1969 academic year, 5-10 per cent were interviewed and 3,900 completed the follow-up questionnaire in third term. 800 staff completed questionnaires and 400 were interviewed. Colleges varied widely in respect of most areas studied and the tables show detailed answers for each college and each area of study. The following are the generalizations and recommendations arrived at by the authors.

With regard to colleges and courses it was found that where colleges had not clearly defined their role in tertiary education there was a general lack of clearly-defined objectives at departmental level. Where subject objectives were formulated they tended to summarize course content with no attempt to relate to the broader objectives of course and college. It was recommended that colleges reconsider and develop a statement of objectives with the assistance of teaching staff and that this be used as a basis for the design or modification of courses. Design of courses in the past—in some colleges the function of Education Department committees—now rests with teaching staff. Where
advisory committees at teaching department level, with members drawn from industry and commerce, are in existence, they are seen to make a positive contribution and their establishment in all colleges is recommended.

A critical examination of course class hours should be made with a view to reducing them from their present level of 24-32 hours per week in engineering to a maximum of 24, and in business studies from 16-28 hours a week to 20, with more use than at present made of assignments and library work. A feature of the present engineering course is that the student must decide on his specialization on college entry. Since student interviews showed that many were not strongly motivated towards the branch they had chosen it is recommended that a common engineering first-year course be introduced to provide students with the opportunity for a better-informed choice.

Concerning students and their welfare it was found that prior to this study there was no information obtainable on college students and their characteristics. This study collected information for each student on age, nationality, extra-curricular interests, residential status, parents' education, occupational background, tertiary preference and financial resources. Two findings from this section of the study showed that while there was an almost complete lack of sporting and recreational facilities at colleges, the main interest of students was sport; and that the chance of a college student obtaining a Commonwealth scholarship was proportionately less than half that of a university student although college students have a generally lower socio-economic background. An educational research unit should be established in each college, one of its functions being the analysis of the characteristics of the student body and the dissemination of this analysis to the staff of the college.

Although teaching has been stated to be the main function of colleges, except in Victoria and Western Australia, at least half of the full-time staff had not undertaken a course of teacher
training. The majority of staff felt that teacher training was needed and that it should take place in colleges; this view is supported by the authors. Three quarters of staff indicated that they had worked in industry or commerce and almost all staff rated industrial experience as at least very helpful. A scheme of study and industrial leave should be implemented to facilitate the gaining of further academic and industrial experience, while the role of part-time staff in providing direct contact with industry and commerce should be noted. Staff teaching loads varied from 14-20 hours a week while the majority of staff considered that 12 hours a week is desirable. The conditions of work should not be inferior to those of university staff. Heavy teaching loads may explain the small use made of audio-visual aids and the dependence on dictation and blackboard notes. Assistance should be provided in preparing duplicated and audio-visual material and staff should be trained in the use of aids.

While in many colleges the emphasis is on a single end-of-year examination, there is a trend towards continuous assessment, which is preferred by both staff and students. Problems such as overlarge mark load and a tendency for students to concentrate on assignments can be avoided by using a variety of forms of assessment. Opportunity should be made for staff in small colleges to consult with other colleges on assessment. In 1969 colleges were at various stages of development of new campuses or redevelopment of existing buildings. Problems encountered with the older urban buildings or temporary accommodation were noise, poor ventilation and poor acoustics. Many new buildings were designed to meet existing teaching conditions without sufficient regard for maximum flexibility of industrial space. The involvement of teaching staff in plans for modification of old buildings or design of new ones is important.

Many libraries suffered from insufficient space, shortage of library staff, too few multiple copies of books, inadequate hours and little training of students in the use of the library. While
facilities were being fully utilized, the overall use of library facilities by the student body as a whole, especially part-time students, was relatively low. Recommendations include the provision of additional special grants to bring libraries up to the minimum standards laid down by the Wark Committee, use of additional classrooms, provision of a variety of seating, and training of students in library usage.

Consideration of part-time students showed that in many cases courses were not geared to their special needs. Students normally worked a 35–39 hour week in addition to classes which could involve an extra 14 hours per week. The provision of sandwich courses, more day-release classes, early evening classes or trimester or semester systems should be considered in this regard. Other problems included lack of identification with the college, difficulty of obtaining library books and a high student wastage. Additional study is required to find ways of improving courses, facilities and teaching techniques for part-time students.

Abstract prepared by the Australian Council for Educational Research, Victoria.

Volumes I and II contain the report and appendices and are obtainable from the Australian Council for Educational Research for A$5 and 50c postage. Volume III contains additional student data for the state of Victoria, and is not for sale. Applications for this volume should be made to the Director, Australian Council for Educational Research.
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This study, which was first published in Hebrew under the auspices of the Adult Education Centre of the Hebrew University of Jerusalem, was subsequently translated and published in English as Israel's contribution to the International Education Year by the Department for Hebrew Language and Adult Education of the Ministry of Education and Culture.

The fight against illiteracy is one of the major problems of our time. Its full scope was demonstrated by the World Congress of Ministers of Education on the Elimination of Illiteracy, organized by Unesco in Teheran in 1965. The writer recalls that the gap between developing and developed countries is particularly wide in the field of education. About two-fifths of the world's adult population, nearly 800 million people, are unable to read or write. The illiteracy rate may be anything up to 50-80 per cent, sometimes more, in developing countries, while it is almost insignificant in developed countries. Moreover, for a literacy programme to be effective, there must be continuity in the progression from illiteracy to literacy. The pupil must, in fact, reach a standard from which relapse into illiteracy is no longer possible. Many literacy campaigns have failed because they were confined to teaching the rudiments of reading and writing without consolidating this knowledge through functional and continuous instruction.
To avoid such failure, three methods may be considered which all combine the acquisition of general knowledge with the acquisition of the basic techniques of reading and writing: (a) the adult is no longer considered illiterate when he can apply in everyday life the techniques and knowledge he has acquired; (b) the aim is to attain functional literacy, i.e. the knowledge acquired must not be restricted to everyday life but must contribute to the individual's economic and social improvement; (c) adult education must provide the illiterate with the instruction he missed during childhood, i.e. at least four years of primary education.

The second of these methods, functional literacy teaching, has given good results in many developing countries and in the United States, where it is used with illiterate candidates for naturalization. It covers all community promotion activities and creates new incentives to community development. It underlies Unesco's 'selective/intensive approach', the campaign against illiteracy being linked with economic and community development programmes and the learning of reading and writing being associated with technical and vocational education.

In Israel, there has been considerable activity in this field: a population coming from developing countries has to be educated in order to be integrated into a State that is well organized from the agricultural, industrial and health points of view. The Ministry of Agriculture has developed efficient pilot methods for teaching the rudiments of agriculture to an educationally disadvantaged population. University graduate specialists and experienced farmers, who are now employed in preference to the volunteers of earlier stages, deal with the newcomers individually, helping them to solve simple problems. This is followed by guided vocational group activities and the solution of more complex problems. For vocational promotion, the Ministry of Labour has adopted methods involving the progressive acquisition of specific skills which are immediately put into practice. The Ministry of Health has adopted a similar approach. In short, in community development and vocational training programmes designed to meet the individual's socio-economic needs, primary education must be combined with a specific vocational training. The two elements are complementary and parallel, the vocational training requirements determining to a large extent the primary education syllabus. Consequently, research must be conducted locally to identify the type of primary education corresponding to the different kinds of vocational training and its effect on the pupil's
socio-economic advancement. Research of this kind has been undertaken in various countries, sponsored by Unesco. In Morocco, for example, a study is being made of the effect of functional literacy teaching on the economic promotion of workers in the phosphate mines. In Tunisia, the University of Harvard is directing a survey of occupational success and economic status of adults who have received primary education. In Brazil, a computer is being used to develop literacy teaching materials for use in the field of general knowledge or vocational training.

Primary schools for adults, set up within the framework of the third method of literacy teaching, have long existed in the USSR and have also developed in other countries of Eastern Europe as well as in China. In Israel, a considerable sum of experience has already been acquired in this field and noteworthy results have been obtained, particularly in primary schools for adults situated in the major towns, especially Mitchell's Workers' School in Jerusalem (attached to the General Federation of Labour). This latter offers a four-year primary course based on the continuity of study; the pupil knows that reading and writing are only the beginning of primary, secondary, or even higher studies. The school applies special methods as regards studies, promotion, curriculum structure, and extra-curricular activities. The Israeli army primary training school, attendance at which is compulsory for any soldier who has not completed his primary education, is also described in detail. The course is concentrated and extensive and may lead to further vocational or general training. The police and civil service also have primary training classes.

An analysis of illiterate adult pupils' motivations and expectations reveals that the desire for vocational advancement, which is met by vocational training, is not the only motivation. A two-year survey conducted among pupils of the Workers' School in Jerusalem showed that 30 per cent gave as their motivation the desire for vocational advancement, 25 per cent social promotion, 15 per cent thirst for knowledge, 15 per cent the wish to help their children in their studies, 10 per cent a leisure-time occupation, 5 per cent the desire to know the people and the country. The sample was composed for the most part of adults between the ages of 25 and 45 years, 30 per cent of them women.

Only with a full knowledge of local conditions is it possible to draw up syllabuses which are sufficiently comprehensive to
prevent a return to illiteracy. By way of example, however, the problems posed by the preparation of a geography syllabus are expounded.

The study also deals with the important problem of training teachers for illiterate adults. In many cases the teachers have volunteered during the course of literacy campaigns. Volunteering plays a very important part in creating public awareness, establishing a first basis for action and bringing together different sectors of the population. It is not enough, however, as the enthusiasm aroused is often short-lived. In Israel, there have been waves of volunteers, first to teach Hebrew to new immigrants, later for community development, and lastly to join in the fight against illiteracy. Each of these waves brought its contribution and was subsequently used in a permanent framework by the institutions concerned. To meet the shortcomings of the volunteer system, some countries, such as Iran, have set up a semi-volunteer system within the army. This system also exists in Israel, with the characteristic that the unit consists entirely of women soldiers. These teacher-soldiers live in the villages, where they teach the adults at times and places convenient to the latter, individually or in groups. Naturally, the army offers a partial solution. Apart from the volunteers and semi-volunteers, there is also a need for specially trained teachers. This training is given in Israel by means of courses organized by the Department for Hebrew Language and Adult Education of the Ministry of Education and Culture, by the teacher-training schools and by the army through the teacher-soldiers. A new impetus is to be given to the 'adult teachers' college', set up by Martin Buber in Jerusalem. An example of international co-operation by women is offered by the Mount Carmel International Training Centre in Haifa: this centre trains teachers, most of whom come from developing countries, who wish to specialize in problems of community development and adult education.

In conclusion, it is emphasized that, whereas in the past, practice often preceded planning and research because of the urgency of the needs, the stress is now on the development of research in the field of adult education. It should bear in particular on the learning capacity of adults deprived of normal schooling, on methods of developing illiterates' ability to form cognitive concepts, on curriculum development and on ways of changing illiterate adults' attitudes.
It is indeed by research that many errors, inevitable when empirical methods are used, can be avoided or corrected and that easier and more effective means can be found for solving the serious problems of illiteracy. The State of Israel can play an important part in this research effort since, on the one hand, it is faced with the problem of illiteracy and, on the other, it has an educated population able to deal with the problem and seek solutions to it. Israel is therefore a convenient laboratory, as here can be found collected and applied the various methods of promotion of adult illiterates. The result of this research can also have valid implications for the whole world.
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A report prepared by a research worker in reply to an IBE questionnaire on this subject. The author presents a comprehensive survey of the evolution of educational policies in Israel and their implementation, but omits areas of education not covered by the questionnaire: post-secondary; extra-curricular activities not directly related to schools; special education; and education within the Kibbutz system.

From the beginning, the State of Israel has been committed to the goal of absorbing all immigrants in order that a unified nation may be created. The process of immigration has produced a heterogeneous population, originating from over 70 countries, with varied patterns of behaviour, family structure and cultural-educational orientation. The rôle of education has been to 'bridge the gap', to permit the integration of people who are essentially foreign-born. Hence the goal of educational policy: to raise the educational level of the more backward population, who form a large 'culturally deprived' group, while maintaining an already high standard of education for other segments of the population.

The system of education, in responding to this situation, has shown itself to be dynamic and flexible.
with an awareness of rising problems, there is also a readiness to change and an openness to research and criticism.

**Policies.** The Compulsory Education Law of 1949 made schooling compulsory from 5 to 13 years of age inclusively (i.e. one year of kindergarten plus eight years of primary school). Responsibility was shared between the State and local authorities. The law brought kindergartens into the public sector.

The State Education Law of 1953 consolidated the role of the Ministry in establishing curricula and supervising primary and post-primary schools. The need to make secondary education more effective led next to the adoption of a school reform which began in the 1969/70 school year. The structure is changed to a 6-6 system, the post-primary period being composed of a 3-year intermediate section (non-selective, with an emphasis on observation of pupils and guidance) and a 3-year upper section (differentiated by streams but open to all intermediate graduates).

The reform favours a comprehensive type of school. It further decentralizes authority and aims at improving access and achievement for the different segments of the population. As a preventive measure intended to benefit children 'in need of nurture', the reform will involve revision of teacher training, curricula and the zoning of schools.

The duration of compulsory education is to be extended to age 14-15 in 1972 and to 15-16 in 1975.

The *culturally deprived*. In spite of enrichment programmes for the underprivileged children, experience has shown that the academic ability gap between children of Western cultural tradition and those of Afro-Asian cultural tradition is magnified in the school setting. Three basic factors have been identified as contributory causes: (i) background of poverty — not only the material aspects, but also the social and emotional results of growing up in poverty, affect the child's motivation towards achievement in school; (ii) lack of experience — the home environment gives little of the verbal and play interaction which develops cognitive and psycho-motor abilities; (iii) poverty of language — to an impoverished level of verbal interaction is added the fact that the home language is not Hebrew.

Population groups showing this syndrome are designated in Hebrew 'those in need of nurture', a term with no negative
connotations. The term is applied by the Ministry to schools which qualify for a series of programmes designed to raise the achievement level of children from the deprived groups.

Over the years, educational policies have changed in the light of experience and of research work. At the outset, the principle of equality of education was accepted and was translated into uniformity in the programmes and educational processes in the school. It was found that these measures did not lead to actual equality. Studies made in the 1950s revealed qualitative differences in the levels of achievement among different segments of the population. Further studies of these cultural groups led to the conclusion that the educational system, set up to meet the needs of a Western culture, was not geared to the needs and abilities of groups of different origin. Hence educational policy was directed to equality of opportunity which meant differentiation of the educational process. This was expressed in the idea of 'nurture through education', and the programmes directed to this end were in 1963 institutionalized by the creation of the Centre for Schools in Need of Nurture.

A school is classified as 'in need of nurture' (a TT school, from the initials of the Hebrew term) on the basis of three criteria: scholastic achievement as measured by a national achievement test; the composition of the school population; the composition of the teaching staff. About one-third of all primary schools are classified as TT. An additional group (about one-sixth) are recognized as borderline cases and are entitled to part of the services of the Centre.

The Centre sponsors projects and research for the primary and pre-primary schools; a separate unit deals with compensatory education in post-primary schools. Measures taken over the past decades can be summed up by level of school and type of programme, bearing in mind that interaction and co-ordination are assured both by the Centre and the schools concerned.

Primary education. Compensatory programmes for early childhood have affected the age groups 3-4 (nursery schools) and 5, (kindergarten). The Ministry supports nursery schools to such effect that 60 per cent of the children in need of nurture were attending in 1969/70. The kindergarten is compulsory. Free meals are available in the majority of cases.

Experimental studies at this level have examined the changes resulting from the use of socio-dramatic play, different
methods of teaching reading, and cognitive development through art work. One study, still in progress, attempts to see whether the integration of children at an early stage (age 3) will further the intellectual and social development of the deprived group. Findings of these studies have been applied in the training of teachers and in teaching methods and materials. All projects, whether directed to research or action, enlist the co-operation of parents. Enrichment programmes for the benefit of mothers and the participation of mothers as instructors in the home represent two of the approaches used.

In primary education proper, attempts have been made to improve teaching methods in three areas: the teaching of reading and arithmetic; textbooks and teaching equipment; the use of educational consultants. Studies in the tool subjects have sought out causes of failure among disadvantaged pupils and have led to the publication of special readers and materials for teachers. A study on mathematical readiness, still under way, has already shown the importance of methodology and the quality of the teacher, and has demonstrated that culturally deprived children benefit greatly from new teaching methods in arithmetic. To help teachers in TT schools, a group of educational consultants has been created. Now numbering 45, each works with 35-45 teachers, essentially to serve as a link between research and practice in the school.

Teaching for the individual student has been the objective of a number of programmes. Remedial programmes for underachievers take the form of group work for small numbers of children who meet after school hours, and of special classes to which children are transferred for a given period, usually a year.

In the upper grades, differential instruction has been provided by placing children from different classes — for part of the curriculum — in achievement groups. Studies on the effects of grouping are now in progress, but experience is positive enough to lead the authorities to make this measure an integral part of the intermediate school system. Teachers for the various programmes of individualization are given supplementary training.

Yet another set of projects has been developed to provide children with experience in unfamiliar cultural activities, for example in music, drama and the plastic arts. One of the enrichment programmes is a mobile exhibit of educational games.
and books, for the purpose of making parents aware of the need for enriching the home environment.

A related programme prolongs the time a child spends in the school framework. This may take the form of a long school-day or of a prolonged school year. In either case, the additional time is divided between school work and extra-curricular activities. Studies reveal positive results of the programme and highly favourable reactions by teachers.

The final measure at primary school level resulted from a research study to discover whether the effects of cultural deprivation could be reversed as late as adolescence. The findings were positive, and led to a project for nurturing gifted children and preparing them to continue their studies at higher levels.

Post-primary education. While goals remain the same as in primary education, the differences in school organization and in pupils' development require a different set of measures at this level. To open up the selective post-primary school system and prevent high drop-out rates, two measures are applied: tutoring children in need of nurture who enter general schools; and providing several kinds of vocational educational programmes. The 1969 reform setting up the intermediate section and the comprehensive school carries these steps further.

At this level, the individual student rather than the school is defined as 'in need of nurture'. The two criteria for so classifying children are performance in the nation-wide achievement test and socio-economic background. Projects in academic schools comprise tutoring (where a tutor works with a small group of 2-5 pupils for some hours a week) and group coaching (where auxiliary lessons are provided in certain key subjects). Experimentation continues, since the methods and results of these projects are constantly evaluated.

Some schools are also classified as TT. They qualify for interdisciplinary nurturing projects, by which consultants assist teachers and students in an all-round attempt to advance the school as an institution. Boarding schools for the gifted were an early form of compensatory provision at post-primary level. There are now 12 such schools and the record of student achievement and continuation to higher education is good. Yet another type of measure is the summer project: courses or camps with an emphasis on providing academic, social and cultural experience.
The extension and expansion of technical and vocational education has been significant during the 60's, the enrolments in vocational schools doubling in the last five years. These schools provide courses of various levels and orientation, some of which are designed to meet the needs of children who would otherwise drop out from the more theoretically orientated trends. As in other parts of the educational system, research studies have constantly provided policy makers with the evidence for changing and developing vocational schooling.

Teacher training. The reform requires certain changes in teacher qualification, which will be met by in-service courses. The programme for schools and children in need of nurture has involved teachers at every point, but two projects specifically directed at training teachers for work with the disadvantaged are currently being conducted: one to give in-service training to tutors, the other to prepare primary school teachers better to understand the development of abstract thinking. Research work in this area has concentrated on teacher-student relationships.

The report contains in annex statistics on the school system to illustrate the problems dealt with. Available data in the demographic social and cultural fields are summed up to identify specific aspects of the problem of disadvantage. In conclusion an annotated bibliography of research studies, most of which were reported in Hebrew, provides an insight into the range and methodology of this work.

Abstract prepared by the Secretariat of the International Bureau of Education, Geneva

The complete report is available in micro-fiche form from the IBE (ref.SIRE/034)
Main problems. Widespread poverty has given rise to many undernourished, poorly-sheltered and ill-clad students whose prospect of success at school is from the start hampered by their economic condition. They experience difficulty in adjusting to the generally middle-class oriented school; home conditions do not encourage study and school attendance is hampered by malnutrition and sickness. These problems are emphasized in disaster-exposed or isolated areas. Other factors which contribute to school failure include: the bahala na attitude (leaving everything to God); mañana habit (procrastination); long distances between home and school; low personal motivation; prejudice against girls' education; poor sanitary conditions in school; and inadequate financing of the school system, resulting in poor premises, a high teacher-pupil ration, insufficient textbooks, lack of staff and qualified guidance workers.

Government policy. Since 1966, the educational programme has been geared to socio-economic development and manpower keyed to the needs of economy, in order to reduce the excessive output of highly skilled personnel and to increase the 'middle' level manpower.
Based on the Economic Emancipation Law of 1969, curriculum reform has given emphasis to the training of scientific and technological personnel, to the provision of managerial and vocational skills, and to inculcating a sense of the dignity of labour. The policy of the Bureau of Public Schools has been to open a school in every barrio, and in sparsely-populated areas to provide multigrade classes and barrio high schools in order to avoid excessive travelling. Other measures include: launching a school health education project and a nutrition programme; implementing the Special Education Fund Act which provides for better school accommodation, more generous textbook distribution, and adequately staffed and equipped schools.

**Measures taken.** Preventive: Pupils in grades 1-6 receive daily instruction on 'character education' in which qualities such as self-reliance, promptness, punctuality, responsibility, perseverance and industry are stressed; emphasis is given to health education in the last four years of school. Remedial: Provision of study rooms attached to libraries and supervised study periods in school, usually considered as part of the teachers' service load; supervised recess activities aimed at developing desirable habits and group-living attitudes; schools visits and learning activities for parents; improved health through the School Feeding Project and the Applied Nutrition Scheme; improved guidance and medical services; better teacher-pupil and home-school relationships; home visits by teachers and guidance counsellors; extra-curricular activities; regular medical check-up and immunization of pupils; individualization of the study programme.

**Means of implementing these measures.** Character education and the 'new' social studies stressing the development of desirable values (supplanting of the bahala na attitude and mañana habit) are part of the in-service teacher training programmes provided in 21 regional centres. In addition guides on these subjects are circulated to teachers in the field. The school health personnel has been increased and when necessary they are assisted by teachers and school administrators for whom a handbook on the health programme has been prepared.
General Office supervisors check study rooms, supervise study periods and the distribution of textbooks. The gap between home and school has been narrowed and adjustment to school culture promoted through visits of parents to schools. Wide publicity has been given to the School Feeding Project and Applied Nutrition Scheme in order to make teachers in the field appreciate their significance; the provision of continuous training courses on nutrition at the national, regional or local level; nutrition as a subject has been integrated into the curriculum; classes are organized in mothercraft skills. The Bureau's five-year plan (1969-74), based on projections of enrolment and the yearly cost, includes the acquisition of sufficient classrooms, teachers, textbooks, instructional materials.

Problems requiring further study. These include providing answers to such questions as: Does selective promotion foster or hamper success at school? Will mass promotion or promotion based on social indices or chronological age or continuous progression improve prospect of success at school? What is the relevance of the curriculum to present-day living? What part needs revision?


The complete report is available in micro-fiche form from the IBE (ref. SIRE/035).
Main problems. The remoteness of many children's prospects of success at school is due to two overlapping sets of obstacles: those preventing regular school attendance and those preventing efficient learning. The country's essentially agricultural economy and the low per capita income oblige mothers and older children to engage in work which Thai custom normally attributes to the father. The resulting irregular and unpunctual attendance at school is aggravated by travel difficulties — distance in rural areas, overcrowded streets and buses in the towns — and leads to under-achievement, grade repetition and eventually drop-out. Research has shown a geographical correlation between low economic situation and low school achievement.

Learning ability is impaired by the effect upon physical and mental health of poor sanitation, lack of health education, inadequate health services, and malnutrition. A further difficulty lies in the fact that many children's native dialect is different from the language of instruction in school. This problem is particularly acute in three Cambodian-speaking provinces in the north-east and four Malay-speaking provinces in the south. The custom of early marriage in the latter area constitutes yet another obstacle to schooling. Finally, much wastage is caused by the lack of motivation to go on to upper elementary education.
which is not provided in most rural schools and admission to which, where it is available, is by competitive examination.

**Government policy.** The remedial and compensatory policy adopted consists of high-priority rural development projects, additional educational effort in provinces with linguistic and cultural problems, curriculum changes, establishment of boarding schools for poor children from remote districts, and extra provision for teachers’ welfare in such districts. This is supported by a preventive policy of general rural development and the democratization of educational opportunity directed towards reducing the social gap.

**Measures taken.** During the first Economic and Social Development Plan (1960-66), per capita income rose by about 4 per cent per year and the annual growth rate was 7 per cent. During the second (1967-71), gross domestic product is expected to increase by 45 per cent to reach 130.8 million baht and the annual growth rate is projected at 8.5 per cent. A third plan will run from 1972 to 1976. At the same time, Government-approved family planning is expected to reduce pressure on the education system. Needy children are being provided with textbooks and school supplies.

Financial and material incentives are offered to farmers in order to increase productivity. The isolation of rural areas is being reduced through the construction of roads and schools, and there is a small degree of urban improvement through slum clearance. Centres have been set up to deal with the language problem in the two areas affected by it. Greater efforts are being made to provide health services, health education and a school meals service.

**Means of implementing these measures.** The above measures are implemented through the Rural Development Project, Rural Welfare Services and Rural Education Project, each of which comprises a number of specific, problem-centred programmes.

**Problems requiring further study.** The diversity of types of educational administration calls for research directed towards identifying the most effective system. A survey of urban school attendance should be conducted with a view to establishing school zones which would solve pupils' travel difficulties.

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Abstract prepared by the Secretariat of the International Bureau of Education, Geneva

The complete report is available in micro-fiche form from the IBE (ref.SIRE/036)
Main problems. Under the Constitution the young have equal rights to education without national, religious or other discrimination, either in principle or in practice. Schooling is free from kindergarten to the end of secondary school; tuition fees are paid for higher education only by students enjoying better than average circumstances or those showing school progress below average. The fact remains however that the social background of students still influences, to a great extent, their school career. Up to 1945, the school system was designed essentially for the wealthy, it rarely permitted poor children to go to school after the age of 10, the few who did met unsurmountable obstacles at the age of 12 or 14. Furthermore, most of the population lived in rural areas. Available statistics show that school progress depended almost entirely on the social background of the pupil; moreover, the majority of the underprivileged believed that schooling was not only impossible for their children but even superfluous. From 1945 onwards, the political and socio-economic structure of the country underwent a gradual change: the financial gap between the two extremes of society was reduced, the school system was reorganized, the system of settling the population was revised and attempts were made to re-educate public opinion. Boarding schools were established for the gifted children of industrial and agricultural workers,
and in the selection process for the people's colleges the
underprivileged children were given preferential treatment.
Later, equal opportunities, at every level of education, were
provided for all; the evening and correspondence courses for
adults playing a considerable part in the process.

Nevertheless, many students, again mostly from the families of
manual workers, are still in an unfavourable situation— they
lack the means to pay for the required accessories and, fur-
thermore, any form of extended education would involve an eco-
nomic loss to the family. Other contributing factors are: 10
per cent of the population still live in scattered farmsteads;
there is no system of selection; and, in spite of uniformity
of the school system, there remain essential differences in
the level of schooling available. For those studying at the
higher levels there are such additional difficulties as a
parental prejudice against, or indifference to, higher educa-
tion and the distances between residence and educational
institution.

Government policy. A quantitative development of general
secondary and higher education is not the answer to the prob-
lem as there is still a shortage of manual workers. Most
secondary school pupils are undergoing a training which
usually leads to social expectations higher than the present
structure of employment can satisfy. In fact what is needed
are slight changes in the various types of secondary education
institutions that would better adapt them to the requirements
of the national economy. The overall qualitative improvement
of the educational system which has taken place in recent
years should mean that only the most gifted should have access
to higher education; this in itself could result in a rapid
disappearance of the importance of social background.

Measures taken. After 1950, legislative measures were intro-
duced enabling children of manual workers to continue their
studies in secondary schools and institutions of higher educa-
tion. Government provided financial assistance to underprivi-
leged children, assumed responsibility for the children of
unfit parents, granted scholarships to gifted children, based
on their school progress and financial situation, improved
travelling facilities, and maintained free students' homes.
To help compensate for the low cultural level of the family
arrangements were made for students to participate in the cul-
tural life of a neighbouring boarding school or college. In
addition, day homes were organized for general and secondary
school students to provide coaching outside regular study
hours. Other measures included: payment of higher salaries to teachers in out-lying schools; a gradual closing of old, poorly-equipped, small schools and in their place providing well-equipped central district schools; free preparatory courses, mostly for students in the eighth year of general schools or the third and fourth year of secondary schools and during summer vacations; improving the vocational guidance facilities. To overcome the prejudice and indifference of parents, extensive propaganda activities were carried out, unfortunately with only a partial success.

Means of implementing these measures. The existing legislation provides adequate means to overcome these influences though it may be necessary to introduce certain amendments. The responsibility for enforcing the law lies with the local administrative and educational authorities and, in the last resort, the education institutions.

Problems requiring further study. Trends in manpower requirements should be studied followed by measures to ensure that the education system will meet these requirements. There should also be extensive and systematic research work into the problem of selection and the results of such research should be applied as widely as possible.

Abstract prepared by the Secretariat of the International Bureau of Education, Geneva

The complete report is available in micro-fiche form from the IBE (ref.SIRE/033)
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<tr>
<td>Author</td>
<td>Institut pédagogique national.</td>
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<tr>
<td>Title</td>
<td><em>Le milieu social des élèves et leurs chances de succès à l'école</em></td>
<td></td>
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<tr>
<td>Bibliographical data</td>
<td>Paris, October 1970. 93 p. (Report prepared in reply to a BIE questionnaire)</td>
<td></td>
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<tr>
<td>Translation</td>
<td>The social background of students and their chance of success at school</td>
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<tr>
<td>Keywords</td>
<td>France</td>
<td>culturally deprived children</td>
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Thanks to extensive studies and research carried out by various services and public bodies, the Ministry of Education now has sufficient statistical information to measure both the efficiency of the education system and the extent to which the democratization of education, provided for as one of the aims of the reform of education, has proceeded. These studies have revealed (a) particularly serious educational wastage at both the elementary and secondary levels; (b) the maladjustment of the French education system, which fails to fulfil its cultural, social and vocational training functions.

Research has been carried out to evaluate the extent of the influence of the socio-economic background, as being one of the factors of maladjustment. The problem is very complex owing to the interaction of various elements involved. Nevertheless, some of this research has revealed the main elements which give rise to many of the difficulties encountered at school, and already a certain number of reforms have been implemented.

Effort at adapting the education system is to concentrate on the following points: importance of providing a general education until the end of compulsory schooling, so that everybody shall acquire certain basic thought processes and knowledge; elimination of the inequalities observed between different regions,
between pupils of different backgrounds or between the sexes; the need to reduce the number of pupils who, immediately they reach the legal age for leaving school, do so to start their active life without adequate prior vocational training; adaptation of all forms of training, at all levels, to the employment offered by the national economy; importance of keeping parents and families informed on careers and opportunities; adaptation of the school counselling and vocational guidance system.

Government policy

An account is given of the various stages of the educational reforms resulting from the 1959 decree. The main aim of the reform was to provide equality of access to secondary education for all children. Some reorganization has taken place. The reform, in 1959, of lower secondary education, considered as an observation stage, was followed in 1964 by the establishment of the general secondary schools (collèges d'enseignement général) in which various types of classes co-exist in the same building. In 1965, a "school map" was drawn up, indicating the siting of schools so as to provide schooling under the best conditions for all pupils; this entailed the launching of a school building programme. Next came the reform of upper secondary education and the creation of the university institutes of technology. In 1968, the law on the orientation of higher education was passed. From then on the Ministry of Education followed a policy of educational renewal, which included certain measures that could be implemented immediately, and also a programme of long-term and short-term research and experiments. A detailed list is given of the measures already taken, and current innovations.

Measures taken

Measures have been taken in an attempt to eliminate the causes of maladjustment and failure, which occur in connexion with the following conditions.

Economic conditions and social characteristics. In view of the effects of the country's economic and social standards on education, the VIth Plan (1970-75) stresses the need for equality of opportunity, enabling each person to realize his or her potential to the full regardless of social background, sex or place of birth. The plan lays down in which areas priority action is to be taken as regards education: development of basic and applied research, especially in rural areas;
educational renewal to be continued at all levels of education and in adult education etc.

Family's occupational background. The parents' occupation determines the organization or lack of organization of family life: itinerant employment, night work, jobs entailing long or repeated absences of either parent, long or frequent stays abroad for the family, mother going out to work etc. For those pupils who are unable to attend a school regularly, the Ministry of Education has created an external teaching centre which not only organizes correspondence courses, but also employs modern means of communication such as radio, television, magnetic tapes etc.

The occupational background has a definite influence on the child's educational and vocational future. Many families of modest means tend to disapprove of lengthy studies, preferring more rapid training from which an almost immediate return may be expected. However, information supplied at lower secondary level helps to diminish parents' hostility.

Family resources and way of life. Economic factors play a vital part in a pupil's choice of courses and occupation. Elementary education was free by the end of the 19th century and subsequently free education was extended to the first two years of secondary education (Classes 6 and 5). More and more scholarships are being awarded. This system has been extended by offering aid to families so that, after their general primary education, the maximum number of pupils can complete their studies with some form of vocational training, or continue their studies as fas as the baccalaureate. The children of foreign workers, who are not entitled to Ministry of Education scholarships, have also been considered. They are awarded scholarships by the Social Action Fund (Fonds d'action sociale) from funds administered by the Social Aid to Emigrants Service (Service social d'aides aux émigrants). The Ministry of Education has taken certain action to compensate for shortcomings in the family background, as regards hygiene, food, sleep, and housing.

Place of residence. To counteract the uneven distribution of schools, a study was made in 1966 by the Ministry of Education with a view to improving the school map, so that new buildings would more adequately fit in with the social and economic needs of each region. The sums needed for building new schools are included in each year's budget. A programming division was set up recently at the Ministry, for purposes inter alia.
of: (1) planning secondary school buildings over a period of several years; (2) simplifying administrative procedures.

Cultural characteristics. In order to meet linguistic weaknesses which, in the case of children from culturally deprived backgrounds, are one of the main causes of failure at school, the Ministry appointed a commission for reforming the French language teaching in elementary schools. This commission drew up a syllabus which is being tried out in a number of schools.

Great importance is attached to teacher-parent relations. In 1968, school councils were started in secondary schools, allowing parents and pupils to participate in the running of the school. In 1969, similar councils were started in pre-primary and primary schools to bring parents, teachers and local councillors into contact. Such councils stimulate the parents' interest in the life of the school.

Since parents' own intellectual level plays an important part in a child's success at school, special attention is being paid to continuing education: firstly by organizing refresher courses for parents in employment, secondly by improving the training given to pupils, raising the level of their studies and providing them with a minimal comprehensive vocational training enabling them to adjust to the rapid technological evolution of the present time.

Medico-social conditions. The report describes what has been done to protect the health of children of school age, and of the staffs in educational establishments which, with the exception of universities, are dealt with in this respect by the Ministry of Health: medical supervision at various levels, the part played by school medical commissions etc. In a circular issued in February 1970 it was proposed to appoint educational psychology groups for the prevention and treatment in school of cases of maladjustment and to organize adjustment sections in nursery schools and special classes in primary and secondary schools.

The school system. Steps have been taken to adjust primary schools to the needs of the world today and of modern education. By way of example, mention may be made of experiments with the three-part timetable, designed to ensure a balance between pupils' physical and intellectual development, and of experiments with continuous progress at the primary level. In the latter, the work is no longer organized according to class levels, but is arranged to cover a whole cycle combining
the final year of pre-primary and the first two years of primary education.

As from 1959, a two-year observation period was instituted in lower secondary education. This period was extended to four years in 1963 and the syllabus was reshaped several times so as to improve equality of opportunities. The general schools (collèges d'enseignement général) were started in the 1963/64 school year, covering all the various lower secondary-level courses. Further reforms are planned so that lower secondary education offers the widest possible range of courses. It must be multi-disciplinary in approach, and geared to scientific progress and to the needs of the national economy.

At upper secondary level, efforts are being made to bridge the gap between an exclusively literary culture and a predominantly scientific one. Attempts have been made to enhance the value of technical and vocational education, hitherto regarded as the poor relation in education. As a result of the reform, technical education does not begin until after the end of lower secondary education, and offers various courses leading to the certificate in vocational studies (brevet d'études professionnelles), the baccalaureate and a certificate in technical studies (brevet de technicien).

Finally, stress is laid on the problem, encountered at all levels, of teacher training and refresher courses. The VIth Plan contains provision for an initial training comprising the multiple scientific, educational, and practical aspects required for an adequate preparation, followed by further training so as to make educational thinking and the exchange of experiences and refresher courses more generally available. This training is intended not only for teaching staff but also for administrators and technical staff in the national system of education. In addition, the reform entails a change in the teacher-pupil relationship: pupils may participate in their own education through individual or group research, discussions, talks, and various activities; they may participate in the life of the school by attending various councils. Methods of marking and evaluation are to be replaced by a system better adapted to modern education. Special measures have been taken regarding secondary school teachers, especially of mathematics. A radical reform is planned of the competitive examination for the secondary school teaching certificate (CAPES) and of the agrégation.
Implementation of these measures.

To simplify the implementation of the reform it was decided to reorganize the Ministry of Education and some of its dependent bodies. In addition, a National Information Office on courses and careers has been opened (ONISEP) while the functions of the National Institute of Education have been divided between two separate bodies: (a) the National Institute for Educational Research and Documentation, (b) the French Office for Modern Techniques in Education.

Further studies.

In general, two opposite tendencies have constantly affected efforts to make education more dramatic. One tendency is to set up a diversified system related to the school population so that each child receives the education best suited to him; the other is to offer all children the same educational opportunities by giving them the same education. It quickly became evident that pupils from poorer homes were educationally at a disadvantage in comparison with pupils from a more privileged home background. Accordingly, various changes were made to adapt methods and syllabuses to suit the new school population. A considerable amount of research is now being conducted with a view to improving educational methods and content in different disciplines, especially in relation to educational technology.

At the present time it would seem that, rather than try to find means to remedy social handicaps, it would be more worth while to study means of preventing these handicaps from occurring. With this aim in view, the Centre for Research on Specialized Education and School Adjustment has concentrated its studies on children in nursery schools, while the National Institute of Education is carrying out experiments in continuous progress methods in lower primary education or, more generally, experiments in ability grouping in primary education.

Part II. of the report contains a bibliography and an annex consisting of statistical and other charts.
**Author**
Gosudarstvennaja naučnaja biblioteka po narodnomu
obrazovanii im. K.D. Ušinskojho.

**Title**
Social'naja sreda učashčajaja i ih šance na uspevaemost'

**Bibliographical data**
Moskva, dekabr' 1970 g. i mart 1971 g. 43 p.
(Reply to an IBE questionnaire)

**Translation**
State Scientific Library of Public Education K.D.
Ušinski. 'The social background of students and their
prospect of success at school'

**Keywords**
USSR

equality of educational opportunity

culturally deprived children

socio-economic conditions

school and collectivity

improvement of education

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**Introduction.** The fundamental principle governing the
whole education system in the USSR is that every citi-
zen is entitled to the same rights and opportunities
in education, regardless of sex, race, ethnic group,
religion, means, or class. Education is compulsory for
all children and young people and all types of educa-
tion are free, but this does not preclude the State
and public organizations from awarding scholarships or
granting other forms of financial aid.

The government, party assemblies, and trade unions are
constantly concerned to prevent premature school leav-
ing. Accordingly a number of measures have been taken
to stop pupils from leaving school before completing
their studies. Essentially these aim at improving edu-
cational work and methods, caring for weaker or sick
children, helping parents to create conditions that
will benefit their children's education, stricter
absence control where no valid reason exists, providing
free transport for pupils living more than 2 kms away
from school, (pupils living more than 5 kms away become
boarders), organizing study group supervision outside
school hours, etc.

There is no antagonism between the two existing social
classes (factory workers and kolkhoz farm workers)
from which the Soviet Union draws its intelligentsia.
Everybody is given the opportunity to develop his
aptitudes and abilities in every field of social activity, including education. Even so, the State has had to exert great efforts to reach people living in remote rural districts, most of whom were almost completely illiterate. Even nowadays, differences in geographical and demographic conditions hinder educational progress, and certain special measures were necessary to raise the standard of schools in rural districts to that of schools in urban districts. Rural schools have priority in maintenance allowances. The expenditure per pupil in the country is 18% higher than in town. Pupils from rural areas either become boarders or enjoy transport and other facilities. In the Far North there are still some itinerant schools for the children of nomadic workers, and each school can accommodate boarders.

Family background and parents' occupation. In general, as there is no unemployment, parents enjoy security of tenure in their jobs. Further training is the State's responsibility.

Pupils' mothers have the same right to work as fathers. The women work either part-time or full-time and are entitled to extended maternity leave with pay. Their children can be accommodated as boarders or stay on at school after school hours in conditions propitious to their overall development and education, they are fed and receive appropriate medical supervision. All state institutions set up to help families with their children's education are open at all times, day and night, during the working week, or as long as the parents' absence lasts.

The housing situation is steadily improving as each year a considerable number of houses to let become available so that each family can have comfortable accommodation of its own. Whenever home assignments demand special educational equipment the schools place the necessary equipment at the pupils' disposal for the evening and enable them to work under the supervision of teachers.

The majority of schoolchildren do not need to take paid work, as State aid to pupils (scholarships, allowances, purchase tokens, clothing, shoes, etc.) is adequate. They are, however, required to perform work of social value - as laid down in the curricula for rural and urban schools and also by school organizations. On the whole, parents show that they are keen that their children should succeed. They offer all possible material help, participate by organizing educational work, guiding study and recreational groups for pupils, organizing
visits to factories, fostering links between families.

Geographical, social and cultural factors. Various methods are employed to solve the problem of distance from school, when the school happens to be very far from the child's home. There are boarding schools in the North, schools in the steppes or in the mountains also have boarding facilities, and transport or boarding facilities are provided in more densely populated areas.

In order to meet the linguistic problems, a wide network of schools has been set up where teaching is in the local language or in two or three languages. Soviet children and foreign children are taught in schools where they understand the language used.

There is no discrimination as regards women's social role and their education. Both in law and in fact, men and women are considered equal when it comes to studies, choice of occupation etc. The salary paid to girls and women is laid down by law and is applicable to all. It is calculated according to quantity and the quality of the work done.

There are virtually no illiterates left. (By 1959, 98.5% of the men and 97.8% of the women could read and write). Many socio-cultural resources are available to everybody: free school and public libraries, various social institutions, radio, television, press etc.

Medical-social factors. Public medical services are free for children and adults. In addition, medical teams keep a regular check on pupils' health. Those whose health is weak are sent to sanatorium-type schools in the forests or elsewhere, where they continue their normal studies while under treatment. The state pays for the children's full board and lodging.

A number of institutions exist for the physically handicapped: special schools for the blind or amblyopes, deaf, deaf and dumb, or those hard of hearing, and additional schools for the mentally handicapped. The State assumes entire responsibility for every institution that looks after pupils mentally and physically handicapped whether for social or biological reasons.

The school and its relationship with society. The report briefly describes the various types of educational establishment in the USSR, at each level: pre-school, general and
specialized, secondary, vocational, and higher. From the secondary level onwards, day and evening classes and correspondence courses are available.

The purpose of vocational training—which is the responsibility of public education authorities and firms—is to help young people to choose the most suitable career according to their aptitudes and abilities and the country's economic needs.

Everything is done to improve constantly the efficiency of the education system: curricula are continuously being improved; teachers make regular and thorough studies of social, political, and family factors affecting the pupils’ work; sound vocational guidance; out-of-school activities organized according to the children's interests are run by experienced parents, specialists and sponsoring bodies; help is offered to pupils in difficulties who are retarded through illness or other accidental causes. Those who are ill receive help from their teachers, school friends or sponsoring bodies.

The school, the family and the collectivity combine their efforts to link and harmonize both school and family education. Educational demands and local conditions determine how these contracts are made: links with an industrial or agricultural undertaking; sponsorship of such an undertaking for the benefit of the family and the school; conferences on educational problems and general policy; educational advice to parents working in the undertaking, information on the school’s general educational activities and on apprenticeships; organizing workers’ leisure time and holidays.

Importance is attached to contact between school and family. Parents' meetings are held, educational advice is given to parents to improve family education, parent committees meet to support the school in all its activities and the more dynamic parents are recruited to help the school.

Main problems due to the influence of social factors. In the opinion of the competent authorities, the main problems arising out of the influence of social factors on pupils' chance of success at school include: improving the public education system, syllabuses and methods in accordance with the demands of scientific and technical progress, with the building up of a communist society and with the specific characteristics of primary and secondary education; training of highly qualified teachers versed in Marxist-Leninist conceptions, modern scientific methods for the subject they
teach and cognate subjects, as well as the most advanced teaching theories; planning and building modern schools equipped with the latest technical installations and technical apparatus, in which the best physical conditions prevail; providing adequate funds to finance the public education system at all levels.

Government policy. The following results have been achieved at government level: (a) the public education system has been considerably improved mainly because conditions are better suited to each person's capabilities and to the collectivity as a whole; (b) the nature and content of education and teaching are better adapted to the present state of science, technology, and everyday needs; (c) thanks to scientific investigation, certain problems involved in the improvement of both content and methods at the primary and secondary levels are now being solved: this entails research to discover more rational means leading to better training, fostering individual initiative among children, quickening their intelligence, their will-power, their feelings, and the personal qualities essential in the future builders of communism; (d) teacher training, which is the responsibility of State universities and teacher training colleges, continues on a larger scale than formerly, and the educational and scientific level is higher; (e) new school buildings are planned according to the demands of education, hygiene, architecture, civil and structural engineering, while also allowing for natural geographic conditions; (f) each year, the State and local authorities earmark increasingly larger sums for public education on their budgets.

Measures taken so far. With a view to avoiding backwardness in children, parents receive help in organizing their children's daily life and studies. Children behind in their studies are dealt with individually. The case of a pupil returning to a school which he had left comes under the law on compulsory education, passed by the Supreme Soviet of the USSR on 24 December 1958.

There is every provision to compensate for poor results when these are due to economic and social conditions, occupational background, family means and way of life, the home, cultural characteristics, and the education system.

Further studies. The following problems require further study: improving teaching methods and the communist education of future generations; supplying schools with teaching aids.
corresponding with the higher standards of modern syllabuses; ensuring that all schools use the most modern teaching techniques; improving the basic material and educational conditions of many rural district schools; allowing collectivities to play a more extensive part in public education.
 Replies by the United Kingdom Education Departments describe measures taken to remedy the various forms of educational disadvantage.

The literature suggests that children from higher social categories do better at school. The nature of the problem is thus partly one of enrichment of the education of children from disadvantaged homes, partly one of removing financial or other barriers to their continued education. In Northern Ireland, despite the lack of statistics, the problems of compensatory education associated with densely populated industrial areas are not thought to be of the same magnitude as in countries where urbanization and industrialization have proceeded much further.

Problems which have been dealt with at policy level are as follows. The measures have been put into effect in the normal course of transactions between the education departments and local education authorities.

(i) Provision of genuine equal opportunity in non-selective secondary schools: the effect of proceeding to non-selective secondary systems in many areas may contribute to ensuring that children from deprived backgrounds are at no disadvantage in their educational progress.

(ii) Special attention is given in school building programmes to the improvement or replacement of school
buildings in deprived areas. Grants covering 75 per cent of capital and running costs of buildings and other projects designed to improve educational provision in such areas are made under the Urban Programme. In Northern Ireland, priority is given to the additional buildings and equipment necessitated by the raising of the school leaving age to 16 in 1972/73.

(iii) In England and Wales, extra teachers under the quota scheme are allowed to authorities in respect of deprived areas. In Scotland, there is no quota system but teachers are encouraged to go to underprivileged areas.

(iv) Smaller classes are provided to give more individual tuition to backward primary and secondary pupils. Teachers of backward children take additional qualifications which rank for additional salary. In England and Wales, teachers in schools "of exceptional difficulty" receive special allowances of salary.

(v) Nursery and pre-school provision is being extended in areas of deprivation to give more children a better preparation for school life. In Northern Ireland, although financial stringency prevents any immediate large-scale development in this field, the establishment of several new nursery schools had brought their number to 24 by 1970.

(vi) With the raising of the school leaving age to 16 (in 1972-73) pupils from limited home backgrounds will have a longer period of full-time education than most of them now receive.

(vii) Maintenance allowances are payable to enable children to stay on at school after compulsory school age.

(viii) There is provision for free school meals and assistance with clothing.

(ix) Children with grossly inadequate homes can be given free or assisted places in boarding schools. Closer relationships between teachers and parents are helping the latter to understand their children's educational needs.

(x) Special language centres have been set up to meet the needs of non-English speaking immigrants, to prepare them for admission to ordinary schools. Provision for immigrants is not a major problem in Scotland or Northern Ireland, however.

To minimize the incidence of health conditions as a factor of maladjustment or failure, the school health service provides free diagnosis and treatment for all children in maintained schools.

Research and development work on the problems of compensatory
education is being undertaken by the Schools Council. Small-scale investigations by the Ministry's Inspectorate in Northern Ireland compared a number of relevant social, economic and scholastic factors in urban and rural environments, while a local study made by the Northern Ireland Council for Educational Research is expected to yield results of value.

Among the problems requiring further study are: further extension of pre-school provision; any additional compensatory provision for immigrant children; and the needs of children of gypsies and other travellers.
To achieve one of its basic goals, individual fulfillment and respect for the dignity of each person, American society continuously strives to overcome the social conditions that result in poverty and ignorance. Education, and therefore the solution of educational problems, are the primary means of achieving this.

The main problems in the relationship between social background and school achievement are: how to ensure equality of educational opportunity in the 50 States; how to raise educational standards and improve the quality of the schools; how to improve the educational professions; how to meet the needs of disadvantaged groups and handicapped children; how to strengthen research, development, and application to improve the quality of education.

Over the past two decades, growing Federal concern to strengthen American education and to counteract the impoverishing effect of certain population shifts by helping to ensure equality of educational opportunity at local level has been manifested in Federal legislation. Particular emphasis has been given to school retention and vocational education and to specific problems occurring in school as a result of children's socio-economic background. This legislation represents an unprecedented growth of Federal support for education. Much of the increased expenditure is for...
strengthening education offered to socially and economically disadvantaged students. The concept of lifelong education is also embodied in legislative provisions.

Further Federal assistance has permitted the expansion of educational research. Research findings indicate that there is little general agreement regarding the locus of the problem of school failure and under-achievement. Of all the factors that contribute to achievement, however, the most influential single one is found to be the role of the teacher. Research also indicates that early childhood education can be significant in overcoming the influence of socio-economic background on achievement.

Recognizing the correlation between school adjustment and educational achievement, education authorities are giving increasing support to the employment of specialists for the guidance, health, psychological and school social work services essential for the appraisal and realization of individual potentialities.

In the field of non-educational social activity, the Federal Government has, over the past decade, embarked upon a number of programmes aimed at reducing poverty and its effects. New legislation emphasizes Federal-State-local government co-operation and is concerned with alleviating the social, economic, cultural and health factors which have a bearing upon children's achievement in school.

The preventive, remedial and compensatory measures taken to deal with factors of maladjustment or failure are implemented as a result of appropriate legislation, of Federal-State-local government co-operation and of educational research and development.

Consideration of problems requiring further study evokes the challenge to the education system to find the means to respond to emerging needs. Instead of producing merely the ability to perform effectively and achieve a level of economic self-sufficiency, educators are now faced with the question of improving the quality of life - a concept that includes a decent environment and attention to such values as human dignity and individual fulfilment.

In this context, the major question is how to structure the educational system in such a way as to make it maximally able to adapt to changing goals and needs of society? There are a
number of considerations relevant to this question, including: how to adequately define educational success; how to get renewal mechanisms into the various educational systems; how to produce and organize knowledge to meet new goals; and how to provide compensatory education to children and youth who have been unable to respond effectively to the school programmes. The following specific issues deal in one form or another with one of these major concerns of American society: issues involving equality of educational opportunity; issues involving the improvement of the quality of education (the right to read, early childhood education, vocational education, urban education in urban areas, teacher education); issues involving the extension of educational opportunities; and issues involving research. These are among the high priority questions which relate to immediate educational goals and need consideration in the near future.
The terms of reference for the committee appointed in 1966 by the Minister of Education were to examine, report and make recommendations to the Minister on
(a) the whole education system of the state in order to determine the most effective use of resources available to the state for education; (b) the organisation of the Education Department including the organisation of teacher training; (c) methods by which curricula and teaching methods of the schools of the Education Department can be kept under review. In its introduction to the report the committee states that the recommendations and suggestions for change are intended to reflect six qualities of an educational system on which it places high value: a non-authoritarian approach to educational matters, a concern for the individual child, equality of educational opportunities, diversity of educational institutions, decentralisation of decision-making, and the opening up of the educational system to a variety of ideas. Appendices contain projections of student populations to 1981, questionnaires used in the survey of each field, and a list of proposals raised in submission relating to the syllabuses of specific school subjects.

The committee based its estimates on the situation to be reached in 1981. Because there will be a much smaller increase in the school enrolments 1970-1980 than in the preceding decade - with the exception of
upper secondary grades, where retention rates will continue to rise emphasis can be placed on improving the quality of education. It is recommended that by 1978 no primary or lower secondary class should exceed 30 pupils and no upper secondary class 20-25 pupils. This will involve an increase in the number of primary teachers by 4 per cent per annum and the number of secondary teachers by 5 per cent per annum. In planning teacher supply, provision should also be made to replace a proportion of the force on extended study leave and to provide extra teachers in the schools where a high proportion of children have special learning disabilities.

To raise the professional level of teachers it is recommended that courses be provided in the teachers' colleges and by universities in vacations for teachers to complete pre-service qualifications, take cumulative credits towards post-diploma qualifications, and for all teachers to undertake at least one week of in-service study each year. A teachers' registration board representing the Education Department, state and independent schools and tertiary institutions concerned with teacher training, should be established to keep a register of teachers qualified at all levels, with powers to inquire into allegations of professional misconduct and suspend teachers on those grounds.

To assist teachers in developing various forms of curricula and new teaching practices it is recommended that substantial increases in ancillary staff be made at the rate of two for every three teachers, and in supportive services such as psychological guidance. The subsidy for the audio-visual equipment should be discontinued and schools should be provided with budgets to be spent at their own discretion. The Libraries Branch and the Audio-Visual Education Centre should be amalgamated into a teaching resource centre, with associated area centres, and it should collaborate with the Education Research Centre of the Education Department in continuing evaluation of multi-media approaches and materials.

The committee considered the case for an education commission exercising statutory powers and being free from government and ministerial control but found it inconsistent with the principles of parliamentary democracy, to remove education from ministerial responsibility and accountability to parliament. It therefore recommended that an advisory council of education including representatives from pre-school, primary, secondary, further and tertiary education as well as lay members, should be set up to advise the Minister on matters
concerning education, to hold every five years a general inquiry into the purposes, curriculum and methods of the schools of South Australia and to publish its findings. In addition, the committee recommended that all finances for education, and all staff with the exception of the Director-General of Education, his deputies and central administrative staff, should be moved from public service to ministerial control. A second post of deputy director-general should be created: one should be responsible for schools and the other for provision of resources, with a new branch created within this latter section, responsible for recruiting, welfare and personnel policies apart from those relating to deployment and promotion of staff. A director of research should also be appointed.

To encourage diversity and wider community representation it is recommended that advisory curriculum boards should be enlarged to include representatives from every level of education as well as lay members and that individual school committees be enlarged to include members of the outside community and, in the case of secondary schools, students.

With regard to the internal organization of the schools it is recommended that changes be made to provide a continuity of educational experiences and a greater emphasis on individual development. Entry to primary school should be on a continuous year-round basis, infant (first three grades) and primary schools should be integrated and changes in curricula should be made to ease the transition from primary to secondary level. The present system of high and technical schools should be integrated into co-educational comprehensive schools and the present arrangement of five 'tracks' or streams should be replaced by a system allowing pupils to progress in different subjects at different rates according to ability. An inquiry should be authorized into the nature and purpose of examinations and certificates at the end of secondary schooling and into the most appropriate methods of assessment of student achievement at this level.

In 1961, 19.5 per cent of children between 3½ and 5 years of age were attending government-subsidized pre-school centres. The committee recommends that an increase in places should be provided at the rate of 1,200 per year over the next five years, and that a pre-school committee be established to advise the Minister on the over-all development of pre-school education.
A steady expansion is expected in non-tertiary technical, adult, nursing and agricultural education. A director of further education should be appointed, responsible to the Minister, who would undertake a complete review of the training required for trade and adult education teachers.

Tertiary education is divided into three areas: universities, colleges of advanced education and teachers' colleges, which are at present the responsibility of the Education Department. It is recommended that all non-university tertiary institutions should be incorporated and controlled by their own governing bodies and that an institute of colleges be established with representatives of the universities, colleges and the Further Education Department, members of parliament and lay members to be responsible for finance and staffing, the award of degrees and diplomas, the co-ordination of courses and to advise the Minister on desirable developments in the field.

With regard to teacher education, it is recommended that a separate board of studies in education under the institute of colleges should be set up responsible for the academic supervision of education. Any necessary expansion in teacher training facilities should take place in a multi-purpose institution. Teacher trainees should be assisted to complete their qualifications before entering employment by the provision of extra vacation courses to enable students failing in a subject to catch up. The system of bonding students to serve as teachers for a number of years after completion of diplomas should be phased out.

To co-ordinate the whole field of tertiary education it is recommended that a tertiary education committee representing all types of tertiary institutions and including members appointed by the government should be established to advise the government on needs and developments in this area and to promote co-ordination, initial assistance and diversity where appropriate.

The committee recommends a number of measures to promote equality of opportunity at all levels. Research funds should be granted to the Pre-School Committee to establish projects with this aim. The state should assume full responsibility for handicapped children and more liberal staffing should be provided for schools with a high proportion of children with social and learning difficulties. Teachers' college courses should include a unit for all trainees on the teaching of
handicapped children and should place increased emphasis on programmes which allow children to progress at their own rate. Pilot projects should be set up by the Education Department for the education of aboriginal and other socially-handicapped children.

With regard to scholarships, it is recommended that Commonwealth Scholarships, now awarded on the basis of an examination for the completion of the final two years of schooling, be spread over a wider range of students by the imposition of a means test, and that Commonwealth Scholarships for tertiary studies should be granted to all students obtaining a tertiary place on the basis of a means test. Failing this, the state should introduce allowances based on a means test.

The committee considers that implementation of the above proposals will require a rate of increase in government expenditure in terms of constant price and wage levels of a little over 7 per cent per annum, the fraction of national production devoted to education by 1981 being about 60 per cent higher than in 1970.
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<th>Author</th>
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<tr>
<td>Title</td>
<td>The training of skilled workers in Europe: Report of ..., 1968-69</td>
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<tr>
<td></td>
<td>Hobart, Tasmania, Government Printer, 1969. 576 p., figs., tables, bibl.</td>
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| Translation | |

| Keywords | Australia educational mission Europe vocational training migrant worker |

In July 1968 the Minister of State for Labour and National Service appointed a tripartite mission to undertake an examination of the methods of training skilled workers in a number of countries from which Australia is obtaining or is likely to obtain migrant tradesmen. The report was intended to provide the basis for revising the criteria for the selection overseas and the recognition in Australia of migrant tradesmen coming within the scope of the Tradesmen's Rights Act, for establishing criteria for countries not covered at present, and was also expected to be of value to the Department of Labour and National Service, the Department of Immigration, technical training authorities, employer organizations and unions. The mission visited Austria, Belgium, Denmark, Finland, France, Federal Republic of Germany, Greece, Italy, Malta G.C., Netherlands, Norway, Spain, Sweden, Turkey, United Kingdom and Yugoslavia.

The first part of the report is concerned with a general discussion of the various systems of training practised in European countries, the training authorities, role of the trade unions and employer authorities, standards of schools, cost, length, entry standards and
supervision of training, syllabuses and examinations, adult training, the attainment of skilled worker status, and the new approaches being developed in response to technological change.

The establishment of criteria for selection of migrant tradesmen will not mean a large flow of skilled tradesmen into Australia. Many European countries are short of skilled labour and the system of labour contracts and 'guest workers' developed has an advantage over Australia's migrant scheme. A more important result of the report may be the reconsideration of Australian systems of vocational training in the light of the data obtained. More consideration is given in European countries to the problems of vocational training as evidenced in the vast financial investment in vocational training by governments, strong support, financial and otherwise for new methods by employers and unions, in new legislation, and in the development of new systems to ensure that training is of an increasingly high standard and internationally comparable. International bodies including government, employer and trade union representation are attempting to improve standards, bring about uniformity between various European nations and assist developing countries in providing accelerated training arrangements.

From its study of European training methods the mission concludes that several aspects of Australian vocational training require attention. The Australian Government and employers must recognize and accept the large financial cost of providing vocational training and should consider the levy-grant system in use in the United Kingdom, where each employer pays a levy and receives a grant according to the amount and level of training his establishment provides. There is general agreement in European countries that an initial period of off-the-job training combined with a block-release system for later years is the most suitable method of training and that three years is a satisfactory period of training.

The provision of detailed syllabuses and training manuals is believed by the mission to be an
essential adjunct to a modern training system, as is closer supervision of on-the-job training. In Australia there is no practical examination during or at the completion of training and the mission believes that a series of phased tests should be introduced. Adequate courses should be provided for vocational teachers and workshop instructors. There is a need for suitable arrangements for training and re-training of adult workers and for training programmes during normal working hours to enable those who have completed their apprenticeship to gain higher skill classifications without financial loss. Australia remains the only advanced industrialized country where there is no general co-ordination of training on a national basis and steps should be taken in the various states to develop uniformity of training methods and standards and common acceptance of qualifications.

The second part of the report contains a detailed survey of the training arrangements in each country visited, under the following headings: general background; education system; training of skilled workers by apprenticeship and full-time vocational training; adult training; acquisition of skilled worker status; licensing of various trades; trade syllabuses; training of vocational teachers, and new legislation. There is also a summary of methods of training skilled workers in each country.
<table>
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<th>Author</th>
<th>Ørum, Bente</th>
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<td>Title</td>
<td>Social baggrund, intellektuelt niveau og placering i skolesystemet</td>
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<td>København, Socialforskningsinstituttet, 1971. 144 p. (Studie 20)</td>
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<td>Translation</td>
<td>The relationship between social background, the intellectual level of pupils and their situation in the school system at the age of 14.</td>
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<td>Keywords</td>
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Report of the first in a series of investigations into the educational and vocational choice of a generation of young people. This investigation was carried out under the joint initiative of the Ministry of Education and the Institute of Social Research, and forms the second part of a research project started in 1964. A special report of the first part of the project, a survey of the social and economic situation of Danish youth in the period from the termination of compulsory education to the end of their 20th year, was issued as No. 47 in the publication series of the Institute of Social Research, under the title: Ungdom og uddannelse. De 14-20 åriges uddannelses-situation 1965. Youth and Education 1965. The educational situation of young people from 14 to 20 years of age.

The principal aim was to investigate the relationship between intellectual level, social background and the personal circumstances of the pupil within the school system at the age of 14 years. The reported findings are based on material obtained from part I of the Longitudinal Youth Survey, the data being extracted from information provided in 1968 by about 3,000 7th-grade pupils who answered questionnaires and were given intelligence tests. Their parents also answered a questionnaire concerning their own educational background, their contact with the schools attended by their children, their attitude to education in general.
and to the homework of their children.

The intelligence tests used were group tests, one mainly verbal (reflection test \[\text{omtankanprvag} \] 0.55 of the Psycho-technical Institute), one spatial and the third inductive. The last two tests were constructed by Kjell Härnqvist, Göteborg, Sweden.

As regards the correlation between the IQ tests and a number of variables, only small differences were found between boys and girls, while large differences were noted in respect of age, the youngest being the most gifted. Rather small differences were found in respect of family size and residential area, and no differences as far as the order of birth was concerned. In respect of the social status of parents, great differences were found in the average intelligence of the children, although this does not imply that all children in the lowest social stratum (V) were less intelligent than those coming from the highest stratum (I).

There is an overlap between the various levels: 20 per cent of the children from stratum V had a better score than the average in stratum I, and about 35 per cent of the children in stratum III had a better score than the average in stratum I.

On the basis of these findings nothing can, of course, be concluded concerning innate intelligence, the level of which, at the age of 14, is the result of an interplay between many factors, hereditary potentialities being particularly important in determining the final measurable result. In measuring intelligence, varying importance may be attached to its different aspects. For the present analysis mainly verbal tests were used, as they are considered to correspond most closely to the objectives of the school.

1 Description of the five social strata used in this report:
   I. Self-employed persons in large concerns and salaried employees in top-ranking positions (more than 50 subordinates), and university graduates. II. Self-employed persons in medium-sized concerns and salaried employees in high-ranking positions (10 to 50 subordinates). III. Self-employed persons in smaller firms and salaried employees whose work is not pure routine. IV. Self-employed persons in small-scale concerns and salaried employees with routine work, and skilled workers. V. Unskilled workers.
At the end of the 7th grade the pupils may be considered to form three different groups, as follows: pupils continuing their education for an entrance examination into the gymnasium (upper secondary school), some of whom will be transferred to that school; pupils continuing in the "general" department of the lower secondary school and leaving school after the eighth, ninth, or tenth school year; pupils who discontinue their general education at the end of the period of compulsory education and the completion of the seventh school year.

There is a strong indication that the intellectual level of the pupils is connected with either leaving school prematurely, or continuing their education in one form or another.

It has previously been shown (E. J. Hansen, 1968) that early leavers come mainly from the lower social strata. The findings of this survey indicate that they are, on the average, in the low ability range. Five times as many children with an intelligence below the average will leave school at the earliest legal moment. However, the intelligence level of the pupils is not the only factor at work in early leaving, the social status of the parents being also an important factor. If a child is poorly gifted and his parents belong to the lower social strata, he is likely to leave school prematurely at the termination of compulsory schooling.

This does not seem to be satisfactorily or solely explained by the various factors of the child's intelligence, and social background: the school system must also be taken into account. What type of interplay is at work between the school, on the one hand, and the intellectually and socially disadvantaged child, on the other? For such a child the school seems to have little attraction, and so little to offer that he is only waiting for the first chance to leave. Whether his leaving school is an "escape", or whether the school forces him to search for other values outside, this is an important question at a time when compulsory schooling is to be extended by two years, and steps must be taken to create favourable conditions which will benefit these children.

Continuing in school beyond the compulsory school period, and making a transfer to the secondary school in preparation for the lower secondary school examination is, of course, closely connected with the child's level of intelligence. Very few children of below average intelligence make the
transfer. Half of the children of exactly average intelligence, and more than half of those above average intelligence, continue their education in the lower secondary school.

The social status of the child's parents plays an equally important role, although this is only a partial indication that children coming from the higher social strata have superior intelligence. In tests requiring minimum intellectual demands, no differences in attainment were found in respect of social status among pupils continuing in the lower secondary school. On the other hand, an interplay between a number of factors (parents, teachers, the school) seems greatly to influence the pupils' chances of getting into the lower secondary school. The social status of parents is clearly a strong factor in the actual distribution of children who drop out at the end of the 7th grade, or their promotion to the 1st form of the lower secondary school: 12 per cent of the children from social group V, and 2 per cent from social group I, drop out at the end of the 7th grade, while 81 per cent from social group I, and only 25 per cent from social group V enter the lower secondary school.

In conclusion, therefore, high probability of entering lower secondary school requires that the child not only be intelligent, but also that his parents be of high social status; otherwise there is a likelihood that he will leave school at the termination of compulsory education.
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<td>Title</td>
<td>Folketingabslutning om en reform af de grundlæggende skole uddannelser. 30. maj 1969</td>
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<td>Parliamentary Resolution of 30 May 1969 concerning reform of basic school education</td>
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This Resolution requests the Government to work out plans and introduce a bill for the continued development of the Folkeskole (elementary/lower secondary school) and other basic educational programmes.

The Folkeskole should be organized as a ten-year general school without specific vocational aims, comprising a nine-year basic school and a supplementary tenth school year. The present curriculum, general timetables and school leaving regulations should be subjected to impartial examination.

Instruction during the eighth and ninth school years should comprise certain core subjects and a number of wholly or partly optional subjects so that school education and the leaving examinations may be differentiated according to the pupils' individual interests and qualifications. To assist the development of new educational methods, further practical school experiments and comprehensive educational-methodological course activities should be organized and the opportunities for teachers to co-ordinate their teaching activities in different subjects should be improved.

After the ninth school year, pupils should have the opportunity to continue their education in a tenth school year in the Folkeskole or similar type of school or to begin a broad vocational basic training. Transfer to the Gymnasium should, as hitherto, come after the
ninth year. Accordingly, as from 1975 all children should in
effect be offered ten years of continuous schooling.

An endeavour should be made to develop the education of
handicapped pupils in such a way that teaching is given in
a normal school environment if the parents wish and are able
to assume the care of their child at home, and if institu-
tionalization is not necessary to ensure treatment.

The ability of the schools to help pupils who have behavioural
problems or suffer from mental disturbances should be im-
proved through the development of observation instruction
programmes, psychiatric advice at school and extended practi-
cal co-operation with the children's and young people's
welfare services. Plans for a joint effort in child and youth
psychiatry and the development of treatment clinics and hospi-
tal wards should be promoted as much as possible.

Co-operation between home and school should be supported and
encouraged not merely to further the general well-being of
the pupils in the school and the mutual understanding between
parents and teachers but also to improve educational guidance
and advice concerning educational options for pupils.

The eighth school year should be made compulsory from 1972/73
and the ninth school year from 1973/74. The obligations
concerning compulsory education over the number of years
mentioned may be met by attendance at the Folkeskole contin-
uation schools and youth schools, and these types of school
will form part of the nine-year basic school education in
line with free schools (Priskoler) and other private schools.
Opportunities should further be given for interrupting school
attendance after the seventh school year with a view to try-
ing gainful work or other types of instructive occupation,
the obligation of compulsory education thus being complied
with during a period of ten years. The question of complete
or partial exemption from compulsory education should finally
be seriously considered.

The rules governing the beginning of school attendance should
be made more flexible in order that greater individual account
may be taken than hitherto of the development of the child
and of the wishes of his parents.
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<td>Student Government</td>
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**Student participation through student councils and co-operation committees is recognised by the Ministry of Education, and in a circular letter of 4 September 1968 the Directorate for Upper Secondary Education laid down guiding regulations for the orientation of headmasters and interested student bodies.**

Pupils must be encouraged to involve themselves in the organization of the activities of their school, and thus given the opportunity to see their viewpoints respected, while learning at the same time both respect for other people's ideas and responsibility for their own acts. The headmaster and the teachers are asked to aid the pupils in establishing student councils and to help them in their day-to-day work.

Student councils should work independently and on their own responsibility, and their aim should be to co-operate in: furthering a relationship of trust and positive collaboration between teachers and pupils and thus helping to create good working conditions to the advantage of themselves and their school; developing a critical sense, tolerance and a feeling of responsibility, thus furthering democracy in acts and ideas in their school; co-ordinating pupils' activities and, through consultations with the headmaster, solving routine problems; helping students to gain experience in community activities while at school and when
leaving school; activating pupils to participate in solving problems within practical, disciplinary and educational fields.

Guiding principles for student councils and co-operation committees in upper secondary schools

The student council is the official representative body of the pupils, whom it represents in their relationships with the school, its head and its teachers and with the general public. All pupils attending a school may vote for, and be elected to the council. Members receive no remuneration. The council's regulations, governing membership, voting procedures, period of function, finance, accounts and amendments to regulations, will be worked out and adopted at a student meeting, at which, as in the case of the ordinary annual meeting, all pupils of a school have the right to be present and to vote. The student council will draw up its own agenda.

Expenses of the student council not covered by support from the State, the municipality, private institutions or otherwise should be paid from pupil subscriptions, the amount of which should be fixed at the ordinary annual meeting.

The objective of the student council is to attend to the educational, cultural, personal and financial interests of the pupils. It should have authority and responsibility with regard to the leadership of the school only in so far as this concerns pupils. The student council should be consulted in practical matters where required in day-to-day co-operation between head, teachers and pupils.

Two elected representatives of the council have the right to be present at negotiations concerning the granting of scholarships etc. in accordance with a Royal Decree of 26 July 1922. Representatives of the student council have a right to participate in the meetings of the school board or teacher council when proposals from the student council are on the agenda, and may participate in other meetings if the school board or teacher council finds it desirable.

A permanent co-operation committee should be appointed at each school to act as a direct contact organ between the headmaster, school board or teacher council and student council. It should comprise: the headmaster, as chairman of the committee, the chairman and two members of the school board or teacher council and the chairman and two members of the student council. Apart from furthering co-operation
between teachers and pupils, the co-operation committee would speed the solving of problems and co-ordinates the endeavours of the teachers and pupils. It is considered desirable that the co-operation committee should later be entrusted with working out disciplinary regulations and laying down other rules concerning pupils' behaviour within the premises of the school. Under paragraphs 8.2 and 11 of the Act concerning Administration and Supervision of the Municipal School System, however, it is the school committee that lays down disciplinary regulations for municipal upper secondary schools.

Should disagreement arise between the leadership of the school and the school board or teacher council on one side and the student council on the other, and should it be impossible to resolve these disagreements in the co-operation committee, the headmaster or other authority in question has power of decision, but appeals against such decisions may be lodged by either or both parties with the Ministry's Directorate for Upper Secondary Education.

Abstract prepared by the Danish Ministry of Education and submitted through the Documentation Centre for Education in Europe.
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<td>Zakon za srednoto obrazovanje</td>
<td>Služben vesnik na Socijalistička Republika Makedonija (Skopje), 1970, br. 24, p. 401-418</td>
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The secondary education of young persons and adults in the Socialist Republic of Macedonia is regulated by the Secondary Education Act, which became law at the end of 1970.

Secondary education is an integral part of the consolidated system of education and training and serves the latter's general purposes, as well as its specific objectives. All citizens have an equal right, as specified in the Act, to acquire the knowledge and skills they need, in any type of secondary-level institution, viz., secondary schools, scholastic centres, workers' and peoples' universities, centres for the education of workers and labour organizations, employment agencies and other specialized institutions. Admission is conditional upon the pupil's having completed elementary school or a course of adult elementary education. Any person not more than 17 years of age, who has completed his or her eight-year elementary education, may enrol in the first class of a secondary school. Enrolment in this class is on a competitive basis. Education in secondary schools and comparable institutions is free.
Secondary education and training may be acquired either by regular schooling in secondary schools and other institutions and organizations; or at in-service classes or through periodic attendance at appropriate courses or continuation classes, or through other forms of further education and extension classes, subject to passing the prescribed secondary education examinations. Secondary schools and other institutions and organizations are responsible for adult secondary education and collaborate with other schools and institutions working in the latter field. Apart from straightforward teaching, special forms of vocational training in the economic sector and in the social services are provided. Secondary schools include: specialized schools for various occupations and professions in the economic sector and in the social services, State secondary schools, which may be specialized (social sciences and languages, natural sciences and mathematics) or comprehensive; and art schools. They are autonomous and self-governing labour institutions, whose work is of special interest to the community. Each school has its own statutes. Secondary schools may also be organized as scholastic centres.

The instruction given in secondary schools includes both theoretical and practical work, productive work and holiday tasks forming an integral part of the latter. The programme for secondary schools comprises: lessons, including continuation and extension classes, practical, productive and other socially beneficial work, and practical holiday tasks; free activities; lessons in hygiene and physical training periods, together with social, cultural and public work; supervision and assessment of the pupils' progress and conduct; and examinations. The total length of teaching periods - theoretical and practical lessons, practical work and holiday tasks - scheduled in the timetable may not exceed 36 hours a week. The bases for the timetable and programme are laid down by the Parliament of the Socialist Republic of Macedonia on the proposal of the Republički savod za unapređenje skolstva (State Institute for the Promotion of Education).
The common content of teaching material for all types of secondary school and for vocational and specialized secondary education is determined in accordance with the provisions of the over-all timetable and programme. Common (general) instruction covers two school years (preparatory period); the duration of vocational and specialized education (finishing period) is determined individually for each type of school in accordance with the requirements of the over-all teaching plan and programme. Pupils who have completed the preparatory period are entitled to seek work in labour organizations where they can receive vocational, specialized education; or they may continue with their regular secondary education.

Provision is made for the organization of supplementary classes for backward pupils, and for auxiliary classes for pupils who display special interest, aptitudes and ability. Pupils' practical work at secondary schools is done in the school workshops, laboratories and other facilities, but may also be organized in out-of-school labour organizations. Productive work is organized for the pupils during the course of the school year, in accordance with the prescribed curriculum, in the school workshops, laboratories and other facilities or in labour or other organizations.

Secondary schools also organize their pupils' free activities. Such activities are engaged in within the framework of pupils' organizations and societies, and in other forms of pupils' associations, such as: study groups for individual subjects; special independent pupils' in-school organizations (for literature, drama, painting, music, sports, etc.); and other out-of-school organizations (natural history and sports clubs, holiday associations, etc.).

Pupils are marked on: progress made in individual subjects; conduct; and general position in class. Pupils who, at the end of the second semester, fail in one or more subjects, including practical work, are required to sit a further (corrective) examination in the subjects involved. A pupil who also fails this corrective examination in one or more
subjects may sit an extraordinary examination; if he manages to pass all his examinations before 30 September of the year in question, he may enrol as a regular pupil in the next class in the same school year, provided he fulfils the other requirements. Pupils showing outstanding ability, knowledge and hard work may take, as an exceptional measure, at the end of one year the next year’s examinations; but they may do so only twice in the course of their secondary schooling.

It is laid down that the following types of examination shall be held in secondary schools: corrective, class (annual), supplementary, extraordinary, and final; in addition, examinations for individual trades or professions may be taken by those pupils who have, through practical work in a labour organization, acquired the expert knowledge required for the practice of their chosen occupation.

The school year, beginning on 1 September and ending on 30 June, is divided into two semesters. The first begins on 5 September and ends on 15 January. The winter holidays last from 15 January to 1 February. Lessons in the second semester begin on 1 February and end on 20 May for pupils in the terminal class, and on 10 June for all others. The summer holidays go on until 5 September. Secondary schools are obliged to provide in the course of the school year a total of at least 210 teaching days (185 teaching days for pupils in their final year).

Any person with the required university education and qualifications may become a teacher in a secondary school. The weekly number of teaching hours and time spent on non-teaching activities for each teacher is laid down in the school statutes.

The prescribed system of standard reporting is to be practised in all secondary schools. Each pupil is issued with a book recording his progress and conduct and, when he has successfully completed his secondary schooling, is awarded a certificate confirming that he has passed the final examination.
Secondary schools may found labour and other organizations, associations, and other social and political societies. A newly-established school may begin its work only when the State Secretary for Education confirms that all the requirements for normal operation have been met.

The entire life and work of the secondary school are based on the principles of self-government.

One-third of the membership of the school council, as the governing body, consists of pupils. The council discharges the specific functions laid down for it in the school statutes. In addition to other duties, the school council appoints the headmaster of the school on a competitive basis and in agreement with the administrative council of the commune on whose territory the school stands.

Expert supervision of the work of secondary schools is carried out by agents of the educational and teaching authority in accordance with separate provisions governing this work.

For the purpose of implementing the tasks foreseen by the Act, secondary schools may form societies by type of school and on a territorial basis. These societies give expert advice and make proposals to the responsible authorities, take part in drafting and working out timetables and teaching programmes and in determining requirements and priorities for the publication of textbooks, work out norms for each type of school, and approve the secondary school building programme.

Secondary education may also be acquired at workers' and people's universities, at centres for workers' education attached to labour organizations, at employment agencies, and at other specialized institutions. These organizations may themselves set up their entire educational and training activities on the same lines as in ordinary secondary schools, or prepare extra-mural students for secondary school examinations. Instruction in such organizations and institutions as are authorized to provide adult secondary education facilities is given in accordance with separate timetables and programmes.
Hostels shall be set up to provide pupils with board and accommodation and to meet their other educational and training needs.
One of the tasks of the Educational and Cultural Council of the Federal Parliament in 1970, as provided for in its programme of work in pursuance of a resolution on the development of education and training on a self-managing basis, was to consider current problems of scientific and technical culture and productive technical creativity and to draft an appropriate instrument - a resolution - on the development and advancement of these activities. The Council of Narodna Tehnika [see next page] in collaboration with the interested institutes and organizations, prepared, through the medium of a special working party on which all the republics and provinces were represented, the special analytical material published in the work under review.

In this book an attempt is made: (a) to establish the present position and trends in the development of scientific and technical culture and the productive technical creativity of children, young persons and adults; (b) to identify the reasons for the emergence of fundamental problems and contradictions in the development of scientific and technical culture and in its financing; and (c) to formulate proposals for a series of measures which would advance the social and economic conditions for the development of scientific and technical culture and productive technical creativity, construed in their broadest sense, as an
intellectual endeavour and a search for what is new, involving the rational transformation of production and the nature of man's work - or as the conditions for and methods of turning technology to account in all manifestations of human life, which has its own psychological, pedagogical, educational, socio-economic and ethical significance.

The present system of technical education and training in schools - mainly elementary and secondary - is based essentially on the school reform of 1958.

Before 1958, the technical education of children and young people, through clubs and sections, was mainly the responsibility of the Federation of Yugoslav Organizations for Technical Culture [hereinafter referred to as Narodna Tehnika]. In the teaching of the natural sciences, emphasis was laid on the principle of linking such subjects with living, and on the requirements of so-called "polytechnization", but this usually boiled down to pointing out the importance of the links between the social, productive, educational and training functions of the school. The 1958 reform gave a more tangible expression to the notion that the development of the forces of production, and of science and technology, and hence the material conditions of human life, must affect the school system and the aims of education and training. A great stride forward was taken at that time, mainly by compelling the schools to occupy themselves with the tasks of technical training and by the introduction into general education curricula of special subjects (the principles of general technical education in elementary schools, and technical education proper in State secondary schools), and by requiring that all pupils take part in productive work and other activities - among them technical ones - beneficial to society, as activities that it was the schools' duty to develop.

The initial successes - despite resistance from various quarters - were achieved thanks mainly to the devoted efforts of the managements of some elementary schools, especially experimental ones, but also to the first teachers of general technical education and finally to the support of the pupils themselves and of some parents. In State secondary schools, however, the process has gone significantly more slowly. Much faith was placed in sending pupils to productive work in factories; unfortunately, from the outset the possibilities of doing so were everywhere inadequate. In higher education, apart from preparation for a pupil's chosen profession and scientific work, technical education as a separate activity...
lives predominantly through students' technical clubs.

In the meantime, the system of technical education has to some extent settled down in such a way that, depending on the type of school, on material and staff availabilities, on the needs of the environment and on the pupils' degree of interest, it is now gaining its independence, mainly in the following basic forms: straightforward instruction (mainly in special subjects - the principles of general technical education - followed by the teaching of science, mathematics, economics and so on); pupils' productive and other practical work (both in the classroom and through pupils' societies); ancillary school activities for technical education (lectures, courses, films, television, circulation of technical literature, technical libraries and so on); and pupils' free technical activities (young technicians' technical clubs, "scientific" groups, pupils' pioneer groups, youth organizations and the like).

The teaching of general technical knowledge in elementary schools is the most highly organized and intensive form of the schools' compulsory activities in this field. The pupil's free technical activities are mainly exercised through clubs and sections of young technicians, through technically oriented, skilled (scientific) groups and through pupils' societies.

The school is not the only institution in which technical culture and education can be acquired. Industrial enterprises also play an important part. On that account, the educational and skill structure of those employed in industry represents a very complex approach to the development of scientific and technical culture. In particular, depending on the condition of the labour organizations involved and the social environment, all forms of labour must be represented, covering the whole gamut from the acquisition of ordinary literacy, through the first steps in technical knowledge, vocational training and qualifications, right up to cybernetics.

A special form of incentive for nurturing and advancing the scientific and technical knowledge of workers in industrial labour organizations is the workers' productive rivalry. Basically, this stems from the powerful orientation of the country's economic activity towards a drastic rise in levels of efficiency in all sectors of technical, technological and economic development, in which the ability of the worker to make the best possible use of the means of production and to "extract" the maximum productivity from them is the decisive factor in the production cycle.
Narodna Tehnika has failed to develop work adequately in the village, with the consequence that the latter, sunk in agriculture, lags far behind the general development of the urban social environment, its backwardness all the more apparent against the background of current conditions of rapid development and modernization of industry. It is now necessary, in an effort to arrive at a fuller solution to the problems of the village and its young people, to achieve a powerful breakthrough on a broader front that will bring scientific and technical learning to the agricultural population. The village population totals over four million able-bodied citizens, the great majority of whom have gone through only a few classes of elementary school, yet the village economy uses contemporary machines and appliances, not only for the purposes of agricultural production, but also in the cultural life of the family and in broader social contexts.

Among present efforts to develop scientific and technical knowledge in agricultural labour organizations, the agricultural workers' competitions that have been so successfully organized all over Yugoslavia for more than ten years have best proved their worth.

Among the most important factors in the development of scientific and technical culture and productive technical creativity is Narodna Tehnika, which not only organizes and propagates a multiplicity of widely varying activities in this field, but also, indeed usually, initiates and co-ordinates the activities of other agencies working for the technical education and training of all strata of the population. Narodna Tehnika, which has been active since 1946 without a break, is defined in its Statutes as a mass, socio-expert organization in the technical field. In reality, it is a broad, voluntary federation of a number of organizations established in this field and brought together through membership of the Federation. Its general aim is to make the greatest possible contribution to the further raising of scientific and technical standards, and especially to inspire, foster and develop productive technical creativity at all levels of the population.

The specialized technical member organizations are autonomous. They usually have their own separate administration and organs, and their own basic constitution. However, the constituent organizations of such federations are free to form joint associations and to act in unison in their relations with general technical organizations. Collaboration between all these
agencies is effected through joint bodies - the council and annual assembly of Narodna Tehnika - and through other standing or ad hoc organs set up by common accord.

At the moment, 19 specialized technical organizations are working under the aegis of Narodna Tehnika, on specific tasks (of limited scope), membership structure, field of activity, organizational structure, etc.

The typical feature of the work of most of the federations in Narodna Tehnika is that they do not confine their activity to recruiting and organizing active members. Many of them organize varied activities aimed at expanding the scientific and technical knowledge not only of their own members, but also of the general public. Thus the activities of this kind assume far greater significance.

There are also a very large number of socio-political organizations, learned societies, agencies and scientific and technical institutions which are making a contribution to scientific and technical culture and productive and technical creativity. Their activity is usually of a twofold nature. They either act as initiators and organizers of the development of scientific and technical learning, or contribute to the development of such learning among citizens of all ages through their broader and mutual activities, especially in collaboration with Narodna Tehnika.

Narodna Tehnika being an organization whose basic task is to develop scientific and technical culture and productive technical creativity, all the agencies mentioned above collaborate in greater or lesser degree with its commissions, or with the administrations of its member federations. This cooperation is equally important at the communal, municipal, provincial, republican and federal levels. A wide range of institutions are at present helping to develop Yugoslav scientific and technical culture, either as direct agents or because their activities assist such development.

The last chapter of the book deals with methods of financing scientific and technical culture and productive technical creativity in Yugoslavia.

Abstract submitted by the Yugoslav Institute for the Study of Scholastic and educational Problems, Belgrade
In 1968, the author of this work carried out an inquiry in secondary schools into the development of sociability among the young people attending them. The book sets forth, mainly on the basis of empirical studies, the outcome of educational action to develop sociability among secondary school youth. The inquiry also embraced the effects of social relationships and the organized social environment.

The principal feature of the work was an analysis of the effects of the educational influences acting on the pupils, without neglecting, for the sake of completeness, either the social or the psychological aspects of the phenomena studied. The investigation as a whole took in the following manifestations of sociability among secondary school youth: mutual relations in the class, the school and society; interrelationships between teachers, class leaders and pupils; social adjustment of the pupils and their acceptance of society; friendship and comradship; pupils' reaction to exemplary personalities around them; influence of youth organizations; spontaneous formation of adolescent groups; pupils' participation in the social management of the school; relations between parents and adolescents.

Using the techniques of statistical sampling, the investigation covered 640 pupils (from 25 classes).
their final year at 16 secondary schools in the Socialist Autonomous Province of the Vojvodina. The conclusions reached by the author as a result of his inquiries may be summarized as follows.

Investigation of the mutual relations between young people confirms that friendship is the typical feature of adolescence. Friends are made in a limited, or broader, but always predominantly scholastic environment. The results obtained show that outward ties lose their earlier significance as a factor in interpersonal relationships. This means that spatial separation has no adverse effect on the formation of friendships: the number of adolescents whose friends do not attend the same school is relatively large. The information showing that secondary school pupils gradually detach themselves from the surroundings in which they grew up, and find new friends in their new social environment, is of special significance. Since friendly relations are much more easily guided in the same class and in the same school, more attention must be paid to the organization of those teaching and non-teaching forms of in-school work that promote the development of friendship. The pupils' replies reveal that moral qualities and character usually provide the basis for the formation and maintenance of friendships and that sincerity is the quality that young people value most highly. They consider, in fact, that sincerity is man's most important attribute. Characteristically, this quality was more often mentioned by boys than by girls. After sincerity, it is understanding and reliability that count most in forming a friendship. Analysis of the most highly valued elements of friendship shows indirectly that friendships made in childhood can be kept up during adolescence, provided that the appropriate psychological and educational conditions are present. Adolescence is the period of conscious evaluation of the ties of friendship. The attitude of the pupils questioned to the formation of friendships indicates a high degree of social motivation.

Investigation of the consequences of social prejudices is of particular significance in determining social maturity and upbringing. The mere fact that young people usually form friendships with those of their own age does not reflect any harmful prejudices: most of those questioned believed that age differences are no obstacle to the formation of friendships.

The new socio-moral standards, and the changed content of
educational and training programmes and various forms of work carried out, together favour the adoption of progressive attitudes to friendship. A very positive attitude to the effect of sexual differences on the establishment of friendships is typical and children harbour no prejudices about about nationality. Changed social and economic circumstances and educational influences are reflected in optimistic reactions to and views on international relationships: the great majority of young people attaches no importance to nationality in making friends. Prejudices arising out of the social status, occupation and financial situation of the family are also disappearing. All this suggests that, by the time they leave school, young people in Yugoslavia display a marked social expansiveness in the matter of friendships. It is a most encouraging sign that at the same time earlier negative social prejudices are becoming less significant and influential. None the less, it must be emphasized that sexual differences have a somewhat more noticeable effect, whereas differences in nationality, material standing, social position and parents' occupation have very little.

The finding that a yearning to offer and accept help is one of the fundamental features of friendship is of great social value. This means that friendship is not simply a matter of having a good time. As many young people have friends outside the school they are attending, such exchanges of assistance are not limited to the immediate surroundings. In addition, the special features of various types of school must also be taken into account.

An analysis of relationships between young people and those nearest to them shows that in this sphere of social relations also social contact is moving along the right lines. Most adolescents feel that they can turn for help to particular persons if they find themselves in difficulties. Regarding the actual choice of person, the investigation suggests that a distinction must be made between friendship and relations with people whom adolescents instinctively trust when faced by serious situations in life. Thus the mother was mentioned in this respect by the greatest number of those questioned followed by friends, father, brothers and sisters, then loved ones, with teachers in the last place. Although pupils are playing a growing part in the life of the school, this certainly does not mean that their teachers are the nearest people to them. This undoubtedly calls for action to bring teachers and pupils much closer together in all aspects of school life.
The investigation of the pupils' respect for those around them, as one aspect of the development of sociability, reveals a hard core made up of those adolescents who show no marked disposition to pay respect. This is mainly the expression of a desire for independence and the fulfilment of one's own personality. However, this is true only of everyday, practical forms of conduct, and does not imply that those pupils who profess to have little respect for others do not have ideals whose example they would like to follow. Similarly, the question of whose example the pupils mould their conduct on is of great educational importance. Although there is a close correlation here, the list of relationships nevertheless differs somewhat from that established for the question of trust (see preceding paragraph). The data analysed show that in this case the influence of others of the same age (their classmates) is far greater than that of other persons in their immediate vicinity. This is true also of those adolescents whose social behaviour is absolutely normal. The significance of such respect for one's classmates is even more striking when it is realized that all the other persons mentioned accounted together for only half the answers. It is especially noteworthy that here too the teachers came at the bottom of the list.

In painting a moral portrait of secondary school pupils, analysis of the qualities of those to whom young people look up is of specific importance. The results obtained are a rich source from which to acquire a more comprehensive and deeper understanding of the basic social and moral outlook and attitudes of contemporary youth. Sincerity and comradeship are valued far above all other qualities.

The social maturing of young people finds its most apparent expression in their mutual relationships. Hence the views of those questioned about good and bad qualities reveal how much the new social relations and the educational influence of the school affect the adoption and acceptance of basic moral standards. It is typical that, although a relatively large number of good qualities are mentioned in the replies, adolescents of both sexes prize most highly just those traits that reflect the basic moral principles of Yugoslav society. Since, here again, sincerity and comradeship stand out as the most significant positive qualities, it may be concluded that these are the most highly valued attributes of man. It is of particular significance that in the evaluation of good qualities there is a high degree of agreement between opinions of boys and those of girls. So far as negative qualities are
concerned, bad traits that bedevil a person's relations with those around him were most frequently condemned. In contrast to the case of good qualities, some bad qualities were mentioned only by boys, others only by girls. This general analysis of good and bad qualities can provide the secondary school with the basis for more precise orientation of its character-forming function.

Bearing in mind that all forms of young people's association contribute to the development of sociability, the pupils taking part in the inquiry were asked how they regarded the long-term influence of youth organizations. Some coincidence between the views of the pupils and those of the headmasters or class leaders is apparent, though the pupils' criticism is rather more severe. The information obtained reveals serious weaknesses in the work of the Yugoslav Federation of Youth, and points to the need for it to adapt its activities to the interests and needs of the younger generation. Certain differences observable in individual types of school support this finding. Where the Federation of Youth takes pains to adapt its activities successfully to the conditions of current development, its influence on upbringing is far more strongly felt. Nor are there grounds for complacency about the enrolment of pupils in specialized youth organizations. This is all the more significant in that those questioned who are members of such organizations judge the latter's contribution to the development of comradeship very favourably. It is interesting to note that more pupils join out-of-school organizations, for the prospects of satisfying the highly differentiated and specialized interests and capabilities of adolescents are far better in such organizations. It is therefore essential that schools, organizations and other social agencies devote far greater attention to the development and enrichment of all forms of association, so as to attract far more young people.

As regards comradely relations in the classroom, the data analysed proved to be satisfactory on the whole, though this form of social behaviour is not sufficiently developed. The striking feature is the significant differences between schools of various types, showing that conditions for encouraging comradely relations are not everywhere identical.

Analysis of the answers received about the attitude of the teachers to pupils shows that in this area too current changes are having a beneficial effect on the development of reciprocal co-operation and understanding and mutual respect.
In their endeavours to shape conscious, free and active personalities, most teachers are making more and more use of the techniques of persuasion, habituation and inculcation. This does not mean that coercion is no longer necessary; but the reasonable and thoughtful teacher can never take compulsion as the initial principle of social and moral character-building, or as his predominant or, indeed, usual working method. All this, no doubt, can be of great significance both for the further development of self-management relations within our schools and for the basic orientation of the training of our teachers.
The document defines the national objectives, strategic goals, main practical achievements and priority projects by sector and lays down a plan of execution for the government. The section on education, considered as one of the priority areas, deals with the main target for 1970/73 based on a programme of concentration and reform.

The policy relating to education and to human resources will be directed towards: (a) the adoption of a philosophy of education which will provide a pattern of the kind of education needed in Brazil, namely a combination of modern humanistic culture and technology, and taking into account the actual economic and social situation in the different regions of the country; (b) the establishment of an integrated school system designed to reduce the gaps between different levels of education and between the conditions under which secondary education is provided (technical instruction on the one hand and general education on the other); (c) the implementation of an integrated policy for education, science and technology aimed at fostering the organic growth of modern technology, and the establishment of specific machinery associating schools, industry and government; (d) the conversion of education into a powerful medium to promote the participation of the people in the development of the country.
Under this programme the Government plans to bring about the following ten major results:

I. Considerably increase the overall expenditure on education (Federal Government, States, municipalities and the private sector), with a view to reaching a total of nearly Cr$ 26,000 million over four years (1970 prices), i.e. an average of Cr$ 6,500 million a year.

II. Introduction of the system of basic education by providing continuity between primary education and the lower stage of secondary education, together with the gradual extension of the latter throughout the country, with a view to providing the type of instruction which will meet the needs of the labour market. Priority will be accorded to the 'Operation Education' project, and to the national programme of work-oriented gínasios (secondary schools).

III. Reform of technical, and above all industrial schools at the secondary level, with the aim of abolishing the present dual system at the lower secondary level under which traditional gínasios exist side by side with technical gínasios. Instruction at the upper secondary level will be the first stage in preparing pupils for work. Pupils will be guaranteed an occupation, through the widespread establishment of integrated colegios, providing not only a modern humanistic education for all pupils, but also all-round technical training offering a choice of careers according to individual interests.

IV. Consolidation of university reform through the implementation of new programmes and projects already approved, with regard to the structure of the universities, methods of teaching and research, teaching staff, and the integration of the university into the development process. The system of regional centres for the third stage of university studies will be established gradually in order to provide the national economy with highly specialized human resources, and the universities with teachers.

V. Expansion of literacy and life-long education programmes; reform of programmes for training the labour force. The objective of the literacy programme is to reduce the number of illiterates in the 15-35-year age-group from 7,000,000 to 3,500,000 between 1970 and 1973.
VI. Adoption of specific measures to implement the programme for expanding elementary and secondary education in the period 1970/1973. The number of pupils enrolled in elementary education will be increased by nearly 30%, rising from a total of 12,780,000 in 1969 to 16,440,000 in 1973, i.e. an additional 3,600,000. The purpose of 'Operation Education' is to achieve, in 1973, an enrolment rate of nearly 80% in the 7-14-year age-group. In 1976, the rate will be 95% in urban areas and 80% in rural areas. In lower secondary education, the increase in the total enrolment figure will be nearly 60% rising from 2,690,000 in 1969 to 4,240,000 in 1973. In upper secondary education the increase will be 95%, from 950,000 in 1969 to 1,500,000 in 1973. In higher education the increase will be 80%, from 320,000 in 1969 to 580,000 in 1973.

VII. Implementation of a policy for the improvement of teaching standards at all three levels of education.

VIII. Introduction of a powerful system for the financing of education, in particular through the National Development Fund, which will comprise CR$ 500 million in 1970/1973 contributed from new sources (exclusive of the "education salary" i.e. the employees' contribution to educational expenditure).

IX. Gradual introduction of sophisticated educational techniques through the use of radio and television; the first stage will be the installation of a basic network followed by an attempt to establish a national educational television network.

X. Introduction of effective methods for associating schools, industry and the government; for example, the programme devised to provide students with practical training courses to be undertaken in certain public or private firms in priority sectors, or the establishment of contracts with universities for the execution of plans relating to micro-regions, or of scientific and technological research projects.

After describing the ten objectives planned, the chapter on education goes on to develop the idea of an educational policy already considered at the beginning, and gives a list of detailed projects together with the resources planned for each.

Abstract prepared by Mrs. Regina Helena Tavares, Centro Brasileiro de Pesquisas Educacionais.
The aim of the Conference on Education in the Modern State, which was held under the patronage of the Prime Minister and the chairmanship of the Minister of Education, was the development of education in the United Arab Republic on a sound, scientific basis. All governmental bodies concerned with educational matters, especially universities and teacher training institutes, participated in it.

The recommendations, grouped under six main headings (economic and financial matters; syllabuses, textbooks, educational activities and methods; teacher training and the improvement of teaching standards; educational administration; services for students), prepare the way for further detailed studies and specific conferences to be convened for the examination of each topic individually.

The preamble sets forth the aims of the Conference and recalls that it was convened in response to the President's call for broadly based, scientifically organized progress, with education as its corner-stone. The aims of the Conference were thus to co-ordinate educational thinking and evolve an integrated approach to the future of education in Egypt, to establish broad guidelines for the construction and organization of schools of the future in Egypt, to undertake studies on...
questions of educational development with the participation of all concerned. To this end, and in order to clarify the aims of the Conference, the main features of the contemporary State affecting education are enumerated: primacy of science, close relationship between science and technology, and between ideology and technology, rapid evolution of society, integrated approach of society, need of all societies to develop on the basis of continuous over-all planning, confirmation of the principles of liberty and democracy, opening towards the outside world.

The recommendations on economic matters included the following: application of "planning programming budgeting" system to the educational service; planning of education within the framework of an over-all manpower programme drawn up in the light of national planning targets; financial and administrative organization and co-ordination of individual efforts; promotion of research on repetition and drop-out and the factors affecting them; assignation of functions on the basis of a job-classification system; strengthening of the statistical, planning and supervisory organs of the Ministry of Education; residential development bodies to be obliged to construct the necessary educational facilities at their own expense and in accordance with the prescribed specifications; exemption of technical equipment and material from custom duties; maximum utilization of Ministry of Education financial resources; efforts to be made to obtain increased funds for capital investment.

With regard to syllabuses, textbooks, educational activities and teaching methods, the Conference made the following recommendations: there should be a global approach to the question of syllabus development, embracing all aspects of the problem (decisions, teaching methods, textbooks, etc.); the development should be a joint endeavour, in which all those concerned — whether in education, public life, production, service occupations or other spheres — would be called upon to participate; educational aims for all levels and types of education should be reviewed; syllabus development suggestions should be tested before being generally introduced; adequate preparations should be made for the implementation in all schools of the new proposals regarding teachers, books and so forth; due attention should be paid to the practical and behavioural aspects of educational development; pupils should be encouraged to learn on their own; teaching methods should be developed with a view to training pupils to think scientifically and developing
their originality and powers of invention; adequate measures should be taken to strengthen religious instruction syllabuses; a plan should be drawn up for co-ordinating the educational activities of the Ministry of Culture and the various information media; the applications of socialism should be taken into account in all curricula and school activities; a survey of the position of schools with regard to teaching aids should be conducted and a plan drawn up for the preparation, production and utilization of up-to-date teaching aids; the necessary manpower for the production of teaching aids must be obtained by strengthening the relevant studies in teacher training colleges and institutes and by training technicians; the department responsible for the administration of teaching aids should be strengthened and a complete closed-circuit television system should be set up; there should be close co-ordination between the general administration of teaching aids, teacher training institutes and colleges, and research and production organizations; plans should be drawn up for supplying schools with the teaching aids they need, and the necessary modifications should be made to classrooms; the compilation and distribution of textbooks should be placed on a sound experimental basis.

A proposed research body would seek to develop examination and performance evaluation techniques in the following ways: by devising standard tests and perfecting the necessary scientific criteria for detecting students' aptitudes; by training teachers in the proper use of these tests and criteria; by analysing the results of examinations, and by advising on all problems connected with examinations; by making a scientific study of evaluation techniques, by defining criteria for promotion from one class or level to the next; by establishing a cumulative record card for every pupil; by obtaining the co-operation of the parents or guardians in evaluating pupils' behaviour; by drawing the attention of parents and public opinion to modern trends in evaluation and guidance; by carrying out a comparative study of pupil evaluation.

In the field of teacher training the recommendations call for a study of the following problems: selection of students for teacher training institutes, motivations and incentives, technical guidance, the training of specialized teachers, evaluation, the role of the teacher, methods and techniques used by training colleges, the factors making for teachers' professional maturity.
The recommendations regarding educational administration call on the Ministry for a speedy re-organization of the administration and the establishment of a technical bureau to deal with questions within the administration, a study of the classification of appointments and increased attention to training activities. They also call for the utilization of those material and human resources that can help to improve the quality of education; for the revision of certain laws and statutes concerning employees, administrative matters and pupil absenteeism; for a return to the system of the full day and the single shift at all levels; for the manpower requirements of schools to be met at the appropriate time; for political organizations and firms to be made responsible for literacy work and adult education; for the strengthening of the organizations responsible for the welfare of children of pre-school age; for observance of the principles of centralized planning and decentralized implementation; for the re-adaption, strengthening and redistribution of authority, with the school as the basic administrative and technical unit in education; and for the public to be given full information and encouraged to co-operate with the administrative organs.

With regard to student services, the Conference recommended that the efforts between the various ministries and other bodies concerned should be co-ordinated and that the services in question should be planned in such a way as to encourage students to exercise personal initiative under the supervision of the appropriate organs. It also recommended that greater attention should be paid to school libraries; that students should be encouraged to take an interest in current affairs; that additional boarding facilities should be created; that parents' councils and student associations should be encouraged to help students overcome their problems of social and psychological adjustment; that students should receive guidance in the use of leisure; that organizations engaged in social and individual welfare work should be supported; that accident insurance schemes for students should be extended; that the number of school health units should be increased; that a system of psychological guidance and advice in schools should be organized and that use should be made of student psychiatric clinics and group therapy techniques; and that research should be carried out on the problem of academic ability and talents.

Abstract prepared by the Educational Documentation and Research Centre, Cairo.
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<td>No.</td>
<td>17</td>
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<tr>
<td>Date of Issue</td>
<td>September 1971</td>
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<tr>
<td>Author</td>
<td>Wizārat al-ta'lim al-ʿālī. Maktab al-wazīr</td>
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<td>Title</td>
<td>Mouakkira bishaʾn al-ṭālāgh bayna wizārat al-ta'lim</td>
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<tr>
<td>Bibliographical data</td>
<td>Cairo. 9 p.</td>
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<tr>
<td>Translation</td>
<td>Ministry of Higher Education. Minister's Office. Memorandum on relations between the Ministry of Higher Education and other Ministries.</td>
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<td>Keywords</td>
<td>United Arab Republic educational administration higher education</td>
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Memorandum submitted to the Council of Ministers, defining the Ministry of Higher Education's relationship with the Ministries of Education, Youth, Scientific Research, Culture, Foreign Affairs, and Wakfs and Al-Ashar, these being the ministries with which it has the closest ties. It also defines its relationship, less direct, with a number of other ministries, namely, Local Administration, Housing, Defence, Industry, Labour, Planning, Finance and Information.

In addition to defining the common areas of activity and the level of co-operation between the Ministry of Higher Education [hereinafter referred to as the Ministry] the memorandum also proposes means to improve the relationships.

Ministry of Education. Supplementary preparation of students joining institutes and colleges of higher education; the training of primary and secondary school teachers; and the organization of research relating to the development and improvement of education. Co-operation is effected through the exchange of representatives between the councils of the two sectors: on the one hand to the teacher training section of the Supreme Council for Universities and the other senior councils for higher education, and on the other to the committees for the development of general education syllabuses, programmes and plans.
Ministry of Youth. Joint participation in the guidance of student association activities; the supervision of students sent on mission abroad; and the provision of ministry sports leaders. Co-operation is effected through the Higher Committee for Youth and the Joint Executive Committee of the two ministries, responsible for the execution of the programme.

Ministry of Foreign Affairs. Cultural agreements with foreign countries; relations with Egyptian and foreign universities; the activities of Unesco in the UAR; and the various Egyptian cultural missions and centres in foreign countries. Co-operation at present is effected through joint committees for cultural affairs; however, the Ministry considers that full co-ordination between the ministries relating to the various United Nations Specialized Agencies (agriculture, health, labour, higher education, etc.) can only be obtained through the establishment of a committee set up by the General Council for Foreign Cultural Relations and Technical Co-operation.

Ministry of Scientific Research. Mainly the scientific research carried out by the teaching staff of universities and higher institutes on the basis of a national research programme drawn up by this ministry in co-operation with representatives of the universities and institutes. However, for this purpose the Ministry considered it would be advisable to establish either a National Council for Scientific Research or a science and technology department in the National Economic Council as provided for in the Constitution (30 March 1968). Research workers from the Ministry of Scientific Research should participate in teaching at the institutes and colleges of the Ministry and facilities should be given to a number of advanced university students to carry out research in the centres of the Ministry of Scientific Research under the joint supervision of instructors in those centres and in the various universities and institutes. In addition, it is considered that the Ministry of Scientific Research should send representatives to the councils of the Ministry and that facilities should be offered to its research assistants to enter for Masters' and Doctors' degrees at universities.

Ministry of Culture. Co-ordination of the work of the various institutes attached to both ministries; publications; theatrical productions; and the activities of the National Commission for Unesco. This is effected through the exchange of professors and teachers and reciprocal participation in the higher councils of both ministries.
Ministry of Wakfs and Al-Azhar. Collaboration between Al-Azhar and other universities, and between Al-Azhar delegates in foreign countries and the cultural centres controlled by the Ministry. This collaboration takes the form of exchange of teaching staff and representation on the various councils concerned.

Ministry of Local Administration. Self-financing of regional universities; provision of provincial housing facilities for students and teachers; provision of medical care for students in provincial hospitals; facilitation of internal communications. All this requires the representation of universities on provincial councils.

Ministry of Housing. The elaboration and implementation of university construction projects in conjunction with the Ministry of Higher Education. For this purpose it is considered necessary that the two ministries should exchange liaison officers.

Ministry of Defense. Matters relating to the military service of students, junior lecturers, lecturers and those selected to be sent on to higher study courses abroad. In view of the Ministry, the prolonged period of military service which recent graduates as well as junior lecturers and lecturers have to undergo prevents them from continuing and completing their higher studies and therefore from obtaining rapid promotion to senior posts. With regard to those selected for study abroad, the Ministry is endeavouring to take steps to secure their exemption from the regulations governing the direction of labour and considers that a similar exemption should apply to those selected for higher studies within the country. It also considers that the military service of citizens living abroad should be postponed until they reach the age of 35, and favours the creation of a joint committee of the two ministries to establish permanent rules relating to military service in such cases.

Ministry of Industry. Planning of higher technical education; the consolidation of the resources of higher institutes and the training of their students; and the creation of institutes for the preparation of technicians in certain industrial corporations. The Ministry considers it necessary that the Ministry of Industry should be represented on the advisory committees and higher councils of technical institutes.
Ministry of Labour (Central Training Authority). Planning the training of the skilled workmen, technicians and specialists needed in higher education, and also in connexion with the Authority's students in foreign countries. The Authority is represented on the Higher Committee for study abroad.

Ministries of Planning and Finance. On questions of financing through mutual representatives on the supreme councils and committees of universities and institutes.

Ministry of Information. In the field of educational broadcasts and programmes directed to Egyptian students abroad and in the preparation of information handouts. Joint committees of the two ministries are necessary in both these spheres.
This document examines the general characteristics of education in the modern world with special reference to: the utilisation and application of the results of contemporary science; planning for the future; education as a continuing process; the individual and the struggle between rival political and social systems; and the complementarity of the different national sectors in promoting and ensuring an equitable distribution of educational services.

Legislation in the UAR insists on the principle of unimpeded access to education. There has been an impressive expansion in the provision of educational services, as instanced by the quantitative development of education, the decision to abolish all fees and the efforts made to reform the educational structure and eliminate repetition of classes. These improvements, however, are not sufficient to eliminate the obstacles which prevent certain categories of people (e.g. the children of workers) in the UAR, as in most parts of the world, from continuing their education.

Primary education at present is based on the principle that any child who has reached compulsory school age is entitled to be accepted for enrolment. The proportion of children accepted in 1969/70 was 78%, and it is planned to reach 90% by 1974/75. In pre-secondary (preparatory) schools, the proportion of pupils
accepted was 45% of those registered in sixth-year primary in 1969/70, and it is expected to rise to 50% by the end of the third five-year plan, this being the total proportion of pupils who are expected to pass their primary school certificate. At secondary level, the proportion of pupils accepted was 40% of the total registered in third-year pre-secondary; it is expected that this proportion will rise to approximately 50% by 1974/75. Thus the proportion of children of compulsory school age who reach the beginning of the secondary level currently averages 12% and is planned to average 20% at the end of the third five-year plan.

An examination of these figures from the point of view of equality of opportunity obtaining in different regions and among different groups of the population reveals that there were very wide discrepancies in the different governorates.

As regards the gap between the rural and urban sectors, the survey established that in 1967 the proportion of pupils enrolled in primary schools in rural areas was 3.34% of the population, while in urban areas it was 14.81%. At pre-secondary school level, the corresponding figures were 0.79% and 4.9% respectively, showing the imbalance of educational services as between the rural and urban sectors.

Furthermore, the following broad picture of the social and economic background of the pupils' families emerged: the proportion of children of agricultural workers - especially hired labourers - is higher in primary and technical secondary schools; the proportion of landowners among the parents rises with the level of education. The same is true of the children of skilled industrial workers. Technical secondary schools have a high proportion of children of agricultural (i.e. hired) and industrial workers and clerks, and hardly any children of big landowners, merchants or directors.

This occurs in spite of the system whereby admittance to the various levels is based on the total marks obtained by pupils at the general certificate examinations. It is clearly necessary that planners should not lose sight of national political and social objectives, particularly those relating to the principle of equality of opportunity and the elimination of class distinctions. Perhaps attention at the primary school level to the provision of daily meals and the improvement of curricula and structures to bring them more into line with genuine educational requirements and thereby enable farm-workers to appreciate the value of education for their
children, combined with conscientious implementation of the law on compulsory education, is the best way of attracting the children of farm-workers to primary schools. Other suitable ways of encouraging the education of working-class children might include the following: the introduction of some form of aptitude-testing other than school examinations, which are affected by the family's socio-economic level; the creation of more boarding schools for gifted children and the establishment of a system of study grants; provision of more occupational opportunities for school leavers, particularly in technical education; and the creation of some type of education suited to the needs of workers and peasants who have not had the opportunity to receive any at all.
This memorandum outlines the proposals submitted on 23 and 24 June and 30 July 1969 to the Higher Committee for Study Abroad; they were unanimously approved by the Committee, and instructions for their implementation were drawn up by a commission comprising the Under-Secretaries of State for Youth, National Guidance, Culture, Tourism, Higher Education and the Socialist Union.

The problems facing students who study abroad, both before their departure and on their return, may be summarized thus: length of time involved in travel formalities; failure of countries, bodies or institutions awarding scholarships to offer facilities for study in the desired subject; lack of familiarity with the language of the host country; disparity of financial treatment; travelling facilities for wives; desire of students to complete their post-graduate studies abroad; reluctance of some students to return home. The main problems confronting students on their return from abroad are the inadequacy of university laboratory facilities and documentation services, and disparity of financial treatment.

These problems should be tackled by the establishment of proper supervision for students proceeding abroad, who should be introduced before their departure to the linguistic, national, social and educational aspects...
of their mission in two four-month briefing sessions to be held each year. The language courses would be held in a cultural centre belonging to the host country or in a language institute. National preparation should take the form of a ten-day course of lectures and visits designed to acquaint the student with the country's most significant achievements. For social preparation, it is proposed that students be divided into groups according to the prospective host country and that each group should attend lectures on the habits and customs of that country. Educational preparation should be effected through the examination of each student's qualifications with a view to determining the studies which should be undertaken in specialized colleges before going abroad.

The memorandum also calls for the national, educational and social supervision of students while abroad. The aim of national supervision is to preserve the student's links with his homeland; this can be achieved through the use of information media, periodical repatriation, and participation in the activities of Egyptian student associations and cultural centres abroad. The suggestions put forward with regard to the utilization of information media for this purpose include developing the Arab Youth Gazette, supplying students in foreign countries with newspapers and periodicals, keeping the material thus supplied under review and obtaining the opinion of students abroad and those returning home with regard to it, and expanding radio programmes for students. It is further suggested that students should be allowed one or more home visits at the Government's expense during their time abroad.

Egyptian student associations were established in 1963 in every country where there was a number of students, in order to provide a unifying element and a link with home. These associations' status should be re-examined from time to time with a view to their development and their supervision should be entrusted to a single department within the Ministry of Higher Education, whose efforts would be co-ordinated with those of the various youth organizations concerned. The necessary funds should be obtained for these associations of students abroad, which should be completely separate from the General Union of Students in the United Arab Republic. Students should be under the supervision of Egyptian cultural centres abroad, care being taken that the director of such a centre should be thoroughly proficient in the language of the host country, that his wife should be of Arabic nationality, and that he should possess high academic qualifications.
With regard to the social aspect of supervision, the memorandum recommends that students' allowances should be in keeping with the cost of living in the host country, that wives be given the opportunity of accompanying their husbands and that cultural centres and students' associations provide a welcoming service for new arrivals.

As regards education, students should be given every opportunity to learn more about their own country should they so desire.

It is essential to find a solution to all the problems facing students on their return home, in such matters as accommodation, employment and salaries, and research facilities, including opportunities to visit places of scientific interest and participate in congresses held abroad in order to learn about conditions in foreign countries and the methods they adopt to solve their problems.

There is a steady increase in the number of students who refuse to return home, particularly among those wishing to remain abroad in order to obtain higher degrees, especially in medicine and engineering.

Their attitude may be attributed to their superior educational level, the wider opportunities for research and well-paid employment available to them abroad, the possibility of marrying foreigners, the shortcomings of student associations in foreign countries, and the fact that practically no supervision is exercised over them by the Egyptian authorities. Moreover, some of them, on their return, cannot find any employment in keeping with their qualifications and field of specialization, and there is nothing to prevent them from emigrating. It should be added that not all of them were suitable choices for study abroad in the first place.

In order to remedy this situation, students who are unwilling to return home should be usefully employed abroad by the Egyptian Government on work related to their field of specialization; Unesco should be invited to draw up an international agreement whereby such students would not be encouraged to remain abroad. Each case should be examined separately so that students reluctant to return home may be given assistance in finding accommodation and employment in Egypt. A liaison network directed by the appropriate authorities should be established for the purpose of keeping students in touch with their homeland; those wishing to remain abroad should be
allowed to return for visits with a guaranteed right of re-
exit. Cultural agreements should contain a provision that
students abroad shall not be allowed to settle permanently
in the host country.
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Description of the UAR Ministry of Education's efforts to secure the implementation of the national education policy. It reviews the trends and events of 1970 and refers to the plans that were drawn up during that year for solving educational problems, enrolling all children of school age, recruiting additional teaching personnel and organizing teacher training courses.

In 1970/71, all children of compulsory school age were admitted to primary schools. This required the construction of a number of new primary schools in villages and outlying areas and the opening of a large number of single-class schools, in addition to the efforts needed to combat absenteeism and drop-out. The number of pre-secondary schools was also increased, especially in rural areas, in order to provide sufficient places for all pupils obtaining primary-school leaving certificates. As a result, about 85% of these were absorbed, the remainder being enrolled in private schools and classes established by voluntary organizations. At secondary level, there was also an increase in the number of schools, and care was taken to maintain a balance between enrolments in general and in technical secondary schools. In 1970/71, the general/technical intake ratio was roughly 49.7 : 50.3, as compared with 65.8 : 34.2 in 1965/66.
Additional teaching staff appointed during the year in question numbered 10,185, not counting teachers appointed to technical schools. The Ministry of Education did its best to ensure that all those appointed were graduates of teacher training institutes or held advanced qualifications of a kind suitable for teaching; besides this, it organized a number of in-service teacher training courses. It also adopted a number of measures designed to promote teachers' social and psychological welfare: appointing new teachers, as far as possible, to areas near their homes, establishing equitable promotion and transfer regulations, making accommodation available in outlying areas and provinces at nominal rents, carrying out a study of projects for training teachers and raising their standard, remedying shortages of certain categories of teachers.

The introduction of modern mathematics at secondary level, already embarked on in 1969/70, was taken a stage further, due attention being given to the preparation of the necessary syllabuses and textbooks and the training of teachers in the appropriate techniques. Tests were completed on a modern science syllabus for pre-secondary schools, and it was also decided to introduce a new syllabus and system of evaluation in primary schools. Two committees were set up, one to study school textbook improvement and the resultant new teaching methods, and another to study evaluation and examination techniques.

The Ministry of Education also prepared the draft of a new plan for developing education in accordance with the requirements of contemporary society and modern educational thinking. The measures suggested include: re-examination of the educational ladder, with a study on extending the period of compulsory education to include the eight-year primary school and the complete secondary school; enhancing the internal efficiency of the educational system by the elimination of drop-out and wastage; compliance with international standards as regards teaching methods and teacher training; efforts to be directed towards providing schools of the future, in which students would be prepared for careers corresponding to their abilities; development of syllabuses in accordance with the needs of the community and the demands of economic and social development; development of the examination system in the light of contemporary educational trends; a long-term school building programme with a re-examination of the question of class density in the light of the expansion of education; efforts to overcome shortcomings in teacher training.
and improve teaching standards. Special emphasis is laid on technical education, in terms of both quality and quantity, with a view to meeting the requirements of industry, commerce and agriculture and achieving the necessary co-ordination between economic and social development. In this latter connexion, the plan calls for the following: construction of purpose-built premises containing the most up-to-date equipment; revision of syllabuses and textbooks with a view to raising the schools' cultural level while emphasizing the practical aspects of education; linking of technical schools to the relevant production sectors; application of the five-year system for certain technical subjects; utilization of technical schools to enable unskilled workers to qualify as skilled workers and technicians.

In order to keep abreast of world scientific and technological developments, the Ministry of Education examined the question of education in the modern State and "the school of the future" in a number of local and specialized seminars and meetings culminating in a conference on "Education in the Modern State", which took place from 20 to 23 February 1971 (see CEAS No. 64).

In the field of educational reform the Ministry of Education is at present concentrating on four problems:

(a) implementation of two school programmes, a short-term one designed to provide the premises needed to replace unsuitable buildings and to absorb the increasing number of new pupils, and a long-term programme designed to reduce the number of pupils per class;

(b) the supply of apparatus and equipment to schools of all types and levels in order to strengthen the practical side of their work and so enhance the efficiency of the education system, promoting scientific and technological development;

(c) establishment of a detailed plan for the recruitment, preparation and training of the teaching staff needed to meet the requirements of the projected expansion in the number of schools, classes and pupils;

(d) a study is being made of the manpower requirements of the various production and service sectors in terms of training, specialization level and timing, in order that technical schools may be in a position to meet these demands. In this connexion the Ministry of Education has put
forward a number of concrete suggestions: preparation of a long-term plan for economic and social development, specifying requirements in terms of manpower, specializations and levels over the next few years; establishment of a research centre to study manpower planning and recruitment; creation of wider opportunities for graduates, in particular those from technical schools, through the establishment of labour-intensive projects.
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The terms of reference for the panel of inquiry convened in 1967 were to report on the establishing of an Education Commission to control the employment of primary and secondary school teachers, lecturers at technical colleges, teacher training colleges and tertiary institutes and associated staffs of the Departments of Education and Technical Education and, in the event of a favourable finding, to recommend its constitution and functions. Under the existing administrative system, policy is determined by the Minister for Education. However, all the staff of the education department is controlled by the Public Service Board which maintains and exercises a general supervisory function regarding recruitment, appointment and employment of teachers, staffing and re-classification of schools and the organization of schools and departments within schools.

The panel found that it would not be possible to devise an Education Commission which would be acceptable to all parties supporting a commission, nor did any one suggestion seem an improvement on the present system. It was considered that — in order
to fulfil the objectives of better staff management relations, eliminate unnecessary controls, and maintain strong enlightened leadership — primary and secondary education would best be served by separating the Public Service Board from the teaching service, increasing the authority of the Director-General of Education in his control of the teaching service, and establishing an influential advisory body. Teachers and educational staff up to an including the level of area director should be excluded from the provisions of the Public Service Act.

The Director-General of Education should have authority, subject to the control and direction of the Minister for Education and Science, to appoint teachers and other educational staff up to the aforesaid level, to determine their promotions, transfers, and qualification standards and to maintain discipline, which includes the power of dismissal. He should also determine the classification of schools, staffing establishments for teachers and other educational staff and the system for classifying and grading such staff, maintain efficiency and economy in the teaching service, and make regulations concerning these matters, and preserve the rights of staff in superannuation, long service leave and rights to appeal to the Crown Employees Appeal Board. The Public Service Board will, in consultation with, and on behalf of, the Director-General of Education, determine salaries, fees, allowances and conditions of employment for the various classifications and grades of educational staff, and enter into an agreement with any organization representing those staff with regard to salaries, fees and allowances.

An Education Advisory Commission should be set up to advise the Director-General of Education on matters relating to primary and secondary education. The Commission should be composed of a primary school teacher, a secondary school teacher and an inspector of schools (each elected by the body of their professional colleagues), two members appointed by the Minister for Education and Science, one member appointed by the Director-General of Education.
from his senior staff and a chairman who will be either the Director-General of Education or a departmental colleague nominated by him. Each member will serve on a part-time basis and (apart from the Director-General of Education) should be appointed for four years with eligibility for re-appointment or re-election. Members of the Commission would serve and vote as individuals.

It was recommended that the Public Service Board continue its role as a control and advisory authority in relation to the administrative functions and general working of the Department because it was considered necessary that the Education Service operate within the framework of Government and co-operate with other Departments. Professional administrative and general divisions officers should not be separated from the Public Service Board as there is greater flexibility if movement between departments is maintained. It was considered that technical education could progress satisfactorily for some time under the present system although some increase in the delegation of authority to the Department seemed advisable.
The terms of reference for the committee appointed by the Minister for External Territories in 1968 were to advise on possible changes in the present relationships between the Department of Education, the voluntary educational agencies and the local government councils in the Territory of Papua and New Guinea.

The committee's recommendations are made with the intention of achieving higher standards of education, a truly professional body of teachers, a more effective use of the limited resources available for education in the Territory, and a system of education which will be workable after self-government is achieved, will strengthen the sense of national unity and, subject to the right of parents to choose as far as possible the school their children will attend, will safeguard the identity of schools conducted by all approved voluntary agencies. The missions and churches involved in education are mainly village or regional-based and there is a need to involve them at this level in the control of schools and the growing influence on national education policy exercised by local government councils.
There are at present in the Territory 51 separate voluntary educational authorities responsible for 132,100 primary pupils, 6,700 high school pupils, 130 technical school pupils and 1,000 students at 12 teacher training colleges. The Administration has an enrolment of 74,700 primary school pupils, 1,140 technical school pupils and 690 students in 3 teacher training colleges. The Administration has extensive powers to regulate standards in schools, the certification of graduates from teacher training colleges and the registration of teachers in voluntary agency schools. The syllabus in all schools is the same as is the standard of entry to high school following seven years of primary school; all tuition is in English. The Administration provides financial assistance to voluntary agencies in the form of grants-in-aid based on the qualifications of teachers, per capita grants for students, classroom materials and financial assistance for building.

Due both to lack of finance and the expansionist policy of the missions which has led to a higher proportion of village schools, voluntary agency schools tend to have more schools which finish at the fourth year of primary education, more drop-outs and a larger proportion of repeaters. Only a small proportion of children from these schools continue to secondary education. To improve the standards of education, provide a more adequate system of financial assistance and co-ordinate the organization of educational institutions it is recommended that a Territory Education System and a Territory Teaching Service be established. Inclusion in the system will depend on: the number of posts reserved in schools; the speed with which schools will be 'blocked up' to a higher form level; the method of appointing, promoting and dismissing teachers; the willingness to admit pupils irrespective of religious affiliations; excuse from doctrinal instruction any child whose parents demand it, and if requested permit suitable arrangements for children of other denominations. Primary, high or technical schools, or teacher training colleges which cannot or do not wish to meet the conditions will be outside the system, known as the Teritary and Secondary Financial Scheme.
tance from the Administration, however, they should meet prescribed staffing and other requirements if their students are to be eligible for officially recognized qualifications.

Administration grants to voluntary agency schools will be paid only to schools within the Territory Education System and will take the form of payment of salary to teachers or grants-in-aid, the scale of payment being dependent on the standard of the school and the amount of control the Administration has over teachers. All teachers at schools within the Territory Education System will be included in the Territory Teaching Service and individual status will depend on the category of school attended. Teachers at schools which enjoy full membership may elect to be responsible to the controlling body of the school rather than the Administration and will then receive a salary allowance from the Administration of one-half of the salary paid to an equivalent Administration teacher or a teacher in full member schools. A Teaching Service Commission should be established to be the employing authority of all teachers in the Territory Teaching Service, and to have authority over establishments for the various types of educational institutions.

With regard to the organization of the administrative structure, local government councils representing the Administration, the community and voluntary agencies should be responsible for planning, erecting and maintaining of Administration primary schools; entering into agreement with voluntary agencies to provide assistance with building costs; and advising the district education boards on teacher needs in primary schools. District education boards should be developed from district education committees and consist of representatives of local government councils, Administration and voluntary agencies, teacher organizations and the community. They should have the function of drawing up plans for the development of education in the district for the Territory Education Board, supervise the implementation of approved plans for primary schools in the district, allocate, promote or transfer teachers, control...
enrolments, and, in high and technical schools, select entrants. A Territory Education Board representing all educational interests, local government councils, teacher organizations and business interests will advise the Administration Minister on the overall planning of education in the Territory. The Board should set up a Teacher Education Committee to advise on standards, courses, staff, location and co-ordination of the work of teacher education institutions.

The Committee estimates that, beginning in 1970, the cost of phasing-in its proposals will be $6,645,000, over the Commonwealth Government's announced five-year plan for the Territory.
The terms of reference for the Commission were to report on: the functioning of the apprenticeship system in New South Wales including considerations of whether skilled tradesmen were being trained in sufficient numbers; the functioning of the apprenticeship councils constituted under the Industrial Arbitration Act 1940-1964; the adequacy of the system of training apprentices both on the job and through the Department of Technical Education; the effects of recent changes in the secondary school curriculum on supply of apprentices. In the light of findings, measures were to be recommended for the improvement of the functioning of the apprenticeship system and the supply of skilled tradesmen.

The Commission found that while apprenticeship provided the best method of producing skilled tradesmen there had been a shortage for some years in certain trades and shortages were likely to continue. The majority of young men in the age groups from which apprentices are normally taken, i.e. 15-19 years have little difficulty in obtaining apprenticeships. The problem is therefore to increase the number of apprenticeships and
to ensure sufficient applicants. To increase the number of apprenticeships it is recommended that the cost to small employers of training apprentices be reduced by financial incentives provided by governments. These could include deductions for cost of buildings and depreciation of plant connected with training, special deductions for wages paid to apprentices or exemption of pay-roll tax on apprentices' wages. It was found that certain government departments and statutory authorities train an insufficient number of apprentices compared with private industry. The Public Service Board of New South Wales should be charged by statute with the overall responsibility for determining the number of apprentices to be trained by each ministerial department and each Crown corporation. One or more government training centres should be established to provide facilities for trade training. Apprenticeship to an industrial union or group of employers should be given statutory recognition, and apprenticeship supervisors should be appointed to assist in the promotion of apprentices to these groups. Procedures should be established by statute providing for the recognition for civil purposes of trade training undertaken pursuant to apprenticeship or adult training schemes in the armed services.

It is expected that the proportion of the male population aged 15-19 in employment will decline by as much as 10% in the next decade owing to the increasing proportion staying longer at school or undertaking alternative studies. In order to increase the number of apprentices it is recommended that apprenticeships should be made available to older youths and that provision be made within the secondary course for fourth form students to study a combination of academic and vocational subjects. No restriction on age should prevent any person who has attained school leaving age from commencing an apprenticeship. Minimum educational requirements should not be mandatory and in any case should not exceed satisfactory completion of three years of secondary schooling. There will be an increase of women entering the working force and the entry of women into apprenticeships should be encouraged.
except where the nature of the work is unsuitable. Equal pay should be provided.

The control of apprenticeship in the state is at present vested in more than 100 apprenticeship councils, each of which has the function of controlling and directing the conditions of apprenticeship in its particular industry in all respects, with the Industrial Commission as final arbiter. The councils should be retained and changes relating to the administrative approval of apprentices and the removal of most of the disciplinary functions of councils to the apprenticeship commissioner should be implemented to allow the councils more time to keep under review the supply and demand of apprentices and the adequacy of training. The councils should report biennially to a body which should be established to be known as the New South Wales Apprenticeship Advisory Council. This council should consist of a Director of Apprenticeship (a permanent officer of the Public Service) as chairman, the Director of Education or his nominee, the Director of Technical Education or his nominee, and part-time representatives of employers or employees. The Advisory Council would conduct research, keep under review all aspects of the system and standards of training, and assist employers to improve the quality of their training.

With regard to the conduct and terms of apprenticeship it is recommended that the maximum period of apprenticeship be restricted to four years except in special cases agreed to by the Industrial Commission. Remissions to the standard term could be granted on satisfactory progress. The practice of making contracts of apprenticeship by indenture should be continued. Apprenticeship councils should retain the powers they now possess to determine the occupations for which apprenticeship is to be prescribed but original jurisdiction should also be conferred on the Industrial Commission.

It is recommended that the Department of Technical Education should have an integral part in the apprenticeship system and maintain the closest co-operation with state apprenticeship systems.
Trial block-release courses should be conducted in courses where emphasis is on practical skills — this would assist students in country areas where opportunities are restricted. The maximum length of trade courses should be three years and should not make provision for study in advanced topics.

The report also contains tables of statutes, cases and awards.
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| Author | Commonwealth Committee of Inquiry into Academic Awards in Advanced Education Report of the ... |
| Title | | |

| Translation | | |
| Keywords | Australia tertiary education advanced education colleges academic awards accrediting body |

Colleges of advanced education are designated as institutions other than universities or teachers colleges whose courses require as a standard of entry the satisfactory completion of full secondary schooling and provide on completion a standard of education at diploma level. Certain courses commence at a level of one year lower than this. There are variations in the naming of the courses in the various states and variations in the entry qualifications and duration of courses bearing the same title. In July 1968, on the recommendation of the Commonwealth Advisory Committee on Advanced Education, the Minister for Education and Science appointed a committee to inquire into and make recommendations on: the desirability of conformity in nomenclature for awards in colleges of advanced education and, if considered desirable, the steps appropriate to achieve this conformity; the criteria which should be applied to the assessment of courses designed to qualify students for awards of various levels; the nomenclature to be used for awards; the nature and modus operandi of a possible body to advise on comparability of standards in awards.
The committee recommended that a common pattern of nomenclature of awards be instituted in colleges of advanced education throughout Australian States and the Australian Capital Territory and that the co-operation of the states and the councils of colleges be invited in developing a scheme on a national basis. With regard to the classification of courses the committee considered four main features: the amount of knowledge to be imparted, the depth of study of the subjects involved — one indicator being the number of years of study of the subject — the level of attainment on entry to the course, and the stage reached on completion of the course. The committee established the following classification of types of course and recommended the nomenclature of suitable awards.

Undergraduate studies. Category A would include courses which pursue one or more major subjects over a period of not less than three years supported by other relevant subjects, and follow the satisfactory completion of secondary education. The academic award to be given on satisfactory completion of a course within this category to be bachelor's degree the nomenclature to be Bachelor of Technology, B.Tech. (abbreviation for disciplinary area in brackets) other initial names being Bachelor of Applied Science, B.App.Sc. (...), Bachelor of Business Studies B.Bus.S. (...), with other titles introduced as necessary. In the field of liberal studies, Bachelor of Liberal Studies, B.Lib.S. (...) with the area in brackets as suggested. Category B1 would include courses which may lead to professional standing but differ from courses in Category A by placing more emphasis on the applications of the discipline with less depth in the study. In other cases the general balance between theory and practice may be similar but intellectual effort less than for Category A. A typical Category B1 course is not less than three years' duration after completion of secondary education and pursues one or more major subjects for at least two years, together with related subjects, the majority of subjects being concerned with the application of knowledge. It is recommended that the award given for a course falling within this category be an advanced diploma with the name and abbreviation.
being Advanced Diploma in ..., Adv. Dip., with the specific disciplinary area abbreviated where relevant. Category B2 would include courses with limited objectives on a sub-professional level. The typical course may have a somewhat lower standard of entry than would be required for the above courses, but not inconsistent with the satisfactory completion of secondary education, and will be two years' full-time study. The academic award given for the satisfactory completion of a course in this category shall be a diploma, the name and abbreviation being Diploma in ..., Dip. ..., specific disciplinary area being given.

Higher studies. Category C1 will include courses of one year's duration, full-time, following completion of appropriate full-time tertiary courses of not less than three years' duration and will provide either additional studies in some branch of a discipline or deal at a high level with a new subject not normally related in a first course. The academic award given for the course will be a diploma, and the name and abbreviations will be Diploma in ..., Dip. .... Category C2 will include courses designed to extend a first course in advanced education. It will normally be of one year's duration following completion of an appropriate course in a college of not less than three years' duration and is designed to provide an extension in depth and breadth of the first course. The nomenclature has not been decided upon. Category D will include courses consisting of two years' study on a full-time basis following completion of a tertiary course in a relevant field; it may also consist of one year's full-time study following a four-year tertiary course, and will admit students from a college of advanced education or a university. It will provide studies in depth or breadth or both in a significant part of a discipline at a high level and consist for the main part of formal studies and project work. The academic award should be a master's degree and the nomenclature be Master of Technology, M.Tech. (abbreviation for disciplinary area), Master of Applied Science, M.App.Sc. (...), Master of Business Studies, M.Bus. (...), and other titles be introduced as necessary.
The committee recommended that an independent national body, designated the "Australian Council for Accreditation of Awards in Advanced Education", be set up to decide on which courses should be included in specific categories, keep a register of awards, periodically assess categories and awards, undertake research and provide information in connexion with awards and maintain liaison with governments or appropriate authorities in each state designated as having responsibility for the co-ordination of matters relating to awards and with industry, professional institutions, universities in Australia and accrediting agencies overseas. The council should be responsible to the Commonwealth Minister for Education and Science and associated through some of its terms of reference with the Commonwealth Advisory Committee on Advanced Education. Panels of assessors should be appointed as required to examine requests for accreditation of particular awards. These panels would report to part-time committees in principal educational areas, which in turn would report to the council.
The terms of reference for the inquiry were:

to advise on salaries of lecturer and senior lecturer in colleges of advanced education having regard to present levels of academic and professional salaries in Australia, with a view to such advice being used by the Commonwealth Advisory Committee on Advanced Education as the basis for recommending grants for colleges of advanced education.

The report initially classifies colleges into two groups, institutes of technology or colleges embracing a number of disciplines — called 'institutes' in the report — and colleges catering for a single discipline, and describes the courses, salary range and expected duties of lecturing staff within each institute. It then makes the following observations regarding the role of lecturing staff in institutes: Lecturing staff should be encouraged to move between institutes in Australia in the course of their careers; staff interchanges between the institutes and commerce and industry should be encouraged; the experience and outlook of staff should be national and at best international with relationships developed between each institute and an institute in a highly developed country and one in a developing country.
Because of differences of substance and terminology between institutes in the classification of lecturing staff, the committee defines its understanding of the terms 'lecturer' and 'senior lecturer' by outlining what institutes may expect of lecturing staff and what they may expect in return. The report outlines the teaching duties of lecturing staff and points to the need of staff to participate in professional organizations, make and maintain contact with commerce and industry and, as a result, develop abilities which will allow them to attract consulting work. They should be sensitive to the present needs of industry and commerce and be able to provide the requisite training and to develop qualities in students which will allow them to respond to change. In most disciplines the lecturer should have on appointment an appropriate period of professional experience (at least 5 years) after completion of a first degree, or a reduced period of experience plus further approved study. The report recommends that a first appointment should be subject to a probationary period of one year with advancement related to progress. The engagement should be terminable by notice of not less than 6 months. The question of defined barriers in salary ranges should be determined by management.

In return lecturing staff may expect a policy from the institute which allows them to continue with their own studies, to participate in the cultural life of their community and professional societies, and encourages them to seek consulting work either as a part-time or full-time assignment. The progress of a satisfactory lecturer should not cease at the top of his scale simply because the establishment of the institute provides for a certain number of senior lecturer positions fixed by reference to administrative duties.

Since lecturing staffs are not homogeneous between institutes the committee does not recommend the immediate point-to-point transfer of staff to corresponding points on a new scale. Where lecturers have the qualifications, experience and quality referred to above, they should receive salaries equal to those paid in universities.
Placement should be made after review of the staff by management, no difference being made with regard to sex. Where lecturers fall below this standard, lower salaries are justified. The committee recognizes the existence of special difficulties associated with isolated institutes but considers that they could be overcome, when possible, by:

- not appointing staff at a stage in their careers where further study was necessary;
- providing opportunities for post-graduate study and participation in the activities of professional bodies;
- improvement in library facilities;
- and assistance with removal and accommodation. No special allowance was therefore recommended.

With regard to colleges where a single discipline is taught, the committee recommends that the management should assess the nature of the courses being conducted and expected to be introduced and the type of academic staff necessary for such courses. Where the requirements of the post are appropriate for the appointment of lecturing staff of the qualifications, experience and quality referred to above, placement on the current university scales is justified; if the requirements are lower, remuneration should be below that level. The problem is one of establishments rather than salary scales.

The above recommendations were made on the basis of the expectation that the similarity of duties of lecturing staff in fully-developed institutes will produce a broad correspondence in the number of weeks duty performed. The report includes tables of relationships between salaries for lecturers and senior lecturers in the various institutes and in the universities.
The terms of reference for the Committee appointed by the Minister for Education in 1967 were to investigate developments elsewhere, assess the needs of Western Australia and, in due course, report on the future organization, structure and courses required to meet these needs, and to make recommendations.

In Western Australia, secondary education is offered over a period of 5 years following 7 years of primary education, the age of entry to secondary schools being 12+. Government secondary schools are non-selective, co-educational, comprehensive district schools with a policy of chronological progression for students. The normal organizational pattern for instruction purposes is for students to be grouped according to general ability or streamed into classes each of which follows a common course although courses vary among classes after the first year of secondary education. Public examinations are set at two stages, the Junior Examination at the end of the third year, and the Leaving Examination at the end of the fifth year. University matriculation is dependent on passing a certain number and combination of subjects in...
the Leaving Examination. The High School Certificate is provided as an internal examination at junior level moderated by officers of the education department for students of lower ability.

Since external examinations act as a restraint to proper curriculum development and are an unreliable instrument of evaluation they should be replaced, the Junior in 1972 and the Leaving in 1974, by internal school assessments. A board to be known as the Board of Secondary Education should be established to exercise a general overview of the secondary curriculum and to be responsible for the award of certificates of secondary education based on internal school assessments. The board should provide standardized tests and appoint moderators to ensure comparability of standards among schools. It should discuss with authorities responsible for tertiary institutions to establish satisfactory entrance requirements.

By removing external examinations secondary schools will be free to concentrate on the broad aims of education directed towards the promotion of each student's intellectual development, integration into society, physical and mental health, economic competence, emotional and spiritual growth and in some cases the supplementation of the inadequate and perhaps detrimental influences of poor homes and environments. All students should be encouraged to obtain as much education as possible, both for the benefit of the individual and society, culturally and economically.

The principles on which secondary courses should be based include the necessity for them to build on and consolidate primary school courses, be differentiated according to student ability, emphasize the understanding and use of knowledge, involve students' interest and foster creativity by allowing some independence and originality. To provide a guide for teachers, the objectives for each student should be formulated and stated in behavioural terms and evaluation of students should be made in terms of all these objectives. A broad general education should be provided in which English, mathematics, science, social studies...
and physical education form the core with other subjects available on an elective basis. Religious education should be conducted by church authorities in first form only, thereafter it should be an optional subject taught by specialist teachers. The practice of streaming students should be replaced by a multi-level approach for the core subjects and a unit progress approach to other subjects. Cross-setting and group teaching will facilitate the provision of such differential instruction. Special provision should be made for gifted children as well as handicapped children and those with handicaps in specific subject areas. Operational decisions such as the grouping or course placement of students should be made on their records of achievement and these decisions should be flexible.

The policy of chronological progression through primary and into secondary school should be continued but acceleration as well as retardation should be allowed. The age of transfer from primary to secondary school should not be changed but more attention should be paid to the process of transition with gradual changes in curriculum and teaching procedures. Students should not be required to spend a sixth year in secondary school in order to matriculate but provision should be made for those who require it.

As a result of the above changes the teacher's role will be to structure learning situations and guide learning activities. He will be able to specialize more in relation to the subject he teaches but will require a better understanding of the nature of adolescence and the process of learning. The implications of the report for the pre-service and in-service education of teachers should be studied by the relevant authorities.

Appendices contain information about the school system of Western Australia, courses, examination results, a statement on adolescence and the mental and learning abilities of the school child.

Abstract prepared by the Australian Council for Educational Research.
A National Education Conference is arranged every two years by the Ministry of Education and Culture. The IVth Conference, held in São Paulo 22-28 June 1968, had as its theme the second cycle of secondary education.

On the aims and problems of the second cycle of secondary education the conference concluded that it is designed to provide general culture and vocational training and, in addition, a propaedeutic course for university; the general education element, predominant in the first phase of the second cycle, needs to be re-oriented as regards the science subjects to provide a technical and vocational training; the curricula for vocational training should provide as much in-service training as is practicable. In the second cycle technical schools it is desirable to introduce advanced training courses rounded off by cultural disciplines. These courses will be of variable length and will need to strike a balance between scholastic work and in-service training. The curricula and duration of the advanced training courses must be sufficiently flexible to afford young people the best educational opportunities corresponding to their tastes,
sociological and educational reasons, experiments in the concentration and integration of secondary level curricula should be encouraged. Within five years the second cycle facilities need to be in a position to absorb not less than 30% or the related age group. The period of compulsory schooling should be continuous. To ensure educational and vocational diversification, guidance services are necessary to spot aptitudes in the first cycle and to provide vocational counselling in the second cycle.

The shortage of teachers and the inadequacy of the establishments for training them necessitates the adoption and expansion of facilities for teacher training notably in university faculties of education or in schools of the same level. Provision could be made for courses of variable duration organized on a 'credit' basis designed to complement the teacher training and leading to a degree; refresher courses in subject teaching could be provided for those with scientific or professional training to enable them to teach their speciality. Primary teacher-training schools must increase their enrolment to match local needs and the selection of candidates should be based on knowledge and aptitudes which show they possess the qualities necessary for teaching. Preference should be given to certificated teachers in public and private education and in literacy campaigns.

Entrance examinations to institutions of higher education should be prepared with regard to the local and regional circumstances in secondary education, notably as regards programmes and curricula, the institutions of higher education must make a critical analysis of the results of the entrance examinations, not only for their own guidance but above all for that of the secondary education establishments. In planning the augmentation of opportunities for access to higher education, the methods used should be of such a nature as to bring out the connexion between the educational sector and the other sectors which condition it. This will make it possible to achieve a balanced increase of financial and human resources essential for development.
Educational policy should be founded on: an evaluation of the nations, cultural, social and economic needs; analysing the growing diversification of occupations, which in turn imposes a need for a diversification of vocational courses, as regards level, duration and pattern; changing, as required, the level of certain career courses, either by relegation to the secondary level or assimilation to appropriate branches of higher education, concurrently with instituting or strengthening the short career courses required by the occupational structure of the country. As regards the expansion of education, a desideratum is the establishment of a close association between public and private education — the latter receiving technical and financial co-operation from the public authorities according to its degree of efficiency — particularly to broadening the pattern of second cycle vocational education. Similarly a financing system must be established for public and private institutions of higher education, directed to increasing the numbers in statu pupillari and at the same time fixing criteria regarding the quality of each course, the number of students, etc. This expansion also requires adequate technical aid from the authorities in order to create a structured educational process.

In each university a planning department should be established for the purpose of analysing the problems of the region in which it is located and, harmonizing the university plans with Federal Government regional, and state plans.
This study is the result of an agreement signed in 1963 between the National Institute of Educational Studies, the Brazilian Ministry of Education and Culture, and the Comparative Education Centre of the University of Chicago, for the pursuit of research on secondary education in various regions of Brazil.

The study, which is limited to secondary education with particular reference to the student element, treats essentially of the relations between economics and education in the context of the Brazilian society. From the sociological point of view, the study is characterized by concentration on certain theoretical considerations and by a specific methodological orientation. From the pedagogical point of view, it seeks to give a fairly clear approximation of the situation of secondary education in Brazil, permitting of the plotting of a policy which will serve as a basis for the planning of education.

Although the picture of the situation is in a way 'static', inasmuch as it relates to a single moment of time, the authors attempt, by comparison of towns and States which present different indices of development, to...
distinguish certain elements susceptible of throwing light upon the changes undergone by secondary education in proportion as the society becomes urbanized and industrialized. The introduction (Chapter I) gives an idea of the general orientation of the study and of the hypotheses raised.

Chapter II describes the methodology employed: (a) the nature of the data -- consisting of official statistics and information collected at first hand in establishments of secondary education and on students in different types of establishments of five States (São Paulo, Rio Grande do Sul, Pernambuco, Ceará and Pará) present marked differences in their levels of urbanization and industrialization; (b) the sample — school establishments representing the various patterns of studies comprising the Brazilian secondary education system (for the choice of establishments, each State was divided into four areas: (i) metropolitan area, (ii) towns of over 50,000 population, (iii) towns of 15,000 to 50,000 population, (iv) towns with under 15,000 population; (c) the collection and classification of data; (d) the analysis (tables of replies received with interpretations).

Chapter III presents the broad picture which emerges from the statistics: administrative structure of secondary education; rate of growth of school population; distribution by branches of study; composition by sexes; ecological distribution.

Chapters IV to VIII contain the data for the analysis of a number of characteristics of the student body (socio-economic origin, occupational and educational levels of parents, school drop-outs and backwardness, workers in paid employment, occupational aspirations, attitudes towards work). Chapters IX and X deal with secondary education and the labour market and with the demand for middle-grade personnel.

A number of conclusions emerge from the study: (a) the young people who complete secondary schooling (1st and 2nd cycles) form a small fraction of the population; (b) those who complete it do not represent all the strata of the population;
(c) the data on the educational levels of parents confirm the hypothesis of the social selectivity of secondary education as a whole and indicate additionally, differences in the selectivity between various branches of secondary education (general secondary, industrial, commercial, agricultural, teacher training); (d) industrial schools have a higher proportion of students from families who have recently risen in the social scale (Sao Paulo); (e) the proportion of backward pupils (i.e. those who reach 17 or 18 before finishing their studies) is fairly high, which suggests the need to recommend different teaching methods for Brazilian schools from those used in the more developed countries; (f) paid employment is a temporary expedient to which the pupil resorts to pay for his schooling; (g) in general, he considers that on finishing his studies he will have better job opportunities; (h) the majority of male students wish to continue higher studies concurrently with employment; (i) a large number of those who reach the end of the second cycle of secondary education aim at careers or salaried posts calling for a university diploma; (j) among these, in the male group, the preferred careers are engineering and medicine, followed by law; (k) although industrial development and economic diversification are tending to produce new openings, preferences are mainly for a limited number of occupations (those characterized by scope for personal achievement, risk and flexibility); (l) this inclination to independence and personal initiative is more marked in the more developed States; (m) verification of the incidence of secondary education in the working population indicates that a large percentage of persons in middle-level employments lack educational qualifications of the corresponding level; (n) of the total middle level workforce the proportion of those with secondary education is higher among the men; (o) in Brazil the participation of the young people (15-25 age group in economic development is very marked.

The last Chapter presents two analytical viewpoints in the form of a general conclusion. The first is a straightforward analytical approach in which facts are studies, correspondences and differences demonstrated and explanations suggested. The
second goes further and seeks to make an evaluation of the secondary education system in Brazil.

**Viewpoint A - some conclusions:** (a) neither the job opportunities resulting from economic development, nor the values, aspirations and aptitudes brought to life by the process of industrialization, are restricted to the State capitals where the large firms are centred, but affect the whole of those States studied; (b) the alignment of education with the economy would seem to be held back by institutional machinery of education, i.e., the criteria for promotion and other administrative aspects of the school system are often responsible for dropouts and backwardness at school; (c) the marked difference in prestige among the branches of secondary education comes from the realistic attitude of the 'consumers' of education, who make an objective evaluation of the quality and the possibilities of the education available to them.

**Viewpoint B - some conclusions:** (a) Pupils' differences of attitude are directly related to the degree of urbanization and industrialization of their respective regions; (b) the traditional gap between 'the two Brazils' is abundantly evident in the result of this investigation; (c) while Brazilian secondary education seems able to satisfactorily provide for the needs of the white-collar classes, it fails short as regards catering for the working class; (d) the Brazilian secondary education system seems to function fairly well in the context of a flexible economy which, despite its low output, is gradually expanding; (e) the inference is therefore that the secondary schools are adapting flexibly and pragmatically to post-war economic development; (f) Brazilian secondary education is something very different from that in other developing societies in that it seems to match up to the demands of urban and industrial growth despite its relative inadequacy — it would in any event be difficult to conceive of a more efficient system which at the same time would be politically acceptable.

Abstract prepared by Mrs. Regina Helena Tavares, Centro Brasileiro de Pesquisas Educacionais.
This work, in two volumes, deals with the 'Education and Human Resources' sector of the Federal Government's Strategic Development Programme 1968-1970. It offers an integral view of education as an instrument of social transformation, and an exposition of the quantitative and qualitative goals of the education programme, and the measures necessary for putting it into effect.

The introduction (Chapter 1) to Volume 1 defines the essential objectives for each level of education for the period 1968-70. At the elementary level the aim is to ensure the implementation of compulsory schooling for the 7-14 age group in the various State capitals and in the more important urban centres through the existing 'Operation Schools', which in addition permits of the expansion of the functional literacy programme, notably for the 15-30 age group; to effect the reform of elementary education for the specific purpose of increasing its capacity to absorb new pupils and to eliminate school wastage.

At the secondary level (middle school) the aim is to ensure the growth of public
education and the scholarship system; endeavour to
improve its content to enable school leavers to go
straight into employment; give priority to a
national programme of comprehensive schools and to
programmes for training middle level personnel in
the agricultural and industrial sector.

In higher education the aim is to: introduce
immediate and medium term measures designed to re-
solve the problem of candidates who pass entrance
examinations to faculties but are excluded by the
numerus clausus rule; initiate university reform
combined with efforts to resolve the economic, in-
stitutional and technical problems of the higher
education system; promote 'short' courses and the
training of personnel for employment in jobs of
prior importance for national development; recast
the system of financing higher education in such a
way as to increase direct community participation;
promote student participation in university life and
in the development programmes; integrate universi-
ties with development programmes.

Chapter II deals with policy lines and executory
measure: for the global plans to expand elementary,
secondary and higher education and the specific
plans for the occupational categories which have
priority for economic and social development. It
is in fact a detailed analysis of the objectives
enumerated in Chapter I.

Chapter III presents the global plans (i.e.
integrating the economic and cultural aspects)
built round combination schemes worked out from two
aspects: the first predominantly economic (for high-
er education and the second cycle of secondary edu-
cation) and the other cultural (for the first cycle
of elementary education). These are designed as
long-term plans (1976).

The specific plans (i.e. manpower requirements
at the university and secondary levels) were based
on estimates of the demand in 1976 for the various
types of manpower, giving their rate of annual in-
take into the labour market; this rate was expres-
sed in terms of output from the educational system,
making it possible to arrive at an enrolment pro-
Chapter IV gives, in detail, the financial policy which will make it possible to increase the public resources earmarked for education. The total of the programmed estimates for 1968-70 is NCr$ 9,225 millions (in 1965-67 it was NCr$ 6,578 millions).

The annexes to the first volume, include the general report of the working group on university reform, the first drafts of the Bills which accompany the report and recent legislation on university reform.

Volume 2 deals particularly with government action in the education sector either directly through organs of the Central Government and more particularly the Ministry of Education) or indirectly (when the Federal Government under agreement delegates programme responsibilities to other public or private institutions) or again by depositing global sums in the Federal Budget for the universities to carry out their programmes.

Finally the programmes and priority projects are listed. The special priorities comprise: Operation Schools (elementary education); Operation Output (higher education), recasting of the salary system for university teachers and instituting a full-time service system for them; programmes for the expansion of the national education system (elementary and secondary education, frontier schools, etc.); programmes for industrial training; refresher programmes for teaching and administrative staff; student aid programmes (school materials, school meals); research programmes.

Abstract submitted by Mrs. Regina Helena Tavares, Centro Brasileiro de Pesquisas Educacionais.
A rapid growth in the number of students who continue their studies after the nine-year basic school (of the comprehensive type) and particularly those at university and college, has resulted in a more heterogeneous student population. One of the consequences for many students has been that the lack of financial means is one of the major obstacles to graduation. The existing system for study support has not been adequate on account of its looseness and on account of inflation, therefore the Government set up a committee to prepare a total reform of the system of State support for students. The committee was first charged with drafting a Bill for a new system of financial aid for college and university students but later extended its authority to cover all education after the basic school.

The committee aimed at creating a system of study support for all students continuing their studies in an educational institution after basic school; it should also include Finnish students studying abroad in institutions approved by the Ministry of Education and in the opinion of the committee those foreigners living permanently in Finland but...
who have not come to Finland specifically to study. The system should not include students in the upper secondary school (gymnasium, senior high school), apprentices receiving on-the-job training, or students in those courses or institutions which defrayed their expenses or paid a salary during the study period.

In 1967, such a system would have covered approximately 142,000 students, of these about 50,000 studied in universities and colleges. It is predicted that in 1975 approximately 200,000 students would be included in the system, of these 64,000 will study in universities and colleges.

The present system of study support gives a student both direct and indirect financial support. The direct support includes university and college scholarships (approximately 4,000 yearly) which cover between 5% and 30% of study expenses. Scholarships are assigned on the basis of the student's scholastic attainment and diligence and on the basis of his parents' economic status. Certain vocational schools also give some students small State non-interest loans. Five to six hundred university and college students have been awarded non-interest loans. The State also helps the students' loan funds financially by paying part of the interest so that the students pay 5% interest which means a 2-3% subvention from the State. The State also gives a bank security for those study loans granted to poor but talented and diligent students. A number of these loans have been changed into scholarships for students successfully completing their studies in a short time. This system only covers university and college students.

The chief forms of indirect support are the State-maintained schools or the government-aided schools which have reduced tuition fees. The State also gives financial support to the building of students' houses; health foundation; working students are entitled to tax deductions and special rates on public transport.

The obvious weaknesses of the present system are the inadequate coverage, the smallness of the
financial aid and the looseness of the system. Coverage is restricted by the criteria of talent, diligence and indigence. Talent and diligence are difficult to measure, and the social nature of criteria is not the best possible basis for a system of study support. Under the present system only part of the students in need of financial aid have been able to receive it. The Committee holds that the maximum and minimum amounts of financial support have to be defined and that the system of study support must constitute a consistent whole.

The committee presented a draft for a new system of study support the main points of which are the following:

(a) A new system of study support should be adopted according to which every Finnish citizen who continues his studies after the basic school in a public educational institution for a minimum of eight months a year will be entitled to study support for a definite period of time.

(b) The committee suggests that two forms of study support be set up: general aid which would cover average study expenses in each type of educational institution and special aid which would usually be 70% of the amount of general aid.

(c) Study support should be given in the form of scholarships and study loans.

(d) The new system of study support should be supervised by a special agency in the Ministry of Education in collaboration with local boards.

(e) The new system should be implemented gradually so that it would be in full operation by 1975.

(f) The committee emphasizes that a new and considerably more expensive system of study support necessitates an education reform which will ensure more effective study and a shortening of the average duration of study.

(g) The new system of study support should include all studies up to the degree of licenciate. A separate system of research scholarships should be available for those who wish to go on for their doctorate.
(b) The economic status of a student's parents should not normally be used as a criterion for study support; the criteria of diligence and talent should also be discarded. The committee maintains that a normal rate and success of study should enable a student to receive study support.
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Since 1966 Finland has had an Advisory Council on Universities under the Ministry of Education. Its task is to prepare plans for the development of higher education in Finland and to make proposals on these matters. The council has a chairman and ten members appointed for three years by the Government, and the head of the Department of Higher Education and Research in the Ministry of Education. The council has made several proposals concerning the development of higher education in Finland.

The humanistic and mathematic-natural science faculties of Finnish universities award the degrees of bachelor, master, licentiate, and doctor. The report deals with the degrees of bachelor and master. The main characteristics of the present system are as follows.

The lowest academic degree (B.A. or B.Sc.) requires the study of at least three different subjects. The undergraduate is required to have an intermediary academic grade (i.e. cum laude approbatur), at least in one subject. If the undergraduate has a cum laude approbatur grade in one subject only he has to take...
the lower academic grade (approbatur) in a minimum of three subjects. In addition he has to write a required number of papers in his major subject (i.e. the subject in which he has a cum laude approbatur) and then to write a paper in the same field without the use of any reference books. The purpose of these papers is to show that the undergraduate can write fluently his mother tongue and that his knowledge of the major subject is satisfactory.

The higher academic degree (M.A. or M.Sc.) requires the study of at least three subjects. The student must have a higher academic grade (laudatur) in his major subject, (i.e. the subject in which he writes his master's thesis (progradu). Faculties decide what minimum grades the student must have in the other two subjects. Before the final examination the student is required to (i) take an examination in a foreign language (pro exercitio), and (ii) write his master's thesis which includes an approved thesis and a short paper written without the aid of any reference books.

The B.A. or B.Sc. degree is planned to take three years and the M.A. or M.Sc. four to five years.

The main objectives of the proposed reform, which is designed to improve the effectiveness and organization of studies and to make the examination procedure more flexible, are as follows:

(1) Academic degrees should consist of more flexible units than is possible at present; this is motivated by the nature of certain fields of knowledge and the objectives and requirements of vocational education. It is considered desirable, on the one hand, to have examinations concentrate on a more limited range of subject matter than is customary at present, and on the other to combine a greater variety of subjects to form the basis for obtaining degrees.

(2) The amount of work which each degree takes should be more carefully estimated and the degrees awarded by various faculties should be comparable in this respect. It has been pointed out that there have been unintentional increases in the requirements of certain subjects which are difficult to measure.
(3) The organization of studies must be gradually changed in order to ensure that: studying is generally a whole-time occupation; the average time of study for the B.A. and M.A. is shortened; and the number of drop-outs decreases. This must not however entail a reduction of scholastic requirements.

The task of the Council was to construct a general model to show how the examinations in the faculties of philosophy and social sciences should be arranged and graded. The examination model is made up of two parts, the system of credits and the system of graded examinations.

Credit system. The main characteristic of the examination procedure based on the credit system is that a credit is a unit which indicates an estimated average amount of work which is needed for an acceptable specific performance. The credit unit makes it possible to establish the average amount of work and time needed for a degree, to compare the various parts of a degree with each other, and in principle to make the degree as homogeneous or heterogeneous as required.

The Council has found it reasonable to define a credit as a unit indicating the average amount of work a student needs to do to pass successfully a series of lectures which lasts one term (one-half of the academic year) and takes one hour a week. Passing the examination at the end of the lecture does not require extra reading besides the subject matter covered during the lecture. It is estimated that this means two hours of reading a week during the term, or full time reading for an average week of 40 hours - this work-load represents one credit.

The concept of a whole-time student must also be defined in order to be able to use the credit as a unit of work applicable to a whole academic year. Following the Swedish system the Council defines the average amount of work of a whole-time student during the academic year equal to 40 credits. This definition implies an average of 40 weeks of study during an academic year. Studies may extend outside ordinary terms (reading for exams during holidays,
practical field training, writing the master's thesis etc.), since the academic year at present normally contains 35 effective weeks of study.

The credit unit has been defined so that it does not necessitate any organizational reforms of studying. The credit system can in principle be applied to studies with fixed courses and to studies which allow a greater freedom of choice.

Examination system. The B.A. and B.Sc. require 120 credits and the M.A. and M.Sc. 160 credits. This implies that the lower degree will usually take three years of whole-time study. Correspondingly the higher degree will take four years. If a student studies only 30 hours a week it means theoretically a longer time of study: four years for a lower degree instead of three. A summer term can shorten the time of study, provided that effective study time is an average of 40 hours a week throughout the year.

The lower degree must include studies at least in three and at most in five subjects and the required minimum number of credits per subject is 10. The number of credits in each subject is normally 10, 20, 30, etc. consisting of courses which give 2-10 credits. It is not considered reasonable to arrange courses which give less than two credits. Both undergraduate and graduate courses are provided. The B.A. degree can include extra language courses equal to 10 credits and other additional courses equal to 20 credits at most.

The B.A. degree does not necessarily include any 'major' subject and the number of subjects in the subject combination can vary. If the student intends to take a higher degree he must for the lower degree have 100 credits in three subjects, and the main subject must be equal to 40-60 credits. If the M.A. degree is not aimed at there is an alternative combination of subjects available in which the student has 100 credits in five subjects. The subject combination must, however, be approved by the faculty.
The higher degree consists of 160 credits. Forty credits must be received for post-graduate courses. The major subject is planned to amount to 80 credits. A faculty can accept exceptions within reasonable limits. Part of major studies is the writing of a master's thesis, which represents 15 credits. At present preparing a thesis usually takes 2-12 months. The Council maintains that four months should be the average time spent on a thesis and that it should not take more than six months. Besides the major subject the student must have at least 40 credits in another subject.

In addition to these detailed directives are models of approved subject combinations, restrictions concerning closely related subjects, and directions concerning the order in which students are entitled to take examinations.
The work of the committee is divided into three reports. The first presents a Bill for the reform of educational administration, and a plan for the organizational reform of the National Board of Schools; the second contains a plan for the official channels of referring and deciding matters within the Board; and the third contains a plan for regional school administration under the Ministry of Education. The committee will continue its work by preparing plans for the division of power between the Ministry of Education and the National Board of Schools, and plans for the rules of procedure for regional school administration.

The central administration of education has been divided among the Ministries of Education, Agriculture, Interior, Commerce and Industry, and Social Affairs. The Ministry of Education supervises elementary, civic, and secondary schools, various kinds of teacher training institutes, adult continuation schools, various kinds of adult evening schools, sports institutions, etc., through the National Board of Schools. The greater part of the education system, based on the basic school curriculum (a nine-year comprehensive school), is now supervised by the
Ministry of Education, since it recently incorporated also the National Board of Vocational Education which in turn took over certain vocational schools previously subordinated to the Ministries of Agriculture and Social Affairs.

The National Board of Schools has been divided into six sections: two sections for elementary education; two for secondary; one for adult education (Finnish-speaking division); and one section for Swedish-speaking schools and educational institutions. The Board also contains six independent offices which prepare matters common to two or more sections.

The committee maintains that the organization of the National Board of Schools should be based on functional units. Thus the committee suggests replacing the six sections with three: a general section for administration, staff, accounting, government aid, and school buildings; a school section for school affairs, school planning and adult education; a teaching section for curriculum planning and revision, experiment and research, inspection, special education, and teacher education.

The second report presents a plan for administrative procedure within the National Board of Schools. It deals with the division of labour between the various offices, the power to make decisions, the treatment and presentation of matters and the tasks and duties of the Assistant Commissioner of Education. The committee suggests that internal decentralization be arranged on the basis of rules less binding than statutes, since the best way of achieving decentralization can be found after practical experience resulting from the new organization.

The third report deals with the organization of the regional school administration which falls within the domain of the Ministry of Education. In the present system public school inspectors act as regional school administrative officials. Each of the sixteen inspection areas has at least two inspection districts. Each inspection area has a central office headed by a school inspector. In
addition to the government public school inspectors there are municipal public school inspectors in towns with a population of 15,000 or more.

The committee suggests that regional school administration which falls within the jurisdiction of the National Board of Schools be attached to county councils. Directly under the National Board of Schools, however, would be placed teacher training institutes, sports institutes, schools for the blind and the deaf, and schools with a foreign language as the main working language. The committee does not find it practicable to subordinate to regional school authorities vocational schools which are mainly national in character serving the needs of the whole country. The committee further suggests that the organization of regional administration under the National Board of Vocational Education be taken into closer consideration later.

The county councils according to the committee would have a school department for the administration of school and cultural affairs supervised by the head of department. Thus the school departments in the county councils in Finland would have 11 department heads, about 60 school inspectors and the required clerical and secretarial staff.
Finland has had a selective secondary educational system which means that two types of schools have operated parallel to each other: transfer from the elementary school to the secondary school has taken place after grade 4. This rather final organizational differentiation into an 'academic programme' (secondary school), which prepares for the upper secondary school and for the university, and into 'non-academic' programme, which prepares for the vocational school or for the labour market has taken place at the age of 10-11. This parallel-school system has not been able to meet the requirements of the rapidly changing Finnish society. There were indications that keeping this system intact would have soon led the educational establishment into great difficulties — pedagogic, economic, social, and organizational. In 1963 the Parliament of Finland moved that the Government act without delay to reform basic education in accordance with the principles of comprehensive education taking into account committee reports and the results from experiments and present a Bill to Parliament without undue delay.

The Law of the Principles of Public Education of 26 July 1968 will form the administration...
tive and organizational basis of the Finnish school reform. The Law will take effect on 1 August 1970. The new Law lays down that Finland's school system will be developed in accordance with the main principles of comprehensive education. The core of the system is a municipal school system which includes a basic school. It can also embrace a kindergarten or corresponding pre-school classes, upper secondary, and vocational schools. Other schools not maintained by a community can replace a municipal school. The State, organizations or private citizens can support upper secondary and vocational schools together with the community. The communities are responsible for arranging basic school instruction and for developing local education.

Compulsory education starts at the age of 7 and ends at 16 and is provided by the basic school, which is a nine-year comprehensive school. The six lower grades constitute the lower basic school and the three following grades the upper basic school. In principle, instruction in the lower basic school is similar for all pupils. In the upper basic school the students study compulsory subjects some of which offer a choice of level courses, and elective subjects. The basic schools give instruction in religion, environment study, mother tongue, foreign language, the other official language of the country, history, civics, citizenship, mathematics, physics, natural science, geography, physical education, drawing, music, handicraft, household affairs, practical training, and subjects which deal with economic life and are helpful to vocational guidance. The syllabus can also include a few hours for individual guidance and counselling. If five or more pupils have been exempted from ordinary denominational instruction in religion (Lutheran or Greek Catholic), on the basis of the law of religious liberty, non-denominational instruction in the history of religion and ethics has to be provided for them. If there are five or more pupils in any school who belong to smaller religious communities they have to be given instruction in religion in accordance with their own denominations. The students' parents decide what elective subjects and level courses their children take up after they have been informed of the school's evaluation of
however, can alter a student's choice of subjects and level of courses in the light of the student's progress. A student can also be exempted from the study of certain subjects, e.g., religion, first and second foreign language.

School administration is the responsibility of the Ministry of Education and the National Board of Schools which supervises district school inspectors. Each community has a school board whose members are appointed by the local municipal council for four years. The board leads and supervises the community schools, makes suggestions for the improvement of local school affairs and reports to the school authorities. The school board is assisted by a local manager of school affairs or a secretary on a whole or part-time basis. Each school has a school council whose members are appointed by the local municipal council. The school council also includes a teachers' representative and student representatives from the upper basic school. The student representatives have a right to express opinions but no right to vote.

Each community has to set up a committee to plan local school affairs. This committee has to draft a plan which makes a forecast of the demand for educational services and outlines the measures which will be taken to implement the basic school. The Government ratifies in 1972 the regional plan which specifies what time each community has to send its educational plan to the National Board of Schools for inspection and by what time the municipal basic schools must be in operation. According to the Law a municipal school system has to be established in each community by 1980.

The community can take over private schools through mutual agreements. A private school can also be enjoined to act as a replacement for a basic school. This means that it must provide free education to all. It is also supervised by the local school authorities. The teachers of private schools will be transferred into corresponding positions in the municipal school system if the school has been purchased by the community. If the
private schools do not comply with the requirements laid down by the Law within the time set the State can resort to the economic sanctions by withdrawing its financial aid to these schools.1

The State defrays between 5% and 95% of the building and operating expenses of basic schools, depending on the economic status of the community. The State also covers a certain part of the transportation expenses or alternately boarding-school expenses. Instruction and the necessary educational materials are free.

More detailed statutes concerning the execution and application of the Law are under preparation. The Law of the Principles of Public Education and the statutes appended to it will form the basis for more detailed administrative rules and decisions. It is possible that the results of school experiments can bring about changes in the rules at a later stage of the reform.

1. At present, the private schools are receiving State subsidies up to 80% of their expenses.
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<td>Helsinki, Komiteanmietintö 1969: A 5; 84 p.</td>
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<td>Report of the Committee for Basic School Teachers</td>
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The school reform now in progress in Finland (transition to a 9-year basic school of the comprehensive type by 1980) has brought about a rapid reorganization of the education of basic school teachers. The main outlines of the reform were given in Opettajamvalmistustoumikunnan mietintö (Report of the Committee for the Planning of Teacher Training), 1967, and to the temporary scheme for the reorganization of the training of basic school class-teachers, as distinct from subject teachers, in Opettajanvalmistuksen opetusuunnitelmatoimikunnan mietintö (Report of the Curriculum Planning Commission for General Teacher Training), 1968. The present report is based on the earlier ones, and gives suggestions concerning the administration and organization of teacher training, the institutions, and the number to be trained.

The committee proposed that basic school teachers should be trained exclusively by universities. In accordance with this proposal, six Finnish-speaking and one Swedish-speaking teacher training units will be set up — the former will be attached to the five universities (Helsinki, Jyväskylä, 

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**Classification** (for the use of receiver) | **Country** Finland | **CEAS No.** 70/14 E  
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| **No.** 16 | **Date of issue** October 1970 |
Tampere and Turku) and to the Institution of Higher Education in Joensuu, and the latter will form a part of the Academic University of Abo. Certain units will function in two localities. The new system covers most of the present teacher training colleges and all normal (secondary) schools; it will not, however, be possible to include the six teacher training schools.

The units will be called teacher training departments, comparable to a faculty or university institute. Each will consist of one or more teacher training colleges, and a number of training schools composed of the elementary schools of the existing teacher training colleges and of normal schools. During the first nine years these schools will follow the organization of the basic school.

The head of a teacher training department will be a professor, and that of a teacher training college an associate professor. The students will be represented on the administrative organs. The administration of teacher training must follow the ongoing development of the administrative structure of higher education institutions.

Teacher training will be under the supervision of the Ministry of Education. In order to ensure that the immediate needs of schools can be taken into consideration in teacher training, the committee suggested that the central administration is divided between the Ministry of Education and the National Board of Schools. University studies aimed at a degree will be under the supervision of the Ministry whereas general studies, the elementary studies of class teachers, and the extended courses in individual subjects, as well as student teaching will be supervised by the National Board of Schools. The studies carried out by subject teachers will also belong to the latter category, provided that these studies do not lead to academic degrees.

Each teacher training department will educate both class teachers (mainly for grades 1-6) and subject teachers (mainly for grades 7-9 for the basic school).
Class teachers are already being trained in the new way on the basis of the report of the Curriculum Planning Commission for General Teacher Training (1968). It is typical of this training that the students first take several subjects at a time; later on they specialize in three fields or subjects. The committee found the examination of class teachers to correspond in extensiveness to the lower candidate's degree (B.A.). Therefore it proposes that a new title be established: Candidate (B.A.) of Teaching. In the committee's opinion, 700 class teachers a year will be required in the near future.

The studies of subject teachers differ from those of class teachers in that the former concentrate on only a few subjects. They must, however, have in their combination of subjects at least two which are taught in the basic school. Their basic examination will be that of Candidate (B.A.) of humanistic or natural sciences, followed by one year's study in a teacher training department. During this period the student teachers will be particularly engaged in pedagogic subjects and student teaching. Some 650 subject teachers will be needed each year.

The committee paid special attention to the training of counselling personnel. Counselling teachers correspond to subject teachers, and they will be concerned mainly with the upper grades of the basic school, both for teaching and for various counselling duties. The training of counselling personnel will take one academic year and be based on the examination of basic school teachers.

The committee stressed the importance of preparatory and field training in student teaching, and presented suggestions for its organization. Further teacher training is considered to be necessary, but it must generally be on a voluntary basis. Those teachers who have received the conventional education for elementary school teachers can become specialized class teachers by carrying out specialized studies in two subjects.
The committee believed the ultimate goal of teacher training to be a 4-year period of study based on the matriculation examination and leading to a uniform academic degree. In its opinion, this should be the goal in all fields of education.
The Government has introduced a comprehensive and dynamic programme, on a country-wide basis, for the promotion of family planning and population control, but which needs to be strengthened. Introduction of population education in schools and colleges thus becomes relevant in order to initiate the young to the problem. To this end, the Ministry of Education and Youth Services, in collaboration with the Ministry of Health and Family Planning, organized a National Seminar on Population Education at Sachivalaya, Bombay, on 2-3 August 1969; the department of Social Sciences and Humanities of the National Council of Educational Research and Training was responsible for providing the academic and organizational services. The major objectives before the seminar were: (a) to review the work already done so far in population education by the different agencies, official and non-official, in the country; (b) to clarify the concept and objectives of population education; (c) to develop a practical and realistic plan of action for the introduction of population education in the curricula at different stages of education. The report of the seminar includes a number of recommendations and a plan of action.
Recommendations. Population education has been rapidly emerging as a new but important phase of the total programme dealing with population planning. While emphasizing this important relationship, the report makes a clearcut distinction between population education and sex education. Population education is primarily a motivational force for creating the right attitudes to family size and the need for family planning and should not be mixed up with either sex education or the knowledge of family planning methods. What children need is knowledge of the relationship between population and economic development, between a high birth rate and a high death rate, between national income and per capita income, the difference in growth rate in different countries and their relevance to their differing degrees of economic development and levels of welfare, the costs of human resource development and the availability of finance for meeting these costs with particular reference to the numbers involved, the economic and welfare aspect of a large and a small family, and the extent to which family size is a matter of deliberate choice and human regulation rather than accident or of forces beyond human control. They should also have a proper conception of the phenomenon of the reproduction and continuation of species in all living beings.

Population education should, however, not be treated as only a quantitative phenomenon; it is the quality of population that is most relevant both as a factor of growth and end-product of growth. The numbers have to be treated in terms of the effect they have on quality, either by way of deterioration or of improvement. In the ultimate analysis population education is a moulder of attitudes and a creator of predispositions favourable to planned families of reduced size. Once the ground work of receptive attitude had been created, the direct means of birth control and family planning education would become more relevant to the individual and more likely to be used by him.

Students at all levels have a right to accurate information about the effect of changes in family size and in national population on the individual, the family, and the nation, with the objective that
this knowledge is utilized to control family size and national population with beneficial impact on the economic development of the nation and the welfare of the individual families. The subject should be introduced into the curriculum of schools and colleges by including it when possible in areas of study such as social studies, sciences, health education, mathematics, languages, etc. Due care must be given to ensure that the ideas and information offered are appropriate to the age level and cultural orientation of the pupil, including those outside the educational system, such as adults.

Plan of action. A separate Population Education Cell should be established in the National Council of Educational Research and Training in order to develop suitable curricula on population education at the school stage. This cell should work in close collaboration with other agencies interested in the programme, both official and voluntary. Immediate steps must be taken: (a) to clearly define the content of population education at different stages and evolve suitable methods for teaching and examination; and (b) to prepare books, supplementary reading materials, audio-visual aids, teachers' guides, etc., needed for the successful implementation of the programme.

Teachers are the most important agents of curriculum change. Population education should therefore form an integral part of the courses in the teachers colleges at both primary and secondary level. Suitable steps should be taken to organize in-service training for teachers and there should be specialists in the subject among the teacher educators at the postgraduate level. Research should be promoted in teacher training colleges, liberal arts colleges and other institutions of higher education. Inter-disciplinary research should be developed in the universities. At the college level, the universities should design a course in demography at the undergraduate stage so that those who are interested in population problems could specialize at the postgraduate level in demography. College level guidance bureaux should
be strengthened by qualified staff who would help the students to solve personal problems in connexion with family relations, marriage counselling etc. Extension lectures should be organized in each college and university every year in order to ensure a widespread awareness of the problem.

The Seminar recommended that the Government should take immediate steps to set up a standing committee which could watch the progress in the implementation of these recommendations by the various organizations at the different levels.
In December 1968, the Ministry of Education, Government of India, resolved to establish a National Board of School Textbooks (NBST) on the recommendation of the National Integration Council. The government resolution for the establishment of NBST is broad-based. Its functions are to: evaluate the existing standard of textbooks; suggest to Central and State agencies policies and programmes for improving the standards of preparation and production of textbooks, and ways and means of controlling prices; act as a national forum for enunciating a sound policy regarding a comprehensive programme of textbooks and allied aspects. The Board is composed of the Union Education Minister (Chairman), all State Education Ministers, and 16 educationists; its first meeting was held in April 1969.

The first part of the report presents a brief account of the discussions on the existing position regarding the production and distribution of school textbooks. All States of India except Gujarat have nationalized textbook production. While several States have produced more than 150 textbooks through State controlled efforts, many others have produced only a few textbooks.
through this process.

The recommendations of the Board, which constitute the second part of the report, indicate for the first time a comprehensive and broad-based national policy and action programme on various significant aspects of school textbooks. The recommendations cover: (i) agencies responsible for the production of school textbooks; (ii) improvement of the quality of textbooks; (iii) preparation of supplementary educational materials; (iv) introduction of some common textbooks throughout the country; (v) printing, pricing and distribution; (vi) role of the central agencies such as the National Council of Educational Research and Training (NCERT) in the textbook programme.

It is recognized that the State Education Department should assume direct responsibility for producing quality textbooks at reasonable prices. Appropriate agencies such as textbook corporations or bureaux should be established for this purpose with the required autonomy and official support to work effectively and on a no-profit no-loss basis. Special measures are suggested to improve the quality of textbooks, including: attracting the best available talent to write textbooks either by offering a good remuneration or academic reward; conducting pre-publication testing in the field and textbook research; training new and promising authors, illustrators and textbook designers; developing a pool of textual materials; applying new techniques to printing and binding; evaluating the textbooks with the help of university personnel, school teachers and even students.

Apart from the above improvements special stress is laid on their effective use by teachers and students. For this purpose it is recommended that supplementary reading books should be prepared such as teachers handbook for every textbook. These should be supported by audio-visual aids and laboratory equipment. Common textbooks should also be prepared on certain special topics of national significance, for example, on the need to eliminate the evil of untouchability.
A programme of continuous evaluation of textbooks is recommended, particularly those required for history, social studies and languages which, if not appropriately prepared, may result in the development of a variety of socially undesirable prejudices leading to communal disharmony and disintegration. Similarly, the textbooks in sciences should be evaluated to remove incorrect information, and to enrich and update its contents from time to time in order to keep pace with new developments. In each State, a high-level textbook committee should be established directly responsible to the Minister of Education, particularly to arrange for the evaluation of all new textbooks.

For a vast country like India, with limited material resources and a scarcity of qualified personnel, the need for co-ordinated effort cannot be over-stressed. Several recommendations therefore mention the need for co-ordination through the exchange of materials, production of certain materials at the national level, maintenance of a national centre for textual materials by the NCERT and the creation of a Department of Textbooks in the Council to undertake national programmes of research, development, training and extension of value for all States. The Textbook Department should act as a clearing-house agency and assume co-ordinating functions at the national level. It should also help the States, through comparative studies of their syllabuses to introduce common textbooks in full or in part depending upon the grade levels and nature of the individual subjects.

Soon after the first meeting of the NBST, Gujarat State also announced its policy of nationalizing school textbooks and initiated work in this direction. Thus, all States have now accepted the policy of producing State-controlled textbooks for the purpose of improving quality and reducing price. The Department of Textbooks has since been established in the NCERT at New Delhi.

Abstract prepared by Dr. R.H. Dave, Head, Department of Textbooks, NCERT & Jt. Secretary, National Board of School Textbooks.
Conferences of Vice-Chancellors of Universities in India are convened periodically, usually at one or two yearly intervals by the Ministry of Education and Youth Services, Government of India, and the University Grants Commission, for consideration of important matters related to the development of higher education in the country. The sixth conference of vice-chancellors was held in New Delhi on 21-23 April 1969. The report contains the addresses of the Minister of Education and Youth Services and the Chairman of the University Grants Commission, the recommendations adopted by the conference, and the reports of its three committees.

The Education Minister in his inaugural address referred to the large-scale expansion in the field of higher education, and the problems and difficulties which have to be faced; the steps to be taken for the introduction of regional languages as a media of instruction and for organizing a programme for the production of textbooks and necessary literature in these languages; the introduction of a national social service programme and for better organization of games and sports in universities and colleges. There
was an urgent need to provide support for the proper development of affiliated colleges and the provision of necessary amenities and welfare services for the student community. He referred in particular to the question of student participation in university affairs and pleaded for the introduction, on an experimental basis, of an employment-oriented course leading to the first degree.

The Chairman, University Grants Commission, in his address to the conference referred to the recommendations made by the Education Commission (1964-66) and the Conference of Vice-Chancellors held on 11-13 September 1967 regarding the medium of instruction, improvement of standards, provision of facilities etc., and stressed their importance. He pointed out the crucial relevance of education to national development and regretted the relatively low expenditure on education from public funds. He referred to the need for a radical change in university organization, and expeditious implementation of programmes of educational reconstruction. Effective and meaningful student participation in university affairs, and production of suitable books and literature in Indian languages, for higher studies were urgently necessary.

The Conference, on the basis of its committees' reports, made a number of recommendations. In view of the rapid advance in various fields of knowledge, there was a need for a continuing review of the current academic courses and programmes. Each university should formulate a five-year plan for upgrading the syllabi and standards, keeping in view the resources available. It was recognized that curriculum reform could be made only after adequate preparation. The programme of summer institutes, orientation courses, seminars and academic conferences, intended to acquaint teachers with modern curricula and methods of instruction, should be expanded. Schools of education should be established within the universities to provide leadership in the field of teacher education and for promoting interdisciplinary research on educational problems. Suitable courses in educational psychology, philosophy and sociology of education...
evaluation techniques and organization of teaching should be conducted for the benefit of college and university teachers.

Outstanding university departments, which are functioning as centres of advanced study in specific fields or disciplines, should build up strong schools of research and help in improving academic standards in other universities, by providing academic leadership, programmes for training teachers and research workers, and guidance on the improvement of curricula. The importance of promoting interdisciplinary studies was also stressed.

In view of the rapidly changing socio-economic conditions, university education should be coordinated with manpower requirements, particularly in professional subjects; courses should be suitably diversified at various levels and provision made for a vocational course leading to a degree. Short-term employment-oriented courses for middle-level technicians should be provided. There should be closer liaison between universities and industry, and more emphasis given to sandwich courses and actual work experience.

On the question of examination reform it was agreed that there were various advantages in arranging examinations in parts and conveniently spacing them. Sessional work and internal assessment in the evaluation and grading of students should be introduced even if these tests were not taken into account in the final result, they could be separately indicated in the certificate of marks. The semester system, provided an opportunity for restructuring and modernizing courses of study.

The existing regional imbalances and disparities as regards facilities for higher education were noted; these should be rectified by carefully selecting the location of new colleges and keeping in view the needs of backward areas.

The conference strongly felt that reforms were overdue in the existing university structure. The decision-taking process in a university should be broad-based and well-suited for a dynamic organisation.
zation such as the university. Towards this end steps should be taken to decentralize the functions performed by various university bodies. The vice-chancellor should be given increased authority to enable him to be a true leader of the academic community and discharge his responsibilities in an efficient way. It was recommended that questions relating to the structure and composition of university bodies, relationship of universities with their affiliated colleges, and student participation in statutory bodies of universities and colleges should be further examined by an expert body.

A determined effort should be made to avoid polarization between teachers, students and administration; steps should be taken to build up an atmosphere of harmony and mutual understanding. Consultative machinery must be devised to enable the authorities in universities and colleges to discuss with students their needs and problems, with a view to taking quick remedial action. Effective student participation should be secured in the management of hostels, student homes, non-resident student centres, canteens, libraries and reading rooms, sports and games, cultural programmes and the provision of essential facilities. The active co-operation of students should be secured by the authorities for the maintenance of discipline. Cases of serious acts of indiscipline may be considered by a small discipline committee which included students.

The conference stressed the need for involving the universities directly in the programme of writing and production of textbooks in regional languages, and suggested that it should be possible for a young teacher to obtain a doctorate degree by writing a standard textbook.

The role of the universities in promoting adult education and conducting part-time courses was discussed and it was felt that a department of adult and continuing education should be established for this purpose. It was recommended that extension work should be undertaken by the universities in various fields, and the services of
students, teachers and retired persons could be utilized for spreading literacy. The conference was in favour of introducing a programme of national service by students on a voluntary basis in selected institutions.

It was recommended that scholarships should be provided to enable outstanding students to obtain admission in the universities offering the best facilities in particular subjects or courses. Restrictions on admission based on domicile should be removed.
The National Conferences on Civic Training and Adult Education were part of a programme of operations pursued by the Ministry of Education in response to the following observations of the President of the Republic on the urgency of a radical educational reform in his Fourth Report to the Union Congress in 1968: 'In speaking of the reform of education, I am thinking of a process which needs to begin in the home, continue in the kindergarten and in primary and secondary school and the baccalaureate and extend to middle, professional and even post-graduate studies; and at all these stages progressively lay the foundations for the human being's attitude to life and line of conduct towards his fellows. Education is a permanent process; it is never finished'.

In his opening address the Minister of Education said: '... educational reform is part of a far-reaching plan of social reform, starting from a dynamic remodelling of the attitude of solidarity, understood in awareness of and implemented in the habit of service to collective interests, national interests interpreted in a humanist sense linking them, in a universal perspective,
with the international realities and necessities
determined by independence and justice'. He
characterized civic training as an all-sector task,
transcending confinement to the classroom and em-
bracing the whole of a man's life, within the years
of formal education and outside them, because it
relates to the behaviour of the individual in the
sense of his principles and of the action based on
principle. It was the principal task of educators,
and bears a systematic relationship to other co-
curricular and extra-curricular instruction, intel-
lectual, factual and practical, and therefore no
subject must fail to provide an opportunity for
training the pupil's civic conscience. The co-
ordination of school and out-of-school activities
with civic training and the organic incorporation
of the latter with each and every form of teaching
activity were the basic directives prescribed by
the Minister for the proceedings.

With regard to education for adults, the Minis-
ter drew special attention to the importance of
literacy training and to the problem of getting new
literates to make regular use of reading and writ-
ing, and thereby the need to provide them with
opportunities, incitement and materials which can
raise the level of culture. Due regard must be
had for the 'realities and modalities differentia-
ting urban from rural areas', and he insisted that
Mexican education must be more active — the curri-
cula and syllabuses, and above all the initiative
of dedicated teachers, should bring in a series of
activities whereby a better personal grasp, appli-
cation and development of the knowledge imparted
might be achieved.

The Conference made a number of recommendations
concerning civic training. The school should
establish the educational environment appropriate
for the civic training of the individual and be a
factor promoting the improvement of the family and
social setting, to contribute to the healthy and
balanced integration of his personality. The scope
and objectives of any training should be incorpora-
ted in the system of integral education postulated
by the Political Constitution of Mexico; curricula,
syllabuses and textbooks should be revised with the
aim being balanced in the diverse formative areas and functional in those aspects which have a bearing on civic training. In addition to orientating teachers on the point that civic training demands the co-ordination of all disciplines in the curriculum, use should also be made of teaching methods which will guarantee effective self-training by pupils.

Democratic principles should be fostered in the organization of school life and care taken to have the administration and government of schools based on respect for human dignity; pupils should be encouraged to participate in the life of the school, and there should be collaboration between the authorities and student body to ensure the integration and functioning of the school. Co-ordination between the school, the home and the society should be increased, in order to foster the adaptation of the individual to the dynamics of the community.

In out-of-school education, the trend of the system should be towards civic training as a permanent practice. Programmes for community development are a useful expedient commanding world-wide acceptance, and it is necessary to plan education in terms of the cultural, social and economic changes foreseeable in the sphere of national action.

The Conference went on to recommend that education for adults must necessarily fall within the concept of permanent and continuous education, inasmuch as its purpose is to equip individuals to aid, facilitate and promote social changes. Adult literacy training should make maximum use of television and radio courses and the literacy campaign should be consolidated through the introduction of libraries, out-of-school education centres, cultural missions, etc. There should be an increase in the number of juvenile-adult primary schools, which should provide curricula adapted to the psychological and social characteristics of adults and award appropriate certificates enabling them to continue their studies.
The importance of technical competence was stressed and the right of the productive worker to obtain higher qualifications. In the case of industrial workers, enterprises should have certain obligations in the training of workers. The competence of agricultural workers should also be intensified by various means.

The education of the adult should be directed in the first instance to resolving his problem as a productive element, i.e., training him, according to regional manpower requirements, for a type of work which will enable him to improve his earnings; and thereafter to converting him into a factor for instruction and the transmission of knowledge within his family and community, and to equipping him to make the most of his own resources and those of his society.
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<th>Author</th>
<th>Congreso Nacional de Educación Normal. IV. Saltillo, Coahuila, México (28.IV - 4.V. 1969)</th>
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<tr>
<td>Title</td>
<td>Declaratoria del IV Congreso Nacional de Educación Normal</td>
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<tr>
<td>Bibliographical data</td>
<td>Declaration of the IV National Congress on Normal Education</td>
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<td>Translation</td>
<td>This document was drawn up by the participants in the IVth National Congress on Normal Education. The purpose of the congress was to study the problems of this educational level. The meeting was held at the Normal School of Coahuila in April 1969 to commemorate its seventy-fifth anniversary. The declaration of principles is followed by proposals to the educational authorities on twenty-seven aspects of teacher training.</td>
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The declaration points out the importance of teacher training in the educational system, the fundamental problems presently facing this level of studies and the significance of reform.

The main objective of teacher education is to give primary school teachers ample preparation in the different fields demanded by the profession.

The curriculum should cover the areas of work efficiency established as necessary for the training of a good teacher. It should include subjects on general culture, educational sciences and techniques, professional ethics, social training and teaching practice.
Normal schools should function independently of the secondary schools in order to affirm their professional character. As soon as it is possible to establish the bachelor's degree as a pre-requisite for entry to the profession, the duration of the course should be extended from three years to four. Salary scales should be revised in order to guarantee the primary school teacher an adequate salary. An Employment Scale Law should be passed in which seniority would be considered as a secondary factor for promotions, priority being given to professional preparation and even more important to the quality of the service rendered. The obligation to undertake permanent professional improvement should be legally established for the teachers in service. Obligatory retirement should be enforced.

The assigned semester courses should be related in an effective manner, balancing semesters and methodically planning teaching activities. The convenience of organizing educational activities by semesters or running them on a yearly basis should be studied.

Class sessions should be kept to one hundred minutes. Teachers should be fully versed in methods based on group dynamics. Each group of students should be given at least ten copies of all reference material and the school library enriched and revitalized. The introduction of progressive methods should be gradual and a stimulus for exchanging experiences among teachers. Groups should be limited to thirty students. Teaching aids should be available.

The organization and functioning of the teacher extension service should be reviewed so that the normal school may offer advice and supervision on a regular basis to student teachers in the communities in which they work.

The possibility should be created of granting degrees to graduates of the normal schools.

The declaration deals with the different subjects of the training course: pedagogy, psychology,
philosophy and general culture. Consideration is
given to the objectives, standardization, pro-
grames, teaching methods, use of teaching re-
sources, practical application of knowledge and
evaluation procedures. Special emphasis is placed
on 'teaching technique', taking it as a basic
pedagogic assignment.

Reference to objectives, programmes, teaching
methods and evaluation of educational activities
includes technological, artistic (plastic arts,
theatre, dance and music), physical education and
agricultural activities. Agricultural and indus-
trial activities included in the technical prepa-
ration of teachers enable them to understand the
problems of change and industrial development. It
is pointed out that these activities should be
incorporated into the professional preparation of
the student so that he may project this training
not only in teaching but in community development
as well.

It is recommended that artistic programmes
should include elements that stimulate creativity.
Theatrical activities should include formative,
educational and recreational aspects, while dance
programmes should emphasize folk dancing. The
teacher should prepare his own material for musical
education and teach the children to play some simple
instruments. A practical and accessible medical
sports report should be drawn up, containing in-
dispensable information for student health control
and physical fitness.

Educational and vocational guidance, psychotech-
nical, social and medical work are considered
specialized services. It is recommended that they
should be established in all normal schools, with
specialized personnel to direct them. Departments
should be established to co-ordinate their activi-
ties. The work of present services should be
given full support. The necessary premises, equip-
ment and special resources should be provided. The
work plan of the Guidance Service should include
student familiarization, improvement of school
benefits, and school, family and social adaptation
of students. It should also stimulate personnel
towards professional improvement. The specific activities of the Psychotechnical Service should include candidate selection, student classification, group formation, technical-pedagogical supervision of studies evaluation and some educational research. The social worker should investigate social problems regarding students, aid in the prevention and solution of student problems — being familiar with and reporting to the proper authorities the problems of the school community so that they may be treated immediately — promoting positive teacher-student relations, promoting the creation of a student job placement service wherever needed. The Medical Service, apart from providing assistance whenever necessary, should conduct permanent campaigns to form good hygiene habits among students. It should participate in the organization of sports and recreational activities. It should inform students so that they may help their families to make the best use of their income by obtaining balanced nutrition. It should collaborate in setting up the school schedule.

Indispensable school annexes should be constructed, existing school buildings adapted to new methods and future constructions planned in accordance with teaching needs. Schools should receive adequate furnishings, supplies and equipment. The allocation for laboratory material and instruments should be increased. The primary school adjacent to the normal school should be a pilot institution, and a teachers college should be organized at each school. Production and consumer co-operatives should be organized at the schools.

Full-time personnel should be selected objectively. Full-time teachers should take part in planning guidance, co-ordination and social work apart from their teaching tasks. The school government should consist of the school council, as a consultative body, the activities committees and commissions, and the community assembly, an information agency. Membership of the school council should be equally divided between teachers and students. Each school should draw up, in accordance with the Normal Education Law (as soon
as it is published), its own rules to indicate the exact functions of the organizations that make up the school government.

It is indispensable that in each school teachers academies, the psychopedagogic and educational research laboratory and the teacher extension and professional examinations commissions should be organized or reorganized. The teachers college or general assembly of professors should function at such intervals as each school deems necessary.

The legal dispositions of normal studies should guarantee and control the existence of student organizations to help in the civic and democratic formation of future citizens and should specify their range and functions. They should also promote positive interpersonal relations.

The normal school unions should protect the general interests of work centres just as private enterprise protects its workers. Permanent relations should be established between school administrations, executive committees of the union delegations and student societies in order to resolve in advance problems that might disrupt the normal routine of the institutions.

Co-ordination should be established between normal school directors and school directors of federal institutions to ensure their effective collaboration and avoid possible interference. Relations between all elements of the normal schools and the State and Federal authorities and personnel should be improved as much as possible.

Activities of normal school teachers and other personnel should be supervised. They should participate in all student activities in order to improve their image as public servants.

Abstract prepared by Dr. Blanca Jimenez Lozano, Director, National Pedagogic Institute of Mexico.
In 1966, the Secretary of Public Education suggested to the National Council for the Development of Manpower Resources for Industry the need for an investigation of the current state of education and its relations to the principal trends of the projected Mexican society of 1940. The results of this study brought to light some important aspects of the national situation, notably the growth in production and more particularly industrial production and the speed-up in the use of science and technology which characterized Mexican development, plus the increasingly complicated equipment of the productive sector, necessitating a training from the primary school stage which would inculcate the base of production techniques. On the basis of this investigation the National Centre for Productivity prepared a study entitled "Las habilidades manuales y la introducción del concepto de productividad en la escuela primaria", which gives the ideas, experiences and efforts of educational experts and institutions. The idea of learning by doing has recently taken a concrete form through the publication of these manuals.

The manuals are essentially teachers' guides and include suggestions for exercises ranging from folding, cutting out, pasting, colouring, and similar operations designed for the first grade up to simple electrical and electronic operations for the sixth grade of primary school. For each grade the corresponding manual includes recommendations for the conduct of the exerci-
an organized manner. School work should follow a carefully thought-out plan of activities suitable to the age and interests of the grade. The children should have a chance of sharing in the organization of the work and have close contact with the processes of production, distribution and administration.

When the work is being carried out it is a perfect occasion for training the children in habits of precision and order and to take care of the objects utilized for the exercise. They should have the satisfaction of seeing the finished work, thereby fostering a taste for work, a sense of personal progress and an identification with the activities.

The introduction to each manual states explicitly: 'it should be made clear that this is not just another subject added to an already overloaded syllabus, but a technique for efficient teaching of the subjects in the existing curricula and syllabuses'. Accordingly, each manual includes a table on the 'placement of activities by area', specially prepared for each primary school grade, showing the exercises, productivity concepts, materials and basic tool technology, safety standards and the vocational prospects corresponding to each of the six curriculum and syllabus areas of primary education. In addition to the exercises the manual for each grade includes an explanation of the productivity concepts used in it and full details for each of the aspects mentioned in the table. The section on vocational prospects contains occupational information for each grade and suggestions for putting together an annual evaluation file which includes cumulative data on this aspect. A bibliography is included in each handbook.
Nigeria's need for a federal inspectorate of schools: a preliminary study
12 p. Mimeogr.

In spite of the fact that Nigeria became a political unit in 1914, divergencies in educational policy and practice between the three regions (Northern, Eastern and Western) have persisted to the present day; each has developed its own system of education independently of the others. Contact and collaboration was reduced to the periodic meetings of the Joint Consultative Committee of the various Ministries of Education. In July 1969, the Federal Government set up a Committee to review the country's educational system(s) and make recommendations as to how to use education as an instrument of national unity; in September 1969, a National Curriculum Conference was held; and in October 1969, the National Council on Education was inaugurated. Made up of all the Commissioners for Education for the thirteen Governments of the Federation, one of the functions of this Council is 'to harmonize the educational policies of all the States in the Federation'. The commissioning of an expert to inquire into Nigeria's need for a federal inspectorate of schools is part of the Federal Government's effort to carry out this function. The expert (one of Her Majesty's Service Inspectors of Schools in the United Kingdom) was required...
to make recommendations not only as to how such a Federal inspectorate might be established but also as to how it might be related to the Inspectorate Divisions of the Ministries of Education of the various States.

The report is based partly on a round-table discussion which the expert held in September 1969 with the Chief inspectors of all the States of the Federation and partly on consultations with, among others, certain State Ministries of Education and the academic head of one of the country's university institutes of education.

In the course of the discussion the expert discovered a general conviction among the chief inspectors that, because of the shortage of qualified and experienced personnel, among other things, it was virtually impossible for any of the twelve States to provide an adequate inspectorate of its own. Again, some States, probably the majority, could not provide an adequate service of inspection of post-primary institutions, because the number of such institutions did not warrant the appointment of as many specialist inspectors as are needed to conduct a full inspection of a post-primary institution. Apart from the general shortage of personnel, such States needed the support of a federal corps of inspectors to maintain an adequate inspection service. It was also generally agreed that national unity in the field of education and the maintenance and the raising of educational standards throughout the Federation could only be achieved by the establishment of a federal inspectorate of schools.

Taking the foregoing and other factors into consideration the expert came to the conclusion that there was an urgent need for the Federal Ministry of Education to make available to the States a much bigger service of inspection than it had hitherto done in the past. It had rendered this service through the activities of its small body of experts called 'advisers'. These had, subject to the exigencies of their specific duties, and only on invitation, occasionally inspected institutions in
the various States (formely Regions). Increases in the schedules of duties of the 'advisers' and reduction in their numbers have reduced to the barest minimum the inspection services they could render.

The report therefore recommends that: (a) a beginning should be made with the establishment, as a matter of urgency, of a federal inspectorate by setting aside the necessary finance; (b) the Federal Government should enter immediately into formal discussion of the matter with the States and with other interested parties, including the Nigerian Union of Teachers; (c) as soon as possible a machinery for the selection of a nucleus group of federal inspectors should be set up and a beginning made with the recruitment of federal inspectors.

Since the conventional grounds for the legal validity of an inspectorial body are inapplicable in the case of the envisaged federal inspectorate, the question should be referred to the legal department for advice.

Le role of the Federal Ministry of Education should continue to be, as provided by the Constitution, the co-ordination of educational thought and development for the whole country. Nevertheless, the federal inspection of schools, a custom which has an 80-year tradition behind it, is a service which should continue to be given. The functions of the federal inspectorate should, however, be advisory only.

As regards the scope of the services, the report recommends that the inspectorate should include not only experts capable of carrying out effective inspection of post-primary institutions — at which level there is a more obvious vacuum in the present services of the States — but also experts in primary education, particularly in modern methods.

The professional relationship between the state inspectors and the federal inspectors should be based on mutual trust and esteem. This should make it possible for joint teams to carry out full inspections calling for federal assistance. While the
latter is the goal to be aimed at, it is recommended that in the early stages such full inspections would best be carried out by teams made up only of federal inspectors, who should be deployed throughout the country and not domiciled solely in Lagos.

Among the qualities and qualifications which a federal inspector should possess are: an expert knowledge; an impartial dedication to the service of education for the country as a whole; and the courage necessary to resist political influences and to express his own views freely and honestly. This combination of character and knowledge will probably be found mainly, but not solely, among graduates. To attract and retain the services of persons of this calibre, bearing in mind the peripatetic nature of the work, the remuneration offered will have to be relatively high. The relationship between a federal inspectorial service and the existing corps of federal advisers has to be carefully worked out.

In view of the shortage of personnel with the appropriate qualifications, the report suggests that a skeleton corps of 36 federal inspectors might be appointed initially, of whom about 12 should be primary specialists. The selection of federal inspectors should be entrusted to an ad hoc body of educational statesmen appointed, perhaps, by the Head of State.

Finally, the report recommends that such issues as the ultimate numbers, the balance of expertise, organization, and training of federal inspectors should be given more detailed study.

Abstract prepared by Mr. O.A. Nduka, Department and Institute of Education, University of Ibadan, Nigeria.
The question of how to re-organize the senior stage of secondary education was referred to the Central Advisory Council in June 1963 for the following reasons: there was an increased demand for training a wider variety of man-power owing to the accelerated economic growth after 1960; it was considered essential that the youth in the corresponding age-groups develop their aptitudes and select their careers wisely; more than two-thirds of the age-group which had completed compulsory education (the junior stage of secondary education) were in schools of the senior stage, and one-third remained to be educationally catered for.

It was deemed urgent (a) to define the types of men needed to serve the nation, (b) to clarify the problems of the existing institutions of the senior stage of secondary education and to expand and adjust these institutions in a comprehensive and diversified way. The Council therefore nominated separate committees to report on these two aspects and the Ministry of Education co-operated through conducting surveys and researches. After two years of deliberations interim reports from the two committees were published, and comments invited from various bodies. After further discussions in the Council, the final report was submitted to the Minister of Education in October 1966.

In the light of world trends in education, the necessity of reforming the educational system was unanimously recognized by the Council. The fundamental problems in Japan, in general terms, are these: (1) The
nation is too much given to formal schooling, it neglects education as a continuing endeavour, and it tends to attach too much importance to formal qualifications; (ii) there are widespread prejudices about occupations, intellectual ability is overvalued, and technical skills and schooling are under-valued. These shortcomings have resulted in a uniformity of education to the detriment of the free development of individual aptitudes and abilities.

Investigation of the senior stage of secondary education showed the necessity of studying its articulation with other stages of schooling. If senior stage secondary education is diversified, vocational counselling in the junior stage must be more carefully done, and higher education will be accordingly influenced. Thus, observation and guidance in the junior high schools need to be intensified and better methods developed for identifying the aptitudes and abilities of individual students.

The importance of articulation of each stage of schooling is emphasized especially that of curricula. Flexible schooling is proposed for students with superior qualities and a study of the teaching methods most suited to them is recommended. The possibilities of having a 6-year secondary school, i.e. a combined junior and senior high school should also be examined.

As to the student selection, the senior high schools are recommended to develop methods of selection based on aptitudes and abilities suitable to the various courses and on the findings of the junior high schools. In their selection of students, institutions of higher education are recommended: to make use of the high schools' records; to establish a procedure by which the results of testing are utilized; to use authorized testing services; to co-ordinate the efforts of universities, colleges and schools in order to minimize student costs.

The necessity for providing senior high school education for all was recognized by the Council, not only because the terms of reference presuppose it, but also because an official survey showed that 96% of those students completing compulsory education desire further schooling. The method for its realization was then considered, and the following questions examined. Should compulsory education be extended, or should other measures be taken to encourage continuation in school?
In the former case, should it be a full-time schooling or would part-time schooling be suitable, and if so, for how many years? How should the schooling be related to youth education?

The following principles are laid down concerning the method of realizing universal senior secondary education. It should provide a systematic education for three years for all after the completion of the junior stage of secondary schooling, and the possibility of making this senior stage compulsory in the future should be studied; it should provide a diversified curriculum and structure to suit the aptitudes, ability, and circumstances of each individual and also to meet the needs of society; and it should ensure that the general education necessary for personal development is continued throughout all types of education and training. Further, for all young people, including those enrolled in formal education, facilities for youth activities such as youth homes must be improved and expanded, and study groups, sports, club activities, and so on should be encouraged and supported.

On the organization of senior secondary education the following recommendations were made.
(1) The curriculum should be diversified to meet the demands for new specializations and manpower needs, while providing for aptitudes and abilities which will also be wider in range.
(2) Short courses should be provided as part of the senior stage of secondary education in order to develop skills needed in employment.
(3) The existing facilities for part-time schooling and correspondence courses should be expanded, and separate schools for the purpose created.
(4) Small institutes and schools of irregular types should be reorganized, and certificates of vocational aptitude made available.
(5) Existing youth classes should be transformed into institutions with a more definite role to play in the education of those young people who have completed their schooling.
(6) Co-ordinated policies should be developed so that institutions under different administrations are given an opportunity to display their distinctive merits.

With a view to making it easier to obtain authorized certificates for various occupations, co-operation between senior high schools and institutions providing training for vocational skills should be intensified,
and "credits" in senior high schools should be made easier to earn. In general, a study should be made of methods to officially examine and certify those people who possess certain levels of knowledge or skills.

The committee on the types of men best expected to serve the nation, i.e. models of men, set forth a code of values to be accepted by the Japanese people as citizens and as human beings. Its report, 'Models of Men', was included as an appendix to the main report, because it is a document with its own value and significance to be made use of by educators and statesmen generally.

On receiving the Report, the Minister of Education announced that he would make plans for the implementation of the recommendations. Thus in 1968 courses emphasizing science and mathematics were to be created in a number of senior high schools, and other courses in specialist fields were also to be expanded; separate schools which combined part-time schooling and correspondence courses are to be established; and small institutes and schools of irregular types will be improved.

Furthermore, as many of the problems dealt with should be considered in the context of the entire school system, the Central Advisory Council has been requested to deliberate on the fundamental policies to be adopted for school education as a whole.
Gakusei, or the School Code of 1872, created Japan’s first system of modern education. This study deals with the relations between the educational policies of the central government and the actual practices in local school districts in the early years of the Meiji era (1868-1912). It elucidates the processes by which the central policies were implemented in local administration in the Gakusei period, what problems had to be solved and the methods adopted. It concentrates on local reactions to the central policies.

Five themes are treated, namely (i) the organization of educational administration; (ii) school districts; (iii) the establishment of elementary schools; (iv) the district education officer; and (v) the school officer.

Organization of administrative districts. The School Code envisaged the establishment of universities, middle schools, and elementary schools in the eight university districts or 'great school districts' into which the whole country was to be divided. One university was to be established in each university district, and it was to serve at the same time as an institution of educational administration (called the bureau of supervision). Each university district was to be divided into 32 middle-school districts or 'middle-school districts', each of which was to have one middle-school and was to be administered by an education officer; each middle-school district was to comprise 210 elementary-school districts or 'small school-districts', each of...
which would have one elementary school. However, this was mostly only a paper plan, for these districts did not work well. No bureau of supervision came actually into being, but months after the promulgation of Gakusei, a joint bureau was created which eventually became a bureau of the Ministry of Education, and ceased to function as an institution of local administration. Thus the intention of Gakusei concerning local administration met a setback. For this reason districts at lower levels were not set up as scheduled, the prefectures became the centres of educational administration, and the 'great' and 'small' districts which were units of general prefectural administration became in most cases the units of school administration.

The Gakusei plan was not entirely ignored, however. For instance, an office of middle-school education was established in the Gifu prefecture, and it conducted the business of school administration under the direction of the prefectural government. In the second university district, an education congress was instituted, comprising prefectural officials of educational affairs, district education officers, and teachers of normal schools, to discuss maintenance of schools, promotion of education, education for the poor, teacher education, rules and examinations in elementary education, and so on.

School districts. The organization of school districts underwent a number of changes. For instance middle-school districts were created by dividing a prefecture into several parts, instead of dividing a university district into 32 middle-school districts as originally planned. Thus the number of middle-school districts in a university district ranged from 20 to 40 or more. The elementary-school district was supposed to have a population of 600; but this was too small to be an economic school unit, and as a result 'joint districts' had to be created to maintain schools. Furthermore, the school districts were not always the basic units for schools. In the Gifu prefecture, towns and villages were divided into school districts with a population of approximately 600, based on the 'great' and 'small' districts which were general administrative districts. A few elementary schools were created within a 'small' district. In Aichi prefecture too, elementary-school districts existed merely on paper.

The local administrators thus tended to view schools and school districts separately, ignoring the intentions of the School Code. Actual circumstances and the units
of general administration weighed more in establishing a school. Later, in the 1880s, school districts were directly based on the existing administrative units, and this brought general stability.

The establishment of elementary schools. The Ministry of Education, which had been set up in 1871, ordered an elementary school and a foreign language school to be established in the Tokyo prefecture. These schools were intended to be built by funds raised by the people and maintained by fees. The School Code, which came out the next year, prescribed almost all the items necessary for conducting compulsory education, including the establishment and maintenance of a school. Here, too, the necessary expenditure was in principle to be borne by the people instead of by the Government.

In some prefectures, private common schools had been set up prior to the enforcement of Gakusei. These were regarded as semi-public in nature, for they were set up and maintained by the united efforts of the community, unlike the older private institutes termed Terakoya. They were common schools, whose curriculum was based on 'useful knowledge' instead of on Confucianism, which was taught in the older institutions. They were a transitional form of Terakoya to the regular elementary schools of the School Code.

The prefectures that were investigated in this study had set up school districts and started to establish elementary schools in 1873. In the Aichi prefecture, for instance, school districts were created in May 1873; the whole prefecture was divided into 10 middle-school districts, and 2100 elementary school-districts were created, one for about every 600 of the population. However, it was deemed impracticable for every elementary-school district to have a school of its own, so 600 schools were created throughout the prefecture, and were distributed among the middle-school districts.

There were 430 existing private common schools which were transformed into the new elementary schools, and 170 were to be newly created. With this innovation, former private institutes were closed down. Temples, club-houses, and homes were used as temporary school buildings, and people who had some skill in the 3 Rs were employed as teachers. Dues were levied from each household in the district for the establishment and upkeep of the school.

The district education officer. Education officers were
in direct charge of school affairs in the basic unit of educational administration in the Gakusei plan. There were to be from 10 to 15 of them in a middle-school district, and their duties covered the whole range of affairs in educational administration including establishing of schools and promotion of attendance. Selected from among inhabitants of good reputation in the districts, they were appointed by local administrative officials. Often they were appointed to the units of general administration instead of to the middle-school districts as laid down in the School Code, and even in middle-school districts their numbers were often fewer than prescribed. For all that, the education officers did much towards the enforcement of the School Code, admonishing children who stayed away from school, exhorting attendance, setting up schools where needed, employing and supervising teachers, advising school officers, and drawing up reports to be sent to the prefectural office. Their meetings were held several times a year for the exchange of information and consultation.

The school officers, representing the general community, took charge of each school. Schools in the early Meiji years were built, staffed, and maintained by the contributions given by the households of the communities, and naturally they were managed by their direct representatives. The School Code did not prescribe anything about the management of each individual school, and so school officers came into existence almost spontaneously. They were de facto agents of the district education officers who were provided for in the School Code. They took direct responsibility for the employment of teachers; they saw to it that equipment and facilities were in good order; they supervised teachers and pupils; they kept the books, including the school journal; and they controlled the educational funds.

Abstract submitted by the National Institute for Educational Research, Tokyo.
Universities give their own entrance examinations in Japan now, and the practice in most cases is to admit a pre-determined number of applicants in the order of the total scores they have gained in the achievement tests the university sets in such subjects as Japanese, social studies, mathematics, natural sciences, and foreign languages. Generally speaking, no regard is taken of the year in which the applicant graduated from the senior secondary school, his academic record, or the opinion of his teachers. Only the academic performance shown in the achievement tests, that is, the entrance examination, counts. For this reason, applicants who have failed to pass the entrance examination of a prestige university they aspired to enter in the year of their graduation from senior secondary school, often prepare themselves for a year for a second attempt without being enrolled in any regular school, and it is by no means uncommon for them to work by themselves for another year for a third attempt.

Among the students who are admitted to prestige universities, there are more repeating applicants than applicants straight from school; and owing to the importance of preparation for the entrance examinations students tend to lack opportunity for personal and physical development. The four reports which follow result from a series of researches aimed at finding ways of countering these problems. Studies were made by various methods of the relationship between the senior secondary academic record, performance in the university entrance examination, and academic performance during
the university course, in order to determine (a) how effective is the work of the repeating year or years in improving the students' achievements; and (b) to what extent the academic records of the senior secondary school can be useful for the purpose of selection for university admission.

The general title of the researches is "A study of the selection of college and university students". The reports were published in four issues of the Bulletin of the National Institute for Educational Research(1).

Research No.1 compared the scores gained by three different types of entrants to six universities which attract applicants of high quality. The three types of repeating entrants were (i) entrants who sat twice for the entrance examination, in 1952 and again in 1953; (ii) those who sat twice, in 1953 and again in 1954, and (iii) those who sat thrice, in 1952, 1953 and 1954. When groups applying for entrance to the identical department of the identical university were compared it was found that: (a) the performances do not always improve on the second and third attempts in terms of the candidates' rank among all those who took the examination, and they often deteriorate in the second and third attempts; (b) improvement in mathematics has more effect in determining success or failure in the examination than does improvement in other subjects; (c) a candidate has almost no chance of success in second or third attempt, if his total score in the first was less than 50%; (d) the entrance examination performance of repeating entrants and that of entrants straight from school tend normally to be equal, though sometimes the performance of the former is better; (e) in their university work, however, entrants straight from school tend to surpass the repeaters.

In Research No.2 a large number of samples from schools and universities were taken, and a number of methods used, for the purpose of studying the relationship between performance at school, in the entrance

examinations, and at the university. The results showed that performance in school tended to be more highly correlated with university work, especially in the work of specialized fields than was performance in the entrance examinations. It was also shown that students who did well in school and passed the entrance examination in the year of completing their senior secondary schooling tended to do relatively good work in the university. However, those good students who happened to fail at the first attempt but then succeeded in getting admitted in the identical university after a year tended to do as well as their former classmates who entered the university a year earlier. On the contrary, those who did poorly at school but happened to succeed in the year of completing their senior secondary schooling did not show such good performance in the university work as the repeating students who arrived a year later.

Research No. 3 was a detailed investigation of the relationships between school reports and the university performance of entrants into better-known universities.

As there are normally several senior secondary schools in a school district some tend to attract the students of high quality. For this reason it cannot be assumed that a student marked 4.5 (5.0 being the highest mark) in a favoured school will be inferior to one marked 5.0 in another school. Such differences between schools may reduce the value of school reports in the selection for university admission.

For the department of law and economics of Kyoto University, all the applicants for the year 1958 were investigated. As these departments attracted students from all over the country, not many entrants came from any one school. The number of applicants is far greater than the number admitted.

The senior secondary schools were classified into four categories, according to their reputation in sending students to the universities (Group A, top-level schools; Group B, second-level schools; Group C, fairly well-known schools; Group D, little known schools). Comparisons were made between these four groups with regard to the performance of their students at school, in the entrance examination, in the general education subjects at the university, and in the specialized fields of the university. The following results were obtained: (a) When the performance of these groups in
the entrance examination was compared, it was found that, although the average marks that the students received in their various schools may have been the same, 4.0 for example, their performance in the entrance examination followed the order of the graded groups, A, B, C, or D, into which their schools had been categorized.

(b) In the entrance examination repeating students gained relatively higher scores in each of the groups of schools than did students taking the examination for the first time; but two-year repeaters did not always get higher scores than one-year repeaters. (c) In university work, when the average scores for the groups were compared, B and C gained higher scores than A. This may mean that students in Group A schools did better in the entrance examinations than those in other groups because they were well coached and had acquired examination techniques. (d) Comparisons of performance in university work according to their school group showed that if a student gained 4.4 or more at school, his performance would be quite as good as that of any able student from other groups, irrespective of the group to which his school belonged. In the 3.6 - 4.4 bracket, students from Group B and C did better at university than those from Group A; those from Group D did worst of all. In the bracket below 3.6 the students showing poorest performances in the university came from Group A.

Research No. 4 reported the study conducted on all the entrants in 1959 to the departments of engineering, law, economics and literature of Hokkaido University. It used the same method as in Research No. 3 and identical results were revealed. Moreover, it was found that, while a relatively poor performer in the entrance examination could do good work in the university, a poor performer in the senior high school could seldom do so. Senior secondary school performance was thus a more stable and reliable index than performance in the entrance examination.

These researches indicate: (a) that in the university entrance examination it is necessary to take into consideration whether the applicant is fresh from senior secondary school or is a repeater; (b) efficiency of selection for university will be heightened if the students' senior secondary performance (school reports) is also taken into account.

Educational administration in Japan is conducted at the three levels: the state, the prefectures and the municipalities. The state forms basic policies and main guidelines for education, and the 46 prefectures take charge of the entire field of administration in primary and secondary education, acting on the national policies. At the local level, some 3,400 municipal boards of education (one for each municipality, that is, for each basic unit of administration called a city, town or village) take the responsibility of managing educational affairs, mainly at the level of compulsory education.

The Local Education Law was enacted in 1956, and the organization and management of local educational administration are under debate. The research reported here aims at analyzing the functions of the local education authorities (boards) with a view to defining the problems to be solved and thus producing data useful for the work of improvement. The survey was based on stratified and random samples which constitute one-third of the total number of local boards all over the country.

The organization of local education boards. The basic administrative units in each of which a local education board functions vary greatly in size. Classification by population shows that 60% of the total are in units with a population of less than 15,000. There is no difference in the items under their jurisdiction between the boards in these small units and those in very...
big cities.

Educational policies are made by the members of the board and the school superintendent, who is also a member, for he is co-opted from among the members. Members are normally five in number, and generally they are men over the age of fifty with some teaching experience. City school boards tend to include more women members; small boards tend to include fewer members with teaching experience. The present law requires that the local superintendent should be appointed with the approval of the superintendent of the prefectural board of education. Large school boards tend to insist on autonomy and criticize this prescription in the present law.

The secretariat for the school board is the executive office, consisting of the superintendent as the chief, assisted by specialists, clerks, technical experts, and other personnel. Small boards are not very well staffed, about two-thirds having only five staff members or less. Many of these small boards are anxious to have their staffs increased. A balanced division of work seems to be made possible only in boards which operate in administrative units with a population of 50,000 or more.

Personnel administration of teachers. Personnel changes (retirement and transfer of teachers) in the total number of teachers in public primary and lower secondary schools amount to 16.5% in a year on the national average, and 20% in the case of headmasters, i.e., on the average, teachers change schools every six years and headmasters every five. The rate is fairly uniform among boards according to the type of transfer. In small boards the majority of the transfers are made to other boards in the same prefecture, and very few are made to schools under the same board. The contrary tendency is observed in the work of larger boards. This causes various degrees of difficulty in personnel administration according to the size of the board.

Personnel changes within the jurisdiction of one school board may be administered autonomously; but, when most of the changes are transactions with other boards, something tantamount to delegating the power to the prefectural board must be accepted by the school board. Thus it is commonly felt that the power of recommendation exercised by smaller boards on personnel changes is only nominal.
Boards of all sizes report that administration concerning retirement of teachers is one of the difficulties. This is attributable to the fact that there is no age-limit clause in the law, and teachers are expected to retire on the advice of controlling authority. This advice is given to teachers beyond a certain age, according to the practices codified in the several prefectures.

In-service training of teachers. A study of the opportunities provided for the in-service training of teachers at various levels brings to light differences in the degree of participation by teachers. The state does not organize many courses, and accordingly the participation ratio of teachers is quite low. On the other hand, courses given by the prefectures and by groups of schools are frequent and well attended. However, those organized by local boards vary greatly in the scope of the work, because of the differences in their administrative functions. Generally, it is difficult for a board with a population of less than 100,000 in the background to organize adequate in-service courses. These depend upon the availability of specialists and teacher-consultants.

Improving the administrative functions of local boards. The following is a summary of the improvements suggested by the school boards to enable them to carry out adequately the administrative functions prescribed in the law: (a) an increased and assured education budget; (b) the understanding and the support of the administrative authority of the municipality; (c) a bigger and stronger staff for the secretariat. In spite of the general agreement on these points, some differences of opinion occurred between boards in districts of different sizes, arising from the various degrees of administrative functioning.

The adequate size of a school district. The boards of districts with a population of less than 5,000 and those of over 100,000 have similar legal powers and duties. These differences in size, however, inevitably give rise to differences in the manner of administration. What is the smallest size (in terms of the population) for the district to be adequately administered by a school board? This has been the topic of studies and discussions for quite a long time. About 50 per cent of the answers from small boards, and a similar percentage of those from medium-size boards reveal that they are in favour of larger standard sizes. On the other hand,
over 90% of boards with a population of 50,000 or more are satisfied with their present size which gives them sufficient stability.
The proportion of private institutions in the structure of school education in Japan is so high that it is perhaps reached by few other countries in the world. Recent developments in private education are understandably accompanied with a number of problems, but accurate information about private schools in this country is not always available. This document elucidates facts, problems, and statistics concerning private education at all levels, including institutions of higher education. It is based on data prepared for the use of the Investigation Committee on Policies for the Promotion of Private Schools, an advisory committee set up by the Minister in April 1965.

In this abstract, most attention has been given to higher education, because this field seemed to be freer from national peculiarities. The emphasis has been placed on enrolment, finance, and legislation, and many topics, such as teachers, buildings, students, their homes, teaching and research conditions, exemption from taxes, descriptions of counterpart systems in selected countries, included in the Ministry's publication have had to be omitted here.

General statistics. Private schools in this country have played a very significant role side by side with the public school system. The number of private institutions of higher education and the number of their students have always accounted for 50 to 60% of the whole; the percentages in senior secondary and kindergarten education had reached approximately the same...
level in 1943. The corresponding figures for primary schools, on the other hand, had drastically dropped, to less than 0.5% of the whole, with the progress of the compulsory (and therefore, normally, public) system of schooling. The present figures are given in Tables 1 and 2.

Policy. The post-war guidelines for the policies toward private education were these: (a) There is to be no intrinsic difference between education provided by the public and the private schools, except in the religious education given by some private schools; (b) some financial support should be given to private schools to supply deficiencies; (c) public funds available for the rehabilitation of schools should be distributed on an equal basis to both public and the more efficient private schools; (d) donations to private schools should be exempt from taxes at the same rate as are public schools; (e) minimum standards should be required of private schools, but in other respects they should be assured of perfect autonomy.

Legislation. The public nature of private schools and the provision that only a corporation as provided by the law can establish a private school were laid down in Section 6 of the Fundamental Law of Education, 1947. That private schools can now be established by a 'school corporation' instead of a 'foundation' as hitherto stipulated has made easier the creation of new schools.

The School Education Law, also of 1947, provided that items such as statutes, rules, the amount of student fees, the appointment of teachers — which up till then were approved by the authorities — could be decided by the private school after notification only. (Teachers are required to be certificated.)

In 1949, the Private School Law was passed and came into effect in the following year. This law, among other things, provided that public monies could be expended on private schools. It was also provided that private institutions of higher education be placed under the jurisdiction of the Ministry of Education and private schools under that of Governors. Under this law, the Ministry provided a number of grants for private education, for such purposes as the rehabilitation of war-devastated schools, the construction of buildings, vocational education, science instruction, welfare and pension systems of the teachers.
Table 1. Numbers of the private schools and students in 1967.

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>196.6</td>
<td>15.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.7</td>
<td>21.7</td>
<td>51,958</td>
</tr>
<tr>
<td>196.8</td>
<td>12.7</td>
<td>51,958</td>
</tr>
<tr>
<td>196.9</td>
<td>11.7</td>
<td>51,958</td>
</tr>
<tr>
<td>196.10</td>
<td>10.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.11</td>
<td>9.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.12</td>
<td>8.6</td>
<td>51,958</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>196.8</td>
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</tr>
<tr>
<td>196.9</td>
<td>11.7</td>
<td>51,958</td>
</tr>
<tr>
<td>196.10</td>
<td>10.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.11</td>
<td>9.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.12</td>
<td>8.6</td>
<td>51,958</td>
</tr>
</tbody>
</table>

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<th>Private</th>
<th>Total</th>
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</thead>
<tbody>
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<td>196.6</td>
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<td>51,958</td>
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<tr>
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<td>51,958</td>
</tr>
<tr>
<td>196.8</td>
<td>12.7</td>
<td>51,958</td>
</tr>
<tr>
<td>196.9</td>
<td>11.7</td>
<td>51,958</td>
</tr>
<tr>
<td>196.10</td>
<td>10.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.11</td>
<td>9.6</td>
<td>51,958</td>
</tr>
<tr>
<td>196.12</td>
<td>8.6</td>
<td>51,958</td>
</tr>
</tbody>
</table>

School-College is a combination of upper secondary (3 years) and higher education (2 years). Mostly in technology.
### Table 2: Increase of number of the private schools and students in percentages

<table>
<thead>
<tr>
<th>Year</th>
<th>Kindergarten No. of Schools</th>
<th>Kindergarten No. of Students</th>
<th>Junior College No. of Schools</th>
<th>Junior College No. of Students</th>
<th>Upper Secondary No. of Schools</th>
<th>Upper Secondary No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>136</td>
<td>134</td>
<td>157</td>
<td>151</td>
<td>100</td>
<td>110</td>
</tr>
<tr>
<td>1967</td>
<td>176</td>
<td>174</td>
<td>220</td>
<td>217</td>
<td>136</td>
<td>143</td>
</tr>
<tr>
<td>1977</td>
<td>196</td>
<td>194</td>
<td>270</td>
<td>267</td>
<td>171</td>
<td>173</td>
</tr>
<tr>
<td>1992</td>
<td>196</td>
<td>193</td>
<td>290</td>
<td>287</td>
<td>290</td>
<td>287</td>
</tr>
</tbody>
</table>

Note: Lower Secondary and Primary Schools (private) are rather stable in their numbers.

(1955=100)
In 1952, another law established the Private Schools Promotion Society, with the function of making loans, from sources funded by the Ministry, to private schools for longer terms and at lower rates of interest.

Enrolment statistics. Percentage of students by field of study for all university students in 1967 are:

<table>
<thead>
<tr>
<th>Total</th>
<th>Private Universities</th>
<th>National Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Humanities</td>
<td>57.7</td>
<td>67.2</td>
</tr>
<tr>
<td>Sciences</td>
<td>31.5</td>
<td>26.7</td>
</tr>
<tr>
<td>Others</td>
<td>10.8</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Classified by sex, the percentages of university students are:

<table>
<thead>
<tr>
<th>Total</th>
<th>Private University</th>
<th>National University</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>82.3</td>
<td>83.1</td>
</tr>
<tr>
<td>Female</td>
<td>17.7</td>
<td>16.9</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

It should be noted that the proportion of female students in national universities include students in teacher education. The figures are reversed in junior college students:

<table>
<thead>
<tr>
<th>Total</th>
<th>Private Junior College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>18.7</td>
</tr>
<tr>
<td>Female</td>
<td>81.3</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

The rapid increase of the number of junior colleges, their number in contrast to that of universities, and the proportion of private ones show that this form of higher education meets the needs of a considerable proportion of young people, especially girls, intending to go on to higher education.

Evening sessions are given in some universities.
and in the year 1967, 119,035 evening students were in private as against 4,870 in national universities.

Primary and secondary school statistics. Private junior secondary schools and primary schools accounted in 1967 for only 5% and 0.6% respectively in the total number of schools of those levels. There are very few independent schools, for they usually form part of the work of 'school corporations' which run schools of other stages.

Finance. In 1965, the revenues of selected categories of private school were classified as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>University</th>
<th>Junior College</th>
<th>Upper Secondary School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student fees</td>
<td>43.9</td>
<td>52.8</td>
<td>68.1</td>
</tr>
<tr>
<td>Income from enterprises (hospitals, etc)</td>
<td>12.2</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Grants</td>
<td>1.5</td>
<td>0.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Donations</td>
<td>7.1</td>
<td>4.9</td>
<td>5.0</td>
</tr>
<tr>
<td>Others</td>
<td>7.3</td>
<td>6.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Loans</td>
<td>27.8</td>
<td>34.6</td>
<td>19.7</td>
</tr>
</tbody>
</table>

In 1965, the expenditures of selected categories of private schools were classified as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>University</th>
<th>Junior College</th>
<th>Upper Secondary School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>26.9</td>
<td>24.6</td>
<td>36.4</td>
</tr>
<tr>
<td>Other current expenditure</td>
<td>20.3</td>
<td>12.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Equipment</td>
<td>6.7</td>
<td>5.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Site and construction</td>
<td>27.1</td>
<td>41.1</td>
<td>26.9</td>
</tr>
<tr>
<td>Sinking Fund</td>
<td>19.0</td>
<td>16.2</td>
<td>20.1</td>
</tr>
</tbody>
</table>

In 1965, the loans contracted by private universities were provided as follows: from the Private Schools Promotion Society, 18.9%; local societies of similar type, 0.2%; banks, etc. 45.2%; school bonds, 7.4%; other sources, 7.5%; short-term loans from banks, etc., 20.8%.
The average student fee of universities increased as follows:

(1955=100):

<table>
<thead>
<tr>
<th>Year</th>
<th>Private univ.</th>
<th>National univ.</th>
<th>Price index</th>
<th>Per capita Nat'l Income Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>325.5</td>
<td>200.0</td>
<td>145.8</td>
<td>317.9</td>
</tr>
<tr>
<td>1967</td>
<td>369.0</td>
<td>200.0</td>
<td>159.2</td>
<td>---</td>
</tr>
</tbody>
</table>

The average real sum of the private university student fee for 1967 was 77,110 yen, while that of all national universities was 12,000 yen (360 yen=1 U.S. dollar).

The report of the Investigation Committee after stressing the intensification of the various policies hitherto followed, points out that, since sinking funds for loans constitute the greatest strain on the financing of private schools, measures should be taken to help shift loans on unfavourable conditions to better and longer-term debts; that a number of schools are not up to the legally required standards; that measures be taken to check the too easy establishment and expansion of private institutions; and that inferior schools be induced to be reorganized or abolished.

<table>
<thead>
<tr>
<th>Author</th>
<th>Sagara, Iichi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>'Kokusai Kyőiku Gyosei Shiron'</td>
</tr>
<tr>
<td>Translation</td>
<td>'Some ideas on international educational administration'</td>
</tr>
</tbody>
</table>

**Classification** (for the use of receiver)

<table>
<thead>
<tr>
<th>Country</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>6</td>
</tr>
</tbody>
</table>

**CEAS**

Abstract No. 68.6 E

Date of issue: March 1969

**Keywords**

- nationalism
- internationalism
- regionalism
- human rights
- international law
- world government
- educational administration
- international administration
- international agencies
- international secretariat
- regional agencies

The term 'international educational administration' can denote two things: educational administration that is international in scope and administration for the advancement of international education.

Educational administration that is international in scope will take place when its operation covers a number of countries or regions. Administration is generally speaking thought of as a function effective within a single country; however, activities in education as well as in other fields such as labour, health, etc., have in recent years been assuming forms which have involved international administration. World government is a commonly accepted idea today, and this presupposes international administration of some sort. Educational administration functioning on a world-wide scale may then emerge as a department of international administration.

International educational administration may, however, also be construed as meaning administration for the advancement of international education. Now international education itself is a term which seems to be used in a number of ways, but in all cases it denotes education with less emphasis on education as an item of national sovereignty. People do not now think of education only in strictly nationalistic terms, and they have realized the needs for and the values of cross-cultural activity. Unesco takes a strong leadership in the direction of education for international understanding and co-operation.
Thus we have two ideas: the international administration of education, and administration for international education. Both are important, and they are not really as separate as they appear. In this article the former, educational administration serving education throughout the world, will be studied.

Postulates of international administration. Administration postulates constitutional government or rule by law. This guiding principle which originally governed domestic politics applies also to world politics and world administration. The enforcement of international rules, as well as of treaties and agreements, bilateral and multilateral relating to education is international administration of education. Now treaties are concluded by the state, as a function of the cabinet, to be ratified by the national assembly. The consensus of theories seems to be that a treaty takes precedence over domestic laws under the constitution. Some contend that it takes precedence even over the constitution of a state. International rules (treaties, laws, agreements, and recommendations) relating to education and culture are increasing in number.

The effectiveness of these, and the safeguards against failing to abide by them, will not be dealt with here because this is a problem to be considered in connection with treaties in general.

Basic principles of international education administration. These basic principles are: (a) internationalism; (b) non-intervention in domestic affairs; (c) regionalism; (d) regard for human rights; (e) advisory administration.

(a) Internationalism. This is a concept which admits a community beyond each separate state and, at the same time, denies the absolute sovereignty of each state. State sovereignty, though highly respected, is to be subject to restrictions set by treaties and other agreements between states. Moreover, a state, though independent, is called upon to co-operate in forming the international community, to take part in the international community and to share the responsibility of maintaining it. Extreme nationalism or racism may be incompatible here.

The supranational community is the world community in UNESCO's terminology, the acceptance of which is the prerequisite for the suppression of excessive assertion of nationalism. It must be noted that education and culture which deserve the names are predominantly and
essentially international; they tend to be possessions of the world.

(b) Non-intervention in domestic affairs. It has been seen that the proposed internationalism is one which respects fully the sovereignty of each country, as stated clearly in the Charter of the United Nations (Chapter 1, Article 2 (7)) and the Constitution of Unesco (Article I.3). The Article in the U.N. Charter referred to above prohibits intervention in 'matters which are essentially within the domestic jurisdiction of any state'. If this were to be strictly and broadly interpreted, all matters relating to education would fall within the domestic jurisdiction, and there would be no room for international educational administration. But clearly this is not the purport of the Article; it expects co-operation from each state while respecting its sovereignty. Unesco's Constitution has a regard for the independence of states, yet the activities of Unesco have in certain ways affected education in each participating country.

(c) Regionalism. Decentralization is desirable in international politics and administration as well as in domestic government. It is a generally accepted practice to divide the world into regions comprising countries which share in certain characteristics and problems. Regionalism, as provided for in Chapter 8 of the U.N. Charter, is the basis of decentralization in the international sense. The Unesco regional offices help the administration in each country in the region.

(d) Regard for human rights. Mankind has believed in this especially since the turn of this century; today it is the principle in domestic politics in all the countries; it is hardly necessary here to refer to the Preamble of the Unesco Constitution or to Chapter 1, Article 1(2) and (3) of the U.N. Charter, or to the World Declaration of Human Rights in 1948.

(e) Advisory activities. We speak of two types of administration in domestic government; advisory and supervisory. The international administration of education is of the former type, because it cannot as yet depend on any functional rule by law. Its development falls behind those of international legislation and jurisprudence. International administration can at present concentrate only on advisory and liaison functions. In the activities of Unesco, co-operation by participants is what power is in supervisory adminis-
tration (the Unesco Constitution Article I (1) and (2)b). It should be noted, however, that even if a more definite world community is established and international administration is more active, educational administration will probably remain basically advisory, since this is its general tendency.

Administrative agencies. The important point in the organization of any administration is who or what body exercises the main functions. The bodies that take responsibilities in various fields of international educational administration include Unesco, ILO, OECD, and IBE.

The scope of educational administration. Educational administration will affect both externa (finance, equipment, personnel, etc.) and interna (objectives, curriculum, and methods). Some contend that attempts by public authorities to regulate interna which are the teachers' domain constitute 'undue control' (cf. The Fundamental Law of Education, Japan, Article 10), but this is not the general view. The state may not try to regulate interna, but generally it takes part in some way or other in influencing such matters.

Similarly, the interna of education are more and more the concern of international educational administration. For example, in the international field, Unesco has set up advisory committees for the improvement of curricula and methods, and the Conference for Research in Education in the Asiatic Region held in Tokyo in 1967 appointed a committee on 'educational objectives'. On the other hand, the externa, especially educational planning and investment, are tackled by Unesco and OECD as priority problems.

The problem of the status of school teachers may involve personnel administration at the world level. The ILO Treaty No. 87 and the Unesco Recommendation on the Status of Teachers are examples. In the future, it is probable that such bodies will conduct investigations to make recommendations in specific cases.

There is every possibility that administration relating to textbooks will be taken up by Unesco so that the contents may be more in line with international understanding and co-operation and also that textbooks adopted may better meet the needs of the students.

The education of adults and young adults has long
been the field most energetically attacked by Unesco. Illiteracy, basic education, training of leaders are the activities on which special stress has been laid. Other activities of Unesco, e.g., in science and culture, may also be viewed as aspects of its administration of education in the broad sense.
While wastage, defined as the number of dropouts or grade-repeaters, is very low at most points in the Japanese education system, it is very high between the completion of senior secondary schooling and admission to higher education. Colleges and universities set their own entrance examinations; hundreds of thousands of senior secondary school graduates fail in these and often wait another year or even two for further attempts.

If it is admitted that the entrance examination set by a college or university does not always lead to the selection of the right students, the wastage is serious in two ways: for the weaker students who were wrongly selected and the stronger ones who were wrongly rejected—both have to spend an academically unproductive year or two. This is considered as one of the major problems in Japanese education, because the importance given to the entrance examinations has, it is contended, warped both secondary and higher education.

It was thought that a system of common external tests of ability and aptitude, both academic and vocational, might remedy the situation. The tests could be more scientifically constructed; the selection of entrants could be done on the accumulated results of repeated tests, instead of a single, 'sink or swim' type of examination. This would mean a saving of time, money and energy; the university could still set its
own entrance examinations it could provide senior high schools with data which would make career guidance more effective. Accordingly a national Educational Test Research Institute, not a governmental one but an independent corporation, was set up in 1963, whose work is to conduct such tests on the top-graders of senior high schools.

In 1966, when the testing started, colleges and universities were not enthusiastic. Out of over 800 institutions, only 23 offered to participate, and only 4 of the 23 made E.T.R.I. results their admission requirements.

The article abstracted attempts to show the reasons for this lack of interest on the part of the universities.

The author gives an account of the committees on selection methods in his own university, and also analyses responses to an opinion survey conducted on the staff of his university with regard to the E.T.R.I. external examination system. The author thinks there is good reason to believe that the opinions of his colleagues are fairly representative of those generally held by colleges and universities in Japan. The author tries to answer the more important of the criticisms.

That E.T.R.I. test questions published so far are generally very well constructed is almost unanimously admitted by the specialists in each field.

Common criticisms of the E.T.R.I. tests are, first, as they are of the multiple-choice type, there is a probability that random responses will be counted as correct; and secondly, the so-called objective tests fail to measure other abilities than that of responding correctly, e.g. the ability of independent thinking. The answer to the former criticism is that distortions caused by possible random responses are eliminated by statistical techniques; to the latter, that objective tests measure one of the basic conditions for independent thinking and, if properly constructed, they can cover a considerable sector of such thinking. It would be practical for universities to let the E.T.R.I. test that part of ability which objective tests will measure and to set subjective, i.e., essay-type or skill tests themselves.

In the selection procedure it would be for the universities themselves to decide what weight should be given to the E.T.R.I. tests and to their own examin-
Many critics contend that it is too early to adopt E.T.R.I. tests, on the grounds that there is as yet no evidence that they are more valid than the traditional examinations. But neither is there evidence that the converse is true. Statistical studies show that the one is at least as reliable as the other.

Some argue that the follow-up study of E.T.R.I. tests has been done only up to the second year of higher education, which deals mainly with general education, and that the findings, therefore do not apply to the specialized courses which are the main part of higher education; thus they conclude that any talk about the validity of E.T.R.I. testing is premature. A past study shows that the results of the scholastic aptitude tests conducted for several years were more highly correlated with performance in specialized courses than with performance in general education courses; whereas with the results of the entrance examinations given by the universities the relationship was reversed. If this is so, E.T.R.I. aptitude testing should be used for the prediction of performance in the specialized courses.

Some university teachers fear that students in the senior secondary schools may cease to work hard for the rest of the school year after the final E.T.R.I. tests. This will not be the case if the universities are going to set their own examinations as well; but even if not, the secondary-school teachers themselves are under no apprehension of this sort.

E.T.R.I. testing is also criticized as leading to segregation in school; but the standards of the E.T.R.I. tests are such that no greatly differentiated preparation or coaching at school is necessary.

Other critics are more class-conscious and argue that this testing system purports to select highly talented students who will be faithful servants of monopolistic capital. There is also a political objection to it. Some progressives in education and teachers' unions warn that E.T.R.I. testing will be followed by more control of education by the state, for E.T.R.I. test questions are faithfully based on the Courses of Study prescribed by the Ministry of Education. The Courses of Study, themselves, or the fact that they are prescribed by the state, may be open to criticism,
but if so, it is these that should be revised or amended. The E.T.R.I. testing, the Courses of Study, and national control of education are in no way logically connected. Apart from such political comments, it is true that educators tend to resent the tendency of making education ancillary to industrial development, and hope that the state will pay more attention to the role of education for the national welfare.

Finally, some teachers think that there is no reason why their university should rush in where their neighbours fear to tread and that there must be something wrong with the testing when so few universities have so far adopted it. These are obviously considerations of external trends which should not influence a university or a college which strongly believes in its autonomy.

Judging from this local survey it appears that a little over half of the teachers in higher education are against the adoption of E.T.R.I. testing as a method of selection. Perhaps connected with this conservatism is the fact (which the survey revealed) that the academics in general have only partial or incorrect information on the innovation.

Fewer colleges and universities are to participate during 1968, and the justification for E.T.R.I. testing is itself being questioned.
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<td>Title</td>
<td>'Yōji Kyōiku Gimuka no Shomondai'</td>
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<td>Translation</td>
<td>Compulsory early childhood education—problems</td>
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Under Section 1 of the School Education Law, the kindergarten is included as a type of school in the Japanese educational system in recognition that an institution should exist for early childhood education, for which the home should not be held solely responsible.

Though the kindergarten is included in the types of school covered by the School Education Law, it is still mentioned as something additional. This shows that it has not yet fully attained the status of an institution of universal education, available for all children, compulsory and free.

A Joint Circular of the Ministries of Education and of Welfare in October 1963, however, directed the local authorities to concentrate on the education of 4- and 5-year-olds in kindergartens, because it was envisaged that early childhood education would become compulsory in the future. Lowering of the compulsory school age and compulsory early childhood education do not mean merely compulsory kindergarten education. The crucial point is that kindergarten education would become the first cycle of the educational ladder. Administrative and financial arrangements must be studied and implemented to enable the local authorities to cope with the obligation placed on them.

This article examines some of the problems involved, and makes proposal for compulsory early childhood education.
The author's first point is that early childhood education should be run separately from primary education. The 'Seven-year scheme for the promotion of kindergarten education' published by the Ministry of Education in 1964 proposed, as one of the measures to increase places, to make use of rooms not needed in the primary schools. The danger in this policy is that kindergarten education may be made part of primary education, if the surplus facilities and personnel of primary schools, whose population is decreasing, are diverted to this purpose.

It is true that the education of the 5-year-olds forms part of primary education or is largely conducted by elementary schools in the United Kingdom and the United States, but it is not desirable in Japan, where undue emphasis is apt to be placed on intellectual development, in order that the child may successfully pass a series of entrance examinations leading to higher education. There are still other temptations to earlier intellectual training, e.g., the rapid strides made by science and technology and the recent accelerated maturation of young children.

It should be remembered that while articulation between kindergarten and primary education is important, the former should not be a mere preparation for the latter; each has its own goals, and the fields into which kindergarten children are introduced are different from school subjects. In short, the nature of kindergarten education must be clearly understood. That is the purport of the revised 'Program of kindergarten education' (Ministry of Education, 1964).

The author's second proposal is that the care provided by nurseries and the education given by kindergartens should be unified. The former are supported by the Ministry of Welfare; the latter by the Ministry of Education. They both cater for children of 3 to 5 years of age, but have different policies and are differently financed.

The Constitution and the Fundamental Law of Education state that every person is entitled to equal education, according to his ability. Therefore, these two lines of education obviously cannot be tolerated simply because some children 'lack care', owing to socio-economic reasons, or to the health of their parents, or to the lack of kindergartens in the locality. If these two types of institution are to have a more
public nature their functions must be educationally unified.

The Joint Circular promises that, in anticipation of compulsory early childhood education, education comparable to that provided in the kindergarten will be given in the nurseries. Some children who lack care for family reasons may still have to remain in the nurseries; all others, who are there by so-called 'free contract', will be transferred to kindergartens, many more of which will be opened. The circular also describes schemes of teacher-training and school construction. Other problems to be settled are: the articulation of education for older children and care for younger ones, administrative adjustments between the two ministries, and care for children who need it after school hours.

The third point concerns the co-ordination of public and private kindergartens. In early childhood education, private or voluntary efforts have always been greater than those of the Government. The present number of kindergartens is: 38 state, 3,311 municipal, and 5,691 private. Per capita expenditures are about the same, but the parents of private institutions bear 2.5 times as much expense as do those of public ones. Governments (central and local) expend approximately 150 times as much for public institutions as for private ones, which obtain some government grants.

In making early childhood education compulsory, it would not only be impossible but also unwise to try to change all private kindergartens into public ones, because of their number, past work, and future mission. The Government should provide them with more financial support in order to equalize the expenses of the parents who also pay taxes to support the public system of education.

It would be practically impossible to make early childhood education compulsory at a stroke, because the existing institutions are so unequally distributed throughout the country. The initial step should be to realize free education for all pre-school children, first for the 5-year-olds, then the 4-year-olds. Finally, there could be compulsory education for the 5-year-olds.

Fourthly, the author points out the necessity of providing more places, of doing away with the local differences, and of securing a sufficient number of competent teachers. The 'Seven-Year Scheme' proposes...
to establish 3,000 more kindergartens throughout the country, so that each municipality has kindergartens at the ratio of one institution (120 places) for each 10,000 of population. It also proposes to raise the salaries of the teachers to the level of those of primary school teachers.

The scheme has not so far progressed satisfactorily. Private institutions are increasing yearly by ten times as many as envisaged in the scheme, while only half the planned number of public ones are being built. Before making attendance compulsory, the local authorities should be compelled to construct more kindergartens, that is to say, financial arrangements must be made, and long-term planning committees must be organized in each administrative body.

The Ministry plans to train 18,000 kindergarten teachers by 1970 through expanding relevant courses in Colleges of Education. In-service training should also be improved and intensified, since 35% of private kindergarten teachers are teaching with temporary certificates.

The Council on Curriculum Improvement (chairman: Kazuo Kinoshita) submitted to the Minister of Education on 6 June 1968 its final report, 'On the Improvement of the curriculum for the lower secondary school' (i.e. the 3-year junior high school). The report pointed out, that the current curriculum had been in use since 1958 and needed revision to cope with new developments such as the improvement in the standard of living of the nation and in the level of national culture, recent social developments, and the increased importance of Japan in the world community. The report suggested changes in the courses of study, which are prescribed nationally in Japan, and also in school textbooks, and recommended that school facilities and equipment and teacher education be improved.

Part I of the Report deals with the general content and organization of the curriculum. Part II goes on to define the objectives and content of the separate subjects, but it is not included in this abstract.

The aim of junior secondary education. As prescribed in the Fundamental Law of Education and also in the School Education Law, the junior secondary school should provide education suitable for the mental and physical development of the students on the foundations laid by primary education. It should aim: (a) to give a better understanding of nature, society, culture, and to stress the nurture of abilities and attitudes necessary for this; (b) to develop the harmony and unity of the personality, especially to improve health and physical strength.
to nurture creative thinking and imagination, to cultivate rich sentiments, rational attitudes, self-control, and especially the practical will to work; (c) to nurture qualities required of members of the family, the community and the country, to foster the spirit of international understanding and co-operation and willingness to help promote world peace and welfare of humanity; (d) besides arousing consciousness of their individual missions in society, to cultivate the ability to select their own future careers, especially with recognition of their own individuality.

Organization of the Curriculum. The curriculum should be organized with harmony and unity in order to realize the aims stated in Chapter 1. The curriculum should comprise Japanese, social studies, mathematics, science, music, fine arts, physical education, industrial arts or home-making, foreign language, agriculture, industry, commerce, fishery, and other subjects; moral education; and extra-curricula activities.

Japanese, music, fine arts, physical education, industrial arts or home-making, moral education, and extra-curricular activities should be required in all grades. Foreign languages should be elective in all grades, as they are in the current curriculum. Agriculture, industry, commerce, fishery, and home-making should be taught in the third year.

The curriculum should be adapted to the actual state of the school, community, and students' experiences and stage of growth. Special consideration should be given, so that guidance may be more adapted to the students' abilities, especially to meet the needs of those who find it difficult to work with other students. For this purpose, exceptions may be allowed in the organization of the curriculum.

The objectives and the content of the individual subjects, and of moral education and extra-curricular activities, should be laid down with special regard to the following points. (a) While articulation with primary school education should be preserved, articulation with education in the senior secondary school should also be carefully studied. (b) The objectives should be more clearly stated, and, as for the content, basic items necessary for attaining the objectives, should be carefully selected and condensed, and should have regard to the developments of the times, the physical and mental growth of the students, and the logical
organization of the subject-matter. (c) In selecting
and treating the content, and in considering teaching
and guidance methods, the students' individualities,
abilities, and characteristics should be taken care of.
(d) A close relationship should be maintained between
the individual subjects, moral education, and extra-
curricular activities.

Number of periods (Chapter 3). In consideration of the
physical and mental growth of the students and proper
management of the school, the number of periods annually
devoted to individual subjects, moral education, and
extra-curricular activities should be as shown in the
table, so that a curriculum with harmony and unity may
be attained.

<table>
<thead>
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<th>Required subjects</th>
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<tr>
<td>Social studies</td>
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| **Total number of periods**                | 1190| 1190| 1190|
Notes to the table: (a) A period in the table normally represents 50 minutes but where it suits the school or the students, it may be reduced to 45 minutes; (b) the periods should be spread over 35 weeks in the school year; (c) the period devoted to electives and accretions may be allocated to more than one elective, or they may be used to increase the periods of various subjects or club activities; (d) instruction should be so planned that it is given on more than 240 days in a school year.

The Central Council for Education, with Tatsuo Morita as chairman, published in November 1968, the interim reports of the three committees which had been formed to deliberate on basic policies for the expansion and improvement of school education. The final report of the Central Council is expected in the latter half of 1969.

The 21st Committee examined the people's needs for education and the opportunities of education provided; society's demand for manpower and the supply of graduates. The 22nd Committee examined the development of the school system and changes of educational principles. The 23rd Committee examined the development and growth of the national economy and the increase of educational expenditures by level; sources of national expenditure on education.

Report of 21st Committee. School education in Japan has expanded always in proper balance with increases in (a) the level of schooling of parents and society at large, (b) the proportion of educational expenditures in the economy, and (c) the per capita income of the people. Viewed in this light, the large increase in enrolment after the Second World War is far from remarkable.

The post-war reform in the system of education, the establishment of the principle of equality of the sexes, and the more liberal regulations on private schools brought about expansion in secondary education.
and brought higher education for women into a still better balance with the other factors. The tendency is for the nation to invest more and more in education, and particularly at the higher stages of schooling.

The fact that the competition rates in the entrance examinations of institutions of higher education tend more or less to be equal shows that many students are influenced in the choice of courses not by their particular needs but by other inducements, such as the easier competition rates. Dentistry and pharmacy are exceptions to this tendency, and shortage of accommodation is a major factor here. In general, the number of applications do not necessarily represent the nation's needs for particular courses.

Of the students who fail to be admitted into colleges or universities in the year in which they graduate from the senior secondary schools, about 95% find their way into higher education within two years.

Kindergartens and nurseries, which have rapidly increased in number in the past twenty years, take in children from the same age groups, and there seems to be no guiding principle as to which of the two would be preferable for a particular district. They appear to carry out each other's functions according to the need. There is a very uneven local distribution of public institutions at this level.

Further studies are needed on the following points. (a) The past growth in enrolment has not been extraordinary; it is to be expected, therefore, that the nation's demand for secondary and higher education will continue to rise. (b) In planning the accommodation for the various fields of study in higher education, a comprehensive study should be conducted, taking into account that students are influenced by the competition rate in making the choice, and also considering the man-power policy of the country as a whole. (c) Compulsory education should be made complete by eliminating non-enrolment and long-term absenteeism. Attention should be paid to the fact that many children who are at present not in any school are eligible for schools of special education, and that the proportion of long-term absenteeism varies greatly from community to community.

The report points to a number of measures for improving the survey of the national man-power and
schooling needs. Comprehensive research should be undertaken to estimate the effectiveness of the increased level of schooling in relation to the nation's socio-economic and cultural growth. Basic principles need to be formulated on the proportion of general and specialized education needed at the secondary level and on the ramification of courses in higher education in relation to man-power needs and as a basis for the students' future. In view of the fact that graduates of junior and senior secondary schools tend to change their jobs more and more frequently, a comprehensive study should be made of educational planning at the local level; the study should be based on a national plan of man-power needs and supply. The method of estimating these needs should be improved, taking into account not only the entry of women into various fields but also the future demands in various occupations for graduates specializing in certain fields.

Report of 22nd Committee. Compulsory education, conceived in 1872, progressed rather gradually. Sometimes part-time schooling was permitted, though full and universal attendance was always envisaged. In the early years, the aim was the acquisition of knowledge and skills, but later the emphasis was placed on providing equal opportunities for education suited to the mental and physical growth of the child. When the years of schooling were extended, the teaching time spent on Japanese and arithmetic decreased in the curriculum of primary schools, as the time allocated to social studies, science, music and the arts increased.

Junior secondary education (three years) is now compulsory, and senior secondary (three years) has recently increased to 75% of the age-group. However, at both levels of secondary education, the problem is to organize a curriculum in which general and vocational education are effectively combined.

The enrolment in higher education, which was 5% of the age group before the war, is now 25% for men and 11% for women. Private institutions enrol 75% of the students, and 70% of these institutions are located in seven large cities. Natural sciences enrol only 24% of the students. All these factors aggravate imbalances in the available facilities.

The report points to a number of improvements that could be made at the compulsory education level. The extension of compulsory schooling should be so organized
that individual abilities and aptitudes are always catered for, that it involves attendance at school for a certain number of years rather than the completion of a prescribed course of study, and that part-time attendance is permitted in some cases. While appreciating the role of the central administration in raising the level of education, a comprehensive study should be made to indicate the way in which the initiative and judgement of teachers could be used more effectively in the organization of the curriculum.

There are a number of problems facing higher education institutions. Not least is the fact that hundreds of institutions, created after the war, claim the status of universities though their academic standards vary greatly — only a few providing graduate courses; any proposal to re-classify the institutions according to their academic standards, meets with strong opposition.

Improvement of teaching standards, facilities and the general organization of education is required to meet the changing needs of an increased student population.

General education, a post-war innovation in higher education in Japan, has not yet been fully accepted; some question its value in a university curriculum.

State control over educational institutions in general and private ones in particular has been very limited since the war. State expenditure has not been increased proportionately to the expansion of higher education, resulting in an increased number of private institutions of inadequate quality. University autonomy, re-emphasized after the war, gave rise to some undesirable practices. For example, consultative conferences within each institution have become so firmly established as to hamper movement of the staff, and individual faculties have had too much autonomy and this has often hindered decision-making by the university as a whole.

Most of these problems in higher education result from a disregard of the fact that its tremendous expansion has made the traditional idea of a university inadequate. There is a need for definite policies on the following points: the extent to which the traditional idea and organization of a university are applicable to newly-created institutions of higher education;
the improvement or drastic change of general education; the possibility of a new form of university organization in which, while academic freedom is guaranteed, its administration is conducted more effectively; the necessity of a new school system which will eliminate the factors that have caused all the institutions to conform to a certain type of practice and organization.

Report of 23rd Committee. In determining the scale on which education should be financed full account should be taken of the recent tendency for the ratio of educational expenditure to the national income to remain stationary, and for the ratio of public expenditure on education in the total educational expenditure to decline.

Fundamental policies must be evolved for the improvement of expenditure at each level of education, in view of the fact that, while the unit-expenditure for compulsory education has attained international levels, that for higher education compares very poorly with other countries; furthermore, the quantity of facilities and equipment per student also lags behind.

Considering that the debts incurred by corporate bodies that provide private higher education schools are much greater than the value of their school properties, and that, nevertheless, the unit-equipment as a whole is not being adequately improved, it is essential to re-examine the financial structure of private institutions. In private schools the expenses borne by the parents are rising continually, yet the education of their children does not seem to improve; what is worse, the proportion of debt service in the expenditure tends to increase. Government policy for grants to private institutions needs drastic investigation.

Western Australia. Committee on Tertiary Education

Report

Perth, University of Western Australia Press, 1967. 92p.

Australia
educational administration
educational finance
educational organization
educational establishments
tertiary education
university education
teacher education
Technological education

The terms of reference laid down for the Committee on Tertiary Education in Western Australia (appointed in 1966 by the Premier, under the Chairmanship of Sir Lawrence Jackson) were to study: "the future needs of Western Australia in tertiary education; the institutions necessary to meet these needs, both with regard to expansion of existing facilities and new institutions, the appropriate form of control and government of tertiary institutions apart from the University of Western Australia, the future role and development of tertiary institutions including inter-relationship between institutions and desired academic standards other than the University of Western Australia." For the purposes of the report "tertiary education" means all course work which requires for initial entry the satisfactory completion of at least five full years of secondary schooling.

The Committee recommended that a "Tertiary Education Commission" be established as a continuing body, to advise the Government on developments over the whole field of tertiary education and to encourage co-ordination between all the autonomous institutions involved. Through its funding procedures, the Australian Federal Government has established a tripartite pattern in tertiary education, distinguishing between university education, teacher education and advanced education. Because of the small population and small number of institutions in Western Australia, and also for educational reasons, it is desirable that these sectors be co-ordinated by such a commission. This would ensure a planned expansion of
educational facilities in line with the changing needs of the State. The co-ordinating function would cover the introduction and location of new courses, the sharing of staff between institutions, and mutual arrangements for recognizing course work done elsewhere.

Where government departments other than the Department of Education have been responsible for the maintenance of tertiary education, the institutions concerned have suffered to some degree from lack of long-term planning, and of opportunities for staff mobility and promotion.

There is, moreover, a general trend away from small institutions devoted to training in single technologies. The committee recommends that all tertiary institutions should be autonomous and diversified. New colleges should commence as branches of existing major institutions with eventual autonomy in view. Institutions such as the School of Mines, the College of Nursing and the Muresk Agricultural College should either become part of the Western Australian Institute of Technology, to be renamed the Western Australian College of Advanced Education, or become autonomous colleges. These colleges should provide courses for university, teacher education, technological and other tertiary studies where feasible.

Teacher education should eventually be removed from administration and control by the Education Department. Other types of tertiary courses should be introduced into existing teachers' colleges with a view to their becoming autonomous colleges of advanced education as soon as possible.

The University of Western Australia should not grow beyond a maximum of 8,000 full-time and 2,000 part-time students on its present campus. Planning should begin for a university college to open as soon as possible after 1972. The university should establish a school of veterinary science as soon as possible; it should also be asked to add executant studies to its courses in music. The University and the Western Australian College of Advanced Education should be asked to expand their facilities for external studies either severally or by joint action, to consider ways of meeting the need for training in farm management and to explore the conduct of mining courses, in particular the re-establishment of the degree in mining engineering.

Appendices contain a review of recent reports on
tertiary education, a survey of student preferences for country facilities, existing university and institute courses and accrediting arrangements, and the interim report of the committee on the Western Australian Institute of Technology. Tables include statistics on enrolments, graduates, associates and diplomates in Western Australian tertiary institutions for 1967, and a prediction of future enrolments in the University.
The terms of reference laid down for the Committee (appointed by the Minister of Education under the chairmanship of Mr. P.W. Hughes) were "to formulate guidelines for the educational programme of schools in the state for the period of compulsory attendance". The material collected was to have two functions: first, to form the basis of a report designed to state the aims of education in view of the present and foreseen needs; second, to identify problems which might become the subject of further investigations.

Three factors have resulted in the need for a reappraisal of education in Tasmania: the expansion of secondary education to cater for a wide range of students; new knowledge which requires a reconsideration of the curriculum as a whole, and also concerns the learning process itself; the changing social situation, in which home and church play a less decisive role than formerly in the development of social customs and values.

At present Tasmanian children are required to attend school between the ages of 6 and 16. Primary schooling extends over 6 years, secondary schooling over a period of 3 to 6 years. In large towns, high schools provide three to four years of secondary schooling, while in country areas the secondary classes are attached to primary schools. Fifth- and sixth-year classes which include only subjects required for university admission are provided at two high schools and two colleges. About 20% of children attend independent (private) schools.
The demands of society for citizenship, vocational competence and self-inclination are common to all students. It is impossible to define groups in such a way as to reduce drastically the extent of variation in all the significant factors. Therefore it is recommended that there should be continuous and sequential common education at the primary and secondary levels.

Primary education and the first four years of secondary education should be general in nature, and the total content of material to be studied should be reduced. Social-science subjects at all levels should be reviewed to relate more closely to the needs and nature of society. More emphasis should be placed on oral communication and problems of personal and social relationships in all subjects. The use of mass media should be taken into account when planning programmes.

In the secondary school, syllabuses in each subject should contain a common core of concepts to be developed at different levels of sophistication to suit the varying abilities of students. Several alternative courses of subjects should be provided by which comparable end-points may be reached. In a number of subjects, courses lasting less than four years should be provided to meet increasing variations in taste and aptitudes. Study designed to meet the requirements of tertiary education and special vocational training should not be permitted to affect the implementation of a programme of general studies as outlined. Education in the fifth and sixth years of study should provide an increasingly wide variety of courses for students not wishing to proceed to tertiary education.

Technical subjects in secondary schools should be considered as extensions of the primary arts and crafts programme, and all students should be given the opportunity to participate. All technical subjects should be open to both sexes. Emphasis should be placed on an awareness of the possibilities and qualities of a variety of materials and tools rather than the development of particular skills in a limited field.

The curriculum should be increasingly co-ordinated, and innovation and experiment in curriculum planning should be encouraged with a need to involve teachers in such planning. A committee of teachers, church representatives and laymen should be set up to make recommendations on the teaching of a general and non-denominational religious course. To take advantage of new developments in education, a testing service section, and a
programmed instruction centre should be established.

The school should accept responsibility for consideration of the moral issues involved in human relationships and social issues. Specific instruction in such matters as sex education and the dangers of drugs and alcohol should be included in relevant sections of the whole programme. Teacher education should be extended to cover these fields and the whole area of personal relationships.

The school should be developed into a community centre and the design of new schools should take this into account. Adult education classes, refresher courses, and rehabilitation courses for workers displaced through automation and changing patterns of employment should be provided. The school should participate in community activities and be concerned with the development of suitable attitudes about such matters as driving and first aid.

Appendices include statistics of schools in Tasmania, a study of occupation trends, and a report of an investigation into the public's perception of the role of the school.
The report of the committee set up in 1964 to examine the education of young children in pre-schools and state primary schools in Tasmania was accepted by the Minister for Education in May 1968. Organisation on the basis of the committee's recommendations will begin in 1969. The recommendations arise from the assumption that there should be a common approach to and philosophy for the education of children below the statutory age for school entry.

With regard to organization, the committee recommended that pre-schools should be established as a common extension of the statutory provision for education; a general director should be responsible for the whole area of education from 3 to 8 years of age. The staff should have common training, salary scales and promotion, and freedom of interchange.

The length of teacher education courses should be gradually extended from three years to a three-year training programme with one year of suitable post-graduate study. Selection of students should be controlled by the institutions to which application is made. An in-service training centre should be provided for residential weekend and vacation courses. Scholarships for travel and opportunities for further study should be made available.

The report emphasized the need for continuity of development from the age of three to eight. To provide
continuity, it recommended that, where possible, pre-schools should be built on the same sites as primary schools. In planning and equipping future pre-schools, architects should draw up educational specifications in consultation with the specialist officers concerned, and these officers should approve the final plans.

To ensure individual attention for the children, it recommended that the upper limit for pre-school classes should be 25. Smaller groups were recommended for younger children.

The principle of parent involvement in equipping and maintaining facilities in pre-schools should be adopted. Mothers could also help by acting as teachers' aides.

The necessary materials and equipment recommended for pre-schools should be provided by the Education Department. Two appendices to the report contain lists of recommended materials for self-chosen play activities and mathematical experiences.

Priority in the setting-up of the new system should be given to the older children in the pre-school group.

In addition to the three routine school medical examinations, the School Medical Officer as part of a team should initiate the assessment of any physical, mental, emotional or social handicap likely to affect the child's ability to learn. As part of a scheme introduced in 1966, a Register of Handicapped Children is to be compiled. The report recommended that an Advisory Committee for Special Education be set up to investigate at as early an age as possible the children with suggested handicaps, and to recommend placement. Parents should be given the right of appeal through a second assessment.
This survey is the outcome of two separate research projects undertaken by the School of Education in the University of Melbourne and the Australian Humanities Research Council. It is divided into three sections. The first section surveys the history of foreign-language teaching in Australia and the aims and claims made for it in Australia and overseas. The second deals with the incidence of foreign-language teaching in Australia. The third section describes an attitude survey conducted in 1965 among Form I, Form II and Form V pupils at government, independent and Catholic schools in Melbourne (Victoria).

(1) History and aims. Experimental research into the validity of the various aims and claims for foreign language teaching is summarized and the authors conclude that while much research has been done on cognitive aspects little is available in the area of methodology, the attitudes of pupils to foreign-language study, or whether the study of a language affects pupils' attitudes to a foreign country. Generally the aims and claims of foreign-language teachers have been accepted without question.

(2) Enrolment. Of the total enrolment in all secondary schools in Australia in 1957/58, 43% were studying a foreign language, and 65% of all first-form students began a foreign language. The most popular was French, followed by Latin and German. Of the quarter million pupils taking a foreign language, fewer than 2,500 were studying any other than those three. The authors recommend that more children be given the opportu...
unity to begin a foreign language and that a greater diversification of language teaching is needed. German should become a first foreign language in some schools with Russian and Italian as second foreign languages. More children should be able to study two foreign languages, beginning at different levels. Indonesian, Chinese, and Japanese could be introduced at senior levels.

Although the number of students commencing a foreign language compared favourably with that of other countries, the wastage was great, with a far higher number of girls than boys completing a course, although more boys than girls completed secondary school courses. It is suggested that a study of a language such as Russian or German may interest boys more than French and that reading matter in the fields of science, exploration and adventure will appeal more than the conventional textbooks. Since a foreign language is a 'cumulative' subject the value of which depends on the length of time it is studied, it is recommended that, where there are sufficient pupils, French should be taught at different levels or by different methods to different groups in the same form, so that children need not drop the subject.

Action should be taken to remedy the present unequal spread of foreign-language resources in the universities. Elementary courses should be continued in those foreign languages which are not taught in school, and they should be provided in French and German for those students who have not had an opportunity for study at the secondary level. A variety of courses at the same level, offering different aspects of a language, should be available, particularly for teachers in training, for whom a strengthened study of linguistics is essential. Special 'service' courses, teaching language as a tool for practical, technical, and research purposes, should be provided.

(3) Attitudes. In the attitude survey the pupils were asked to rank subjects, including French, in order of preference, and to answer questions (relating to their attitudes to French) based on the categories of linguistic interest, utility, achievement, cultural interest, appreciation of the teacher as a person, teaching techniques, aids and activities, and the amount of homework received. At the Form V level a group studying French and a group that had abandoned French were studied.

French was found to be among the least-liked sub-
jects at all levels, and it generated stronger feelings of like and dislike than other subjects. From the first form to the fifth form there was a lessening of interest among boys and a corresponding growth of interest among girls, which seemed to arise from the fact that girls were more interested in language study generally and felt that they were making better progress. The author considers that French may gain the reputation of being a 'feminine' subject, and this will create a vicious circle. There should be textbooks adapted to boys' interests, and there is need for research into the reasons for their declining interest.

In spite of the stated cultural aim of the teaching of foreign languages, pupils claimed that very little was taught about French civilization, and little use was made of teaching aids and activities. Their attitude to this part of the subject did not affect their like or dislike of the subject, as Catholic school girls, who professed the greatest interest in the language, had the least contact with aids and activities, while government school boys, who enjoyed the most use of aids and activities, were the least interested in French. The authors conclude that interest in French depends on interest in language study and that the question of cultural aims needs re-examination. Teaching aids and activities should be available at all levels and be regarded as an integral part of the teaching of the subject.

The spectacular rise in the students' appreciation of teaching techniques at the Form V level leads to the conclusion that better teachers are available to the senior forms. Good teachers in a cumulative subject such as French are especially needed in the junior forms, and an investigation of the qualifications and training of teachers is required. Courses in linguistics should be provided for all intending modern language teachers and different opportunities for them to develop their skills during the teacher-training year should be available.

A considerable number of children showed interest in the subject although experiencing difficulty with it from the beginning. A serious study of the syllabus is required to see whether too much is being attempted. At least four periods of French should be provided at the first-form level.

The majority of children considered French a use-
iess subject, boys outnumbering girls. Home encouragement seemed fair at all levels. Greater efforts should be made to present to citizens, parents, and children the usefulness of foreign language study. French may appear more relevant if begun at an earlier age and if related as far as possible to other school subjects and activities. An audio-visual approach will give students the feeling that they can use French.

Appendices contain the questionnaires presented to pupils.

Abstract prepared by the Australian Council for Educational Research, Melbourne, Australia.
The terms of reference for the survey were to consider practices in all kinds of schools, equipment and facilities available in schools and the use made of them, the courses of study in current use and their coverage of various aspects of school music, the organisation of music within the several states with regard to policy, finance and supervision, teacher training courses, and the numbers of children being effectively reached by music courses.

In Australia five states out of six have supervisors of music attached to their Education Departments. Of these five, three are almost entirely concerned with music education in primary schools. The supervisors are paid widely varying salaries and are concerned with the organization of all aspects of music education, from supervising assistants and organizing syllabuses to conducting at music festivals. The author recommends that the Education Department in each state appoint a supervisor of music with the status of inspector, with an adequate staff, clerical, professional and administrative to co-ordinate courses and implement policy in both primary and secondary government schools. Primary and secondary district advisers of music should be appointed in country areas to give demonstrations, organize in-service courses and initiate discussion with teachers in their area.

The present fragmentary condition of music education in primary schools stems from the dependence of the quality of instruction on the interest of the class teacher and the divided responsibility which occurs when itinerant specialists take some of the lessons and
the class teacher the remainder. The teaching of music by specialists should be adopted as a principle in all schools, either by a full-time specialist in schools of sufficient size, or a system of shared teaching by an adequately trained class teacher. Inspection of music teachers should only be conducted by specialist inspectors.

The majority of government schools encourage only vocal performance. To furnish opportunities for the all-round musical development of children, state governments should make subsidies available to primary and secondary schools for the purchase of orchestral instruments, and teachers of instrumental music should be recruited and trained. Where the situation demands it, a supervisor of music should be appointed to organize and promote instrumental activities. Established composers should be invited to produce adequate music for school bands and orchestras, since the present level of compositions available is below the desired standard. Instruction in playing stringed instruments should be provided in the seven to ten year old age group.

The survey found that many courses in Australia suffered from an imbalance of musical activities, with a bias towards singing. Listening to music, the playing of instruments in class, and creative activity are often omitted in practice, and some official syllabuses omit one or more entirely. It is recommended that courses in primary and secondary schools should include all the above activities and that practising teachers and representatives from teachers' colleges be included on committees drawing up syllabuses. Public examinations should include courses in class music to be accepted as one of the subjects for certificate examinations. In the Australian Music Examinations Board's theory equivalents for public examinations, an undue emphasis is placed on harmony and counterpoint, which could readily be acquired at the conservatorium level. As replacements for traditional harmony, chordal analysis or study of chord sequence should be considered. The art of music-reading should be acquired through the playing of instruments rather than by vocal means, and more examples of twentieth century music should be included in the course to make pupils aware of music as a lively contemporary art. Where a specialist teacher is available, at least two periods a week in the first two years of secondary school and one period a week from the third year upwards should be given.

Facilities and equipment are often inadequate.
especially in country areas. Special music rooms, de-
signed in consultation with the supervisor of music
should be provided in all new primary and secondary
schools, central libraries of records, scores and multi-
ple copies of music should be made available in country
areas, and suitable wall charts should be provided by
the Visual Aids Branch in each state. Class sets of
suitable song books with melody lines should be avail-
able in all schools and children should be provided with
the notation of the melody line for the majority of songs
they learn.

There is a need for greater consultation between
specialist teachers of music, and opportunities should
be provided for conferences between government and non-
government teachers. Primary and secondary teachers in
training should visit schools at both levels to develop
a comprehensive view of the aims, progress and methods
of music teaching. All students in primary teachers'
colleges should be seen taking a music lesson by a music
lecturer of the college, and all students should have
the opportunity to see demonstration lessons by the
music lecturer and not only by the class teacher to whom
they are assigned.

Appendices contain: number of candidates sitting
for public examinations in music in each state in 1965,
major non-competitive music festivals, music teachers'associations in each state, courses of secondary teacher
training, in-service training courses, and subsidies
available for music equipment for schools.

Abstract prepared by the Australian Council for
Educational Research, Melbourne, Australia.
This paper presents the results of a survey conducted in 1967 by the Food and Agriculture Organization of the United Nations at the request of the 28th session of the South Pacific Commission held in October 1965. The terms of reference were to survey existing facilities for agricultural education in the several territories of the South Pacific; to attempt an assessment of needs for agricultural education at various levels; in the light of assessed needs and certain principles of agricultural education, to make recommendations regarding further development of agricultural education.

The classification of institutions for the purposes of the report was made on the basis of such criteria as purpose, educational standards at entry, the character of the curriculum, and the depth of treatment of technical subjects. The facilities surveyed were agricultural colleges in Western Samoa, the Territory of Papua and New Guinea (T.P.N.G.) and Fiji; agricultural or farm institutes in the British Solomon Islands Protectorate (B.S.I.P.), New Hebrides, Tahiti, Ponape, New Caledonia and the T.P.N.G. vocational agricultural schools in the Trust Territory of the Pacific Islands (T.T.P.I.), Fiji, and the T.P.N.G.; farmer training schemes in the B.S.I.P., Fiji and the T.P.N.G.; and school agriculture in the B.S.I.P., New Caledonia, the Condominium of the New Hebrides, Western Samoa, Fiji, French Polynesia, Guam and the T.T.P.I., American Samoa and the T.P.N.G.; and Young Farmer Clubs throughout the area.
The criteria by which the evaluation of facilities was made is discussed and includes a consideration of the importance of a knowledge of principles preceding applied work, the function of practical work in illuminating theory, the study of ecology and ecosystems in developing a 'whole farm' concept and integrating the syllabus, the role of the extension worker in changing attitude by means of group discussion and the necessity of providing up-to-date in-service training. In connexion with these points it was noted that in some institutions the study of management procedures and of the amount of routine husbandry to be carried out were preceded by no basic study. It is recommended that the function of each item of practical work be considered and routine or repetitious tasks be avoided, that extension workers be trained in the methods of group dynamics, and that university departments be involved in in-service training courses.

Lack of statistical data in regard to population has prevented any firm estimates of expected population increases. However, in every territory visited, the shortage of graduates and diplomates was reported. It is recommended that a survey should be made as soon as possible of manpower resources and needs, and the use of overseas facilities for training graduates and the recruiting of expatriate graduates should be continued. The highest priority should be given to training diploma students, and suitably qualified students from other territories should be accepted for training and be partly sponsored by their own territory.

There is wide variation in the standards of instruction provided at the three diploma-level colleges, and it is recommended that meetings be sponsored by the South Pacific Commission to discuss practical and theoretical work and to consider specializing in the provision of post-diploma courses.

In only one territory had an effective philosophy of extension teaching been developed. It was recommended that centres for training in extension work be established at each of the three colleges and that officers responsible for training be suitably instructed in methods of group dynamics.

Consideration of the training of field assistants is difficult owing to the variable educational standards and age of the students, the difficulty of retaining staff, and lack of a clear definition of function. Staffs of
farm institutes should meet and discuss curriculum construction and in particular the organization of practical work. An information service should be set up concerning agricultural publications for use in colleges, institutes and schools.

Sound systems of school agriculture are vital to the development of the territories. Discussions should take place regarding syllabi, which should include study of the fundamental principles. Training in the teaching of agriculture should be provided at teachers' colleges.

Projects in young farmers' clubs should be individual rather than group projects and be related to the conditions and age groups of the members. Project leaflets should include the necessary scientific and technical information in view of the likelihood of infrequent supervision. The post of an agricultural educationist to coordinate agricultural education in the South Pacific should be established and an immediate appointment made.

It is recommended that the South Pacific Commission offer to organize technical in-service training courses for staff members of all colleges, institutes and schools concerned with agricultural education in the area. An organic connexion should be established between agricultural education and the new universities being set up in Fiji and the Territory of Papua and New Guinea.

The provision and development of agricultural education in the region at different levels is very uneven, and it is recommended that each territory should set up an advisory committee on agricultural education to advise on the development of institutions and services and to make the most economical use of resources.
The Decree provides that the Ministry of Education shall be organized as follows: Minister of Education; Under-Secretary for Primary Education and Teacher Training; Under-Secretary for Preparatory and Secondary Education; Under-Secretary for Technical Training; Under-Secretary for Central Services and Foreign Relations; Under-Secretary for Financial and Administrative Affairs; Directors, Deputy Directors and Assistant Directors of Education; Provincial Chief Inspectors with responsibility for specific subjects.

The Minister of Education will be chairman of the Planning and Supervisory Board and of the Council of Under-Secretaries. Those responsible to him will include the chief inspectors of education, the secretariat-general of the Council of Under-Secretaries, the directorate-general of organization and of development planning, the departments of complaints and public relations, and the Office of the Minister, which will deal with technical, financial administrative, political and secretarial matters.

Responsibility for the various departments and sections of the Ministry will be divided between the five Under-Secretaries as follows: (a) Under-Secretary for Primary Education and Teacher Training: a directorate-general for the planning and inspection of primary education and teacher training; an inspectorate-general of primary education and teacher education, and directorates-general for special education, fundamental education, and...
private education. (b) Under-Secretary for Preparatory and Secondary Education: a directorate-general for planning, and an inspectorate-general for preparatory and secondary education. (c) Under-Secretary for Technical Training: a directorate-general for the planning of agricultural education; an inspectorate of agricultural affairs; an inspectorate-general for schools of agriculture; a directorate general for the planning of industrial education; an inspectorate for industrial affairs; an inspectorate-general for industrial schools; a directorate-general for the planning of commercial education; an inspectorate of commercial affairs, and an inspectorate-general of commercial schools. (d) Under-Secretary for Central Service and Foreign Relations: physical education; civics; training; examinations; educational aids; educational documentation and research; cultural services (the Ministry library, educational journals, school libraries, museum of education); statistics; foreign relations and inter-Arab co-operation (including educational missions to foreign countries, i.e. Sudan and Somalia, and certain financial and administrative machinery). (e) Under-Secretary for Financial and Administrative Affairs: a directorate-general for financial affairs (budgeting, supply, accounting, treasury of the Ministry and insurance), for the co-ordination of individual activities, for catering and transport, for financial and administrative supervision, for buildings, for legal affairs, and for administrative complaints; and a directorate for the book service.

The decree further provides that reports on the activities of the various subordinate sections should be submitted to the under-secretary concerned. Communications received from provincial directors of education will also be considered in the first instance by the under-secretaries and routed as follows: to the personal attention of the Minister, to the Council of Under-Secretaries, or to the relevant inspectorate or directorate.

Finally, the decree provides that the directorate of organization shall determine, in collaboration with the departments concerned, the responsibilities and functions of the various departments of the Ministry, in accordance with the structure provided for in the decree.
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Education in the United Arab Republic is at present divided into the following stages: primary, preparatory, secondary and higher. The crèche and kindergarten stages do not at present form part of this system; instead, they are supervised by the Ministry of Social Affairs, as is the case with a number of fee-charging private schools.

Primary education. This is compulsory. It begins between the ages of six and eight and lasts six years, during which an effort is made to develop the child's personality and guide him along suitable lines by the study of social, economic and hygiene-related subjects with a direct bearing on his everyday life. The curriculum includes Arabic language, religious training, social subjects, hygiene, arithmetic, community singing, music, physical education, drawing and handicrafts, and free educational activities. A report on the level which the child has attained is made upon completion of the primary stage.

Preparatory education. The current trend is towards unification, the aim being to encourage the pupil's development and discover his bents and inclinations with a view to determining the type of education which will ultimately be most appropriate for him. To be accepted for the preparatory stage the pupil must pass an examination in Arabic, arithmetic, social studies, science and hygiene. The course lasts three years and comprises the following subjects: religious instruction, Arabic, a foreign language, social studies, mathematics, science
and hygiene, technical training, vocal and instrumental music, physical training, civics and practical subjects. At the end of the course, a final examination is held in each of the educational regions into which the United Arab Republic is divided.

Secondary education. This includes academic and technical (i.e. agricultural, industrial and commercial) studies and teacher training for both sexes. Its aim is to promote the pupil's development along sound lines, enlarge his knowledge and experience and prepare him for life in the community. In addition, the able students are prepared for admission to advanced institutes and colleges. In both general and technical schools, the duration of the course is three years.

In the first year of general education there is a standard curriculum consisting of religious education, Arabic language, a principal and a subsidiary foreign language, social studies, mathematics, physics and chemistry, natural history, artistic education, physical education, youth activities and practical activities. The next two years are divided into arts and science branches: the curriculum for the former comprises Arabic, a principal and a subsidiary foreign language, social studies, philosophy, economics, art, physical training youth activities and practical subjects; on the science side it comprises Arabic, religious training, a principal and a subsidiary foreign language, the Arab world and civic education, mathematics, physics and chemistry, natural history, physical education, youth activities and practical activities. The purpose of the practical activities work is to imbue the pupil with a feeling of respect for manual work and afford him experience that will be valuable to him in his future life. For this reason each school selects practical subjects suitable to the environment and inclinations of its pupils from among the following fields: electricity and radio, photography, carpentry and metalwork, painting and sculpture, pottery, weaving, food and dairy industries, bee-keeping, horticulture, typing and shorthand, book-keeping, domestic science and needlework.

Technical secondary schools may be attended by students who have completed their preparatory education, subject to certain restrictions regarding age and individual aptitude. Their purpose is to train technicians for work in the various fields. In addition to the general and specialized technical subjects taught in these schools, certain arts subjects such as Arabic, foreign languages...
and civics are also studied.

Some of the subjects taught in technical and agricultural schools either rank as independent faculties or, in the case of the various building trades, possess schools of their own.

Secondary education concludes with a nationally organized public examination for each type of education, a Certificate of Secondary Education being awarded to successful candidates. Those who do exceptionally well in this examination can qualify, subject to certain conditions, for admission to universities and other higher educational establishments.

Education in the United Arab Republic is distinguished by the fact that it is available free of charge to all members of the community without distinction and is supervised by the State. The primary and preparatory stages are unified, diversification, in accordance with the aptitudes and capacities of the students being deferred until the secondary and higher stages.

Special emphasis is currently placed on the study of foreign languages, science and mathematics - these being basic subjects without which no development is possible - and on female education.

Educational planning aims at achieving universal compulsory education (as against the present figure of 75 per cent) as soon as possible, and to increase its duration to six years. It is also proposed to make education equally available in urban and rural areas.

Commercial education. This is designed to produce a generation capable of working for a higher standard of living and to train the workers for work required by the country's various development projects. It is currently confined to secondary commercial schools and consists of a three-year course comprising Arabic, religious training, a principal and a subsidiary foreign language, book-keeping, financial and commercial mathematics, secretarial work both in Arabic and in the principal foreign language, typewriting (in Arabic and in a foreign language) general knowledge, a technical subject selected by the student: economic geography and history, study of the Arab world, physical education and youth activities.

Measures adopted by the State to encourage commercial education include: broadening of the curriculum.
to include the co-operative system, an optional subject (business administration, port management, public accounting etc.), social security, labour legislation, and, as an innovation, various aspects of economic development at home and abroad; increased attention to the student's general culture; construction of new commercial schools; provision of up-to-date textbooks; supply of educational equipment; improvement of school library facilities; training of commercial school teachers to the same standard as that required of secondary school teachers; organization of refresher courses for employees and arranging for some of them to spend periods varying from three months to two years with local or foreign undertakings; practical courses, both in and out of school, to enable pupils embarking on their third year of study to gain practical experience during their summer holidays.

All students in their final year go on a one-week tour in the course of which they visit commercial and financial enterprises, a port, a custom-house and an exchange, thus gaining some practical acquaintance with the things they have been studying at school.

Commercial secondary schools also accept government employees wishing to learn something about business and accountancy. In this way they contribute to the national effort and fulfil the role as practical instructors as well as educators.

Commercial education is supervised by an advisory committee drawn from the universities, commercial undertakings, the Ministry of Education and other bodies.
This study of the development of education in the U.A.R. starts from the year 1959-60, because this was the basic year for the first five-year plan. It was also the second year in which the recent educational scale had been used. The main changes during the period 1959-68 have been the unification of the primary school, introduction of the preparatory school (3 years), and the rearrangement of the secondary stage (3 years). There has been development also in educational planning, and in textbooks; and progressive educational theories have been applied. The changes were based on new laws promulgated between 1953 and 1956. Development and enlargement occurred over the whole educational field in order to meet the demands of the increase in population and the people deprived of educational services.

Education in the U.A.R. is a major enterprise. Compared with other public activities, far more money is spent on education, far more personnel are employed in it, and far more people are affected directly or indirectly by it.

A number of factors have affected the development of education since 1959. First there were difficulties during the application of the new educational policy. Local authorities participated in the educational process, and a decentralized system in administration was applied to ensure local government. Education reached rural and remote areas. The new policy had to follow the general policy of the state in raising the standard of living and in increasing the national income. This
was achieved through the development of technical education and the formation of the necessary links between education and the different industrial projects. Special care was given to teaching science. There was also wide participation of women in different aspects of national life. This involved their education and solving the problems of the working woman.

During the period between 1959 and 1968 education in private schools decreased at the primary level owing to the introduction of free education and the opportunity for everyone at the compulsory age to find a place in government schools; at present only 11% of the total number of students attend private schools. But at the preparatory and secondary levels private education played a more important role. This is attributed to the restrictions of government schools.

In higher education, the state has founded the Ministry of Higher Education to carry on the task of university education and to supervise the training centres for secondary education graduates. The Ministry also handles the interests of students studying abroad, together with foreign cultural and educational relations.

The Ministry of Education has started a training programme for its employees since 1955 and made it a prerequisite for promotion to supervisory posts.

Development in school premises is shown in the first five-year plan (1960-65). It included the building of 869 units to meet expansion in different kinds of education. The Ministry was able to accomplish 74.3% of the original plan. Investment in the first plan was estimated at £(E)19,839,500. There was the problem of increase in prices of building materials during the first five-year plan by 30%. The estimated prices for buildings were assumed to be the same all over the Republic, whereas prices vary in different governorates. In some governorates the cost price for a unit increased by as much as 100%. This problem was dealt with by a simplification in the designs of schools, and the building of additional classes. This problem also affected the educational service.

Responsibility for the execution of educational policy is shared among: the Ministry of Education; the Ministry of Higher Education; Al-Azhar University; local authorities concerned with general and technical education.
The Ministry of Education has applied the principle of centralization of planning and decentralization of execution. Two departments within the Ministry were therefore concerned with planning and follow-up. Local administration was strengthened, as expressed in Law No.124 of 1960. To achieve this aim the Ministry transferred many of its powers to local authorities within the governorates. This allows for the quicker and better solutions of problems. Local authorities in the educational field were given complete powers concerning the appointment of primary teachers and the internal transfer of local teachers according to the best interests of the governorate.

A brief review of the evolution of administration in U.A.R. will show that all through the ages very strict centralization prevailed. There are benefits in both centralization and decentralization. The Charter of National Action mentions: "This organization must depend on centralization in planning and decentralization in implementation which ensures that the planning programmes are placed in the hands of all the people."

Educational organization follows the same system in the form of central offices in the Ministry for Planning, Follow-up and Evaluation of all educational stages and other decentralized departments and units in the various zones. The main sectors of the Ministry cover the following services: primary teacher training education; preparatory and secondary education; technical education; central services and foreign relations; financial and administrative affairs.

In fact, the previous system of organization, which was applied for more than six years, was based mainly on the idea of separating the function of planning from that of follow-up in the main educational services. During this period the shortcomings of this type of organization were revealed: it did not help to integrate the two phases of the educational process; there was no co-ordination and it resulted in dissipation of efforts and other administrative problems.

In the new organization of 1968 the most distinct and outstanding change is the combination of Planning and Follow-up in all sectors and among the most important purposes of this change is the correlation between educational aims and the development plan.

Abstract submitted by the Documentation and Research Centre for Education, Cairo.
The Law covers the three stages of general education, namely: primary, preparatory and secondary, and enters into force with effect from the present academic year 1968/69.

After reviewing previous legislation on the subject, the new law lays down general regulations common to all three stages of general education, the objectives of which are defined as the general intellectual, physical, moral, civic and rational instruction of the young with a view to their becoming good socialist citizens. It is further provided that education in state schools shall be free throughout its three stages.

Primary education will last six years and be followed by three years of preparatory and a further three years of secondary education. Orders regarding entrance qualifications, the school year, curricula, timetables and textbooks for each of the three stages will be issued by the Minister of Education. It is specifically provided, however, that religious instruction shall be regarded as a basic subject in all three stages. The number of pupils in a class may not exceed 50 in primary schools, 40 in preparatory schools, and 36 in secondary schools. Primary schools are to be co-educational unless circumstances warrant otherwise; in the preparatory and secondary stages, on the other hand, boys and girls will be educated separately wherever possible.

Whereas primary school education is compulsory,
admission to the subsequent stages will depend on the pupil's age and the grades he has obtained. Experimental and other special schools may be established for backward or exceptionally able children.

The Ministry of Education and local education authorities are made responsible for educational planning and administration at their respective levels. The local councils will establish schools, equip them, and provide for all their needs within their allotted budgets. Advisory committees will be formed to assist head teachers in the administration of all preparatory and secondary schools; in addition, there will be a local advisory committee on general education in each governorate and a central educational council, under the chairmanship of the Minister of Education, as well as the parents' councils which already exist in every school.

Under the new Law, teachers and supervisors will be assessed largely on the basis of their pupils' examination results, on lines to be determined by the Ministry.

During the primary stage, pupils will be allowed to repeat a class only once; in the preparatory and secondary stages, they may repeat two classes in each stage but no single class may be repeated more than once. A student in the preparatory or secondary stage may be expelled if he absents himself without excuse for more than fifteen days in succession, or for a total of more than thirty days in the course of the academic year, absence during any portion of the school day being regarded for this purpose as a full day's absence. Pupils so expelled may be enrolled, at the head teacher's discretion, upon payment of a re-enrolment fee of £(E)5. Hard-working students on the other hand, may be offered material and moral incentives by the educational authorities. Student unions for all secondary school pupils will also be established at governorate level, besides which there will be a national student union covering the whole country.

The performance of preparatory and secondary-school students will be assessed on the basis of their year's work, including end-of-term tests as well as final examinations, 20% of the maximum possible marks in each subject will be allocated on the basis of the year's work, except in the case of religious instruction and practical subjects, where not less than 50% of the maximum possible
marks shall be allocated on this basis. The minimum pass mark may not be less than 40% except in the case of art (20%), religious instruction (50%) and Arabic (50%). At the end of each academic year, there will be a two-stage promotion examination (i.e. one which may be attempted twice) for first- and second-form pupils in both the preparatory and secondary stages. To qualify for promotion, a pupil must obtain (a) not less than the minimum pass mark in every subject, and (b) not less than 50% of the aggregate of maximum possible marks for all subjects except religious instruction. Candidates who have failed in not more than two subjects may attempt the examination a second time provided they satisfy requirement (b); a second attempt is also allowed in the case of candidates who fail to satisfy requirement (b) but have passed in every subject. Candidates in this second category may select one or two subjects for examination in order to bring their aggregate marks up to the required figure. Candidates who do not satisfy requirement (b) and who have also failed in not more than one subject may be re-examined in the subject in question and may also offer one other subject of their own choice in order to obtain the necessary aggregate. Finally, candidates unable for a valid reason to attend the examination the first time it is held may be examined together with those taking it for the second time.

The Law goes on to deal separately with each of the three stages. It defines the objective of primary education as being to provide the child with the basic knowledge and skills that he needs if he is to become a good, enlightened citizen, ready to play his part in everyday life or pursue his studies at preparatory level. It is the responsibility of the State to provide this type of training, while parents also have an obligation to ensure the education of their children. Primary education must commence between the ages of six and eight and is compulsory for a period of six years, which may be extended to a maximum of seven in the case of a child who repeats one class. A fine of 100 piastres is imposed for non-attendance and re-imposed as often as the offence is repeated. Heads and controlling authorities of primary schools are given special powers to enforce attendance; but the law exempts from compulsory attendance children living more than two kilometres from the nearest school or suffering from an illness or physical or mental handicap which makes it impossible for them to attend.

The following subjects are prescribed for primary
education: religious instruction, Arabic, civics, science and hygiene, arithmetic and geometry, music and singing, physical training, drawing and handicrafts, agriculture, domestic science (for girls).

In principle, class teachers will be responsible for all instruction during the first four years; during the two final years, the teaching will be done by specialists in the various subjects. Examinations for sixth-form pupils will be held at regional level, under the supervision of the appropriate education authorities, and a Primary Education Certificate will be awarded to successful candidates. Those pupils who, after completing their compulsory schooling, either fail the examination or do not sit for it, will be issued by their education authority with a Certificate of Completion of Compulsory Schooling.

The objectives of preparatory education are defined as being (a) to consolidate the pupil's intellectual, physical, moral, civic and national training and (b) to provide such instruction as will make it possible to discover his aptitudes and capacities, and encourage him to develop them, either by adopting a vocation after appropriate professional training, or by continuing his studies at a secondary school.

To be admitted to the preparatory stage, a student must hold a Primary Education Certificate and be not more than fifteen years of age. The subjects studied are: religious instruction, Arabic, a foreign language, civics, mathematics, science, hygiene, art, practical and applied science, physical training, music and singing. The educational authorities will hold a single-stage general examination at governorate level, at the end of the third year; a Preparatory Education Certificate will be awarded to successful candidates. This examination is open to any student who has completed the syllabus in a government school or in a private school supervised by the Ministry. Students who have completed their primary education not less than three years previously may also be admitted to the examination, provided they offer the entire three-year curriculum. To be successful in the examination, candidates must obtain (a) not less than the minimum pass mark in every subject and (b) not less than 50% of the aggregate of maximum possible marks for all subjects except religious instruction.

The objectives of secondary education are defined
as being (a) to consolidate the student's general education and (b) to provide him with the scientific, literary, artistic and practical knowledge necessary to enable him to continue his studies at advanced and university level. To be admitted to the first form a student must hold the Preparatory Education Certificate and be not more than eighteen years of age on the first day of October in the academic year in question. The subjects of study are: religious instruction, Arabic, first foreign language, second foreign language, mathematics, science, civics, philosophy, sociology, economics, physical training, military instruction, Arab society and socialism; practical subjects—e.g., applied science—and matters of vocational interest are also studied. At the end of the third year, a single-stage, nation-wide examination will be held under the auspices of the Ministry of Education, and a Secondary Education Certificate will be awarded to successful candidates. The examination is open to all those who have completed the secondary curriculum in either a government school or a private school supervised by the Ministry, and to other students provided a period of three years has elapsed since they obtained their Preparatory Education Certificate, and that they offer the entire three-year curriculum. Pass requirements are the same as for the two previous stages. With the exception of those who had already done so before the entry into force of the new law, no student may sit for this examination more than three times; however, the Minister of Education may, if he so decides, allow a candidate who has failed not more than two subjects to make one further attempt.

The Explanatory Note states that the decision to promulgate a single new law designed, unlike its predecessors, to cover all three stages of general education, was prompted by the fact that a considerable time had elapsed since the enactment of previous legislation on the subject. Many changes had meanwhile taken place—in particular the spread of socialist values and the progress that had been made in economic and social development planning. The note goes on to draw attention to the most important innovations introduced by the new law, namely:

1. The clear definition of the objectives of general education in its three stages.
2. The statement that the State has an obligation to provide compulsory primary education for all the nation's children; and the decision that the efforts of all educated citizens must be enlisted, through unions and popular organizations, in the fight against illiteracy.
3. The decision to improve the quality of education by: abolishing the system under which a pupil could be declared successful even if he failed to pass in one or two subjects, with the result that students tended to neglect even such basic subjects as foreign languages or mathematics; limiting the size of classes; linking the assessment of the teacher's performance with the results of his pupils; catering for advanced students by opening schools suited to their talents; abolishing the system of automatic promotion in primary education and establishing a system of regular examinations for all classes, with a general examination leading to the Primary Education Certificate for pupils in the sixth class.

4. The protection of high standards by: limiting the opportunity to repeat classes; expelling those absent without adequate excuse; treating the year's work as a factor in the student's ultimate assessment; limiting the opportunity to sit for general examination; and, lastly, granting incentives to hard-working students.

5. Consultation and collaboration in the administration of general education through the creation of a number of consultative bodies.

Abstract submitted by the Centre of Educational Documentation and Research, Cairo.
This decree refers to Law No.160 of 1958 concerning the regulation of private schools, together with the various laws and decrees by which that law has since been amended; Law No.137 of 1956 concerning co-operative societies; and certain other legislation on the subject, including Ministerial Decree No.72 of 1963 concerning co-operative societies for the establishment and administration of private schools, which the present decree supersedes.

The decree comprises six articles and three annexes (specimen articles of association; rules of procedure; rules governing the declaration, control and supervision of educational co-operative societies).

As provided in Article I, an educational co-operative society is any society established, in conformity with the law concerning co-operative societies and the relevant executive decrees, for the purpose of providing educational and teaching services at all stages except that of higher education. Its articles of association must specify the name of the society, its area of activity, the liability of each of its members, its proposed duration, the purpose for which it has been established and the amount of its paid-up capital. The application for incorporation must be accompanied by a declaration of adherence to the rules of procedure, containing the same information as that supplied in the application and specifying the objects of the society, the address of its registered office, and the area and proposed duration of its activities.
Co-operative societies may charge education fees on a scale established by the Ministry of Education. Their financial resources consist of shares subscribed by members, the price of each share being one Egyptian pound; unconditional donations or subsidies; and a reserve fund built up by the retention each year of 20% of a society's net profit until such time as its reserves are equal to its capital. Shares are nominative, indivisible and not subject to distraint (except to meet debts of the society), and there is no limit to the number of shares that may be issued. No person may be obliged to subscribe more than one share in order to join the society, and the liability of a member may not exceed the amount of his individual shareholding.

Membership of a co-operative society is open to applicants holding at least one share and resident in the society's area of activity, and terminates when a member dies, resigns, transfers his shareholding to another member or is expelled by the board for activities detrimental to the interests of the society. A person deprived of his membership is entitled to recover the value of his shares, provided the value of the society's capital would not thereby be reduced to less than one half of the maximum value attained since its foundation; his liability towards third parties remains in force for a period of two years following the termination of his membership.

If a prospective member of a co-operative society wishes to offer an existing private school, of which he is the owner, as his capital contribution to the society, the school's real value as a capital asset must be assessed by a commission appointed by the local education authority. If either party objects to the assessment within one month of being notified thereof, a further assessment must be made by a committee appointed by the Deputy Minister.

The law provides that each society shall be administered and represented by a board of up to eleven members, of whom five are to be elected by the society, three appointed by the regional education authority (or five appointed by the Minister of Education if the society's activities fall within the area of responsibility of more than one authority) and one appointed by the Teachers' Union or its local branch. The elected members have a three-year mandate; each year, however, two members selected by ballot must retire and present themselves for re-election in the same way as members
whose mandate has expired. Board membership is limited to citizens of the United Arab Republic whose past or present activities do not conflict with those of the society and who have been members of the society for at least two years. An elected member ceases to be a member of the board if he fails to attend three successive meetings without acceptable written excuse. Each year, the board elects from among its members a chairman and deputy chairman, both of whom must satisfy the requirements for ownership of a private school laid down in the law concerning private education; it also elects a secretary and a treasurer. The board must meet at the registered office of the society at least once a month to consider a summary of the society’s accounts, satisfy itself with regard to the cash position, and discuss the month’s educational and other activities. At the end of each fiscal year, the board must draw up an annual report, comparing the society’s educational activities with those of previous years and indicating to what extent the decisions of the society and the plans and directives of the Ministry of Education have been implemented. The report must also contain a final account for the fiscal year and a profit and loss statement, with the relevant supporting documents. Each member is entitled to inspect the accounts and supporting documents during a period of not less than eight days before the general meeting of the society. A copy of the accounts must also be forwarded to the appropriate education authority as soon as they have been approved by the society’s auditor. Some, or all, of the members of the board may be awarded good management bonuses, the total amount of which may not exceed 10% of the society’s net profit.

Each society has a general assembly, composed of all members of the society, with one vote per member irrespective of the size of his shareholding. Decisions are adopted by a majority of the votes of those present; a motion is considered as having been rejected if the voting is equally divided. Ordinary meetings of the general assembly are held at the request of the Co-Operative Union for Private Education, the society’s auditors, the local education authority, one-tenth of the society’s members (provided it has a total membership of not less than fifty), or one half of the members of the board of administration. An extraordinary meeting of the general assembly may also be summoned at the request of the board. The general assembly, whether meeting in annual, ordinary or extraordinary session, may consider only those matters that are
contained in the agenda circulated with the notice of the meeting. A copy of the minutes of each meeting of the general assembly must be sent to the local education authority and to the private education department of the Ministry within fifteen days from the date of the meeting. Each society must have an auditor, who must be a registered accountant or accountant's assistant, and who is responsible for auditing the society's accounts, checking its books and other documents and establishing its cash and stock position at least once a year. The audit must be carried out on the society's premises and accompanied by an annual report on its situation. A society's fiscal year runs from 1 September to 30 August.

Any distribution of the net profits of private schools must comply with the provisions of the law concerning private education and of the relevant executive decrees. The rest of the net profits shall then be distributed, by way of dividend, among those members who have availed themselves of the services of the society in proportion to the size of their transactions.

The winding-up of a society, cessation of its activities and realization of its assets may be brought about either by decision of its general assembly or by order of a court or administrative authority for any of the reasons specified in the law concerning co-operative societies. In such circumstances, one or more liquidators are appointed to take charge of the society's assets. Repayments to members may not exceed (a) the real value of their shares and (b) the amount of such moneys as they may have deposited with the society. Any balance remaining after liquidation will be transferred to a current account and utilized either for the establishment of a new educational co-operative society or for such other public purpose, of benefit to the former society's area of activity, as the Minister of Education may decide. Lastly, educational co-operative societies must undertake to adapt their rules of procedure as necessary whenever new legislation regarding co-operatives is promulgated or existing legislation is amended.

An annex to the decree sets out the procedure governing the declaration, control and supervision of educational co-operative societies. The founders of a society must submit to the local education authority an application accompanied by the necessary supporting documents, including three copies of the articles of
association and of the draft rules of procedure bearing the signatures, duly authenticated, of the founders. Having considered the application and accompanying documents in the light of the law concerning co-operative societies, the law concerning private education, and the executive decrees relating to both those laws, the authority forwards the papers and its comments on them to the private education department of the Ministry, which examines the application and submits it to the appropriate Under-Secretary with a reasoned recommendation. If the Under-Secretary sanctions the establishment of the society, the private education department causes his decision to be published in the Official Gazette, of which it forwards a copy to the local authority for the information of the founders. If the application is rejected or requires amendment, the department advises the local authority accordingly, specifying the reasons for the decision in order that these may be communicated to the founders, who may appeal to the Minister of Education within sixty days from the date of the notification. In any event, the decision must be taken within sixty days from the date of transmission of the application to the local education authority.

Educational co-operative societies may also establish their own Co-operative Union, with (i) a general assembly composed of representatives of member societies on a basis of one representative to each society owning fifty or fewer schools, two to each society owning more than fifty and fewer than one hundred schools, and three to each society owning more than one hundred schools, and (ii) a fifteen-member council composed of nine persons elected by the general assembly of the Union from among its members, three Ministry of Education officials nominated by the Minister and three other persons appointed by the administrative council of the Teachers' Union. The private education department of the Ministry is responsible for the control and supervision of educational co-operative societies as provided in the law concerning private education. Inspectors' reports on the societies are examined by the local education authority, which forwards them with its comments to the private education department not later than one month from the date of submission. Control and supervision of the Co-operative Union for Private Education and the examination of its reports are the responsibility of the private education department, which is also responsible for supervising the work of such liquidators as may from time to time be appointed.

Abstract submitted by the Educational Documentation and Research Centre, Cairo.
This volume reports part of a comprehensive research project concerning the Finnish matriculation examination. The goal of the project is to explore the matriculation examination as a series of tests indicative of ability differences between individuals. (In this study the term "ability differences" is used in a broad sense to mean differences in performance between individuals regardless of whether these differences are due to intellectual or personality factors, to motivational considerations or environmental influences). The central aim of the study is to gauge the usefulness of the matriculation examination as a standard for predicting success or lack of success in university studies.

The main group of individuals dealt with consisted of a sample of 1,330 Finnish-speaking students who graduated from the University of Helsinki in the years 1955-1959 (or, in certain cases, in 1955-1962). The sample comprised students in the Department of History and Philology, the Department of Mathematics and Natural Science and the Department of Political and Social Sciences. The comparative group was composed of 10,929 Finnish-speaking students registered in the above mentioned departments of the University of Helsinki from 1948-1955.

A number of different research methods were employed: the total group of those who officially enrolled in the university was compared with those who graduated, the object being to find out how the matriculation examinat...
tion results of those who graduate (that is, obtain a master's degree in the departments concerned) differ from the results of the total group of students registered; in the case of the graduates, success in university studies was compared (by means of correlation analysis) with success in the matriculation examination; analysis of the different factors involved was carried out to evaluate psychological similarities between success in the matriculation examination and success in university studies; comparative analyses of extreme groups were used as a control method (the graduates falling within the highest and the lowest matriculation examination success quarters were compared with each other in respect to their success in university studies); multiple correlation analyses were carried out to elucidate the nature of the various matriculation examination tests within the set of the obligatory tests, and to establish their highest potential predictive power.

The concurrent validity of the matriculation examination was investigated by comparing the results of the tests in this examination with the corresponding school-subject marks given to the individuals immediately before the matriculation examination. The data were collected from two successive years. The correlation between marks obtained in the matriculation examination and the mean of marks obtained in the academic school subjects was found to be .83, on the average. The matriculation examination consequently explained almost 70 per cent of the variance of the school marks.

The uniformity of the principles of evaluation applied was investigated in the case of the general knowledge test. (This test is an intermediate type between a subjective and an objective type of test). Points given for two scores, obtained independently of each other, for the same answers were compared. Correlations for the various items ranged from .61 to .82, and the correlation coefficient for the resulting total scores amounted to .96. The reliability of the evaluation was also investigated by having an experienced scorer evaluate and re-evaluate some 250 test papers.

The importance of the variables involved in success in university studies, and their serviceability in general, were examined. To obtain a clear idea of their influence and reliability, the grades obtained in the examinations for the Master's degree were re-scored, taking into account the qualifying phrases accompanying
them. The intercorrelations of the separate criteria indicated that, although there was marked overlapping, each criterion possessed specific variance. The three criterion variables indicating the student's performance frequently formed a cluster. On the other hand, the length of time between enrolment and graduation was found to be relatively independent of all three.

It was found that statistically significant differences in matriculation examination success existed between groups of students majoring in different university subjects. It was also discovered that the manner in which the evaluation scales were employed varied a great deal depending on the university subject. The differences in success between the male and female students majoring in the same subject were more frequent than could be expected by chance. In most cases the female students' university success was somewhat poorer than their success in the matriculation examination would have led one to expect.

Comparative analysis of the results of those who were enrolled and of those who graduated showed that the latter had done significantly better in the matriculation examination than the former. When the total points of merit for the obligatory tests or the general mark were used as the predictor variable, a correspondence between the matriculation examination and success in university studies was clearly established.

Use was made of factorial analysis for investigating the psychological characteristics of the criterion variables and the matriculation examination tests and as a result it seems that even the matriculation examination reveals permanent inter-individual differences in mental abilities which bear substantially upon success in university studies. The factors which show themselves in the inter-individual differences in university success but are not represented in the matriculation examination variables are of special interest.

The results of correlation analysis were supplemented and checked by a comparative analysis of groups representing different performance levels. The quarter that had been most successful and the quarter that had been least successful in the matriculation examination were singled out for comparison with each other in respect of university success. It was found, on the average, that those in the highest quarter had been significantly more successful in each of the three departments than those in the lowest quarter.
in the lowest quarter. Moreover, the time needed by the more successful group to bring their university studies to completion was about one year less.

Multiple correlation analysis was applied mainly with the object of discovering what the maximum predictive power of the matriculation examination would be if the results of the separate tests were weighted in an optimal manner. Each of the criterion variables was dealt with separately. Elucidation of the nature of the criterion variables was a further goal. It was found that, when combined success-in-study variables were used as the criterion, the highest correlations obtainable through revised weighting varied between .36 and .65 in the Department of History and Philology; between .34 and .70 in the Department of Mathematics and Natural Science; and between .15 and .68 in the Department of Political and Social Sciences.

Analysis of the role of the matriculation examination and its concurrent and predictive validity suggested at several points that the predictive information contained in the examination had so far not been utilized in the most efficient manner possible.

Abstract prepared by Professor Arvo Lehtovaara, Institute of Psychology, University of Helsinki, Finland.
In the early stages of vocational guidance there was great optimism as to its potential for the indication of vocational fitness. It was thought possible to direct every young person with fair accuracy to the occupation for which he was fitted by examining both personal ability and the requirements of the occupation considered. Results obtained during the past decades, however, have shown that the prediction of vocational fitness is exceedingly complex.

This investigation should be required as a preliminary attempt to use the schools' normal curricula as an aid in vocational guidance. Since, in many Finnish schools handicraft is a compulsory subject, the aim of this study has been to test the prognostic value of such training for subsequent success in schools and in jobs. This study necessarily raised several related questions: techniques of work appraisal, citizenship school streaming and trial periods at vocational schools.

The work tests were based on the training scheme devised by the author with his co-worker in an earlier book. The tests call for the making of articles of similar types, requiring reading of diagrams, drafting the same, forging, filing, platework, work with machines, and certain other types of activity. Each test in the series contains 16 simple articles and in completing them the pupil must show mastery of the principles of metalwork.

The participating teachers were invited to a general information meeting during which the structure of the
tests and method of instruction were explained; they also received written information on all the more important points in good time before starting the experiment. The test group consisted of vocational schools (7 schools, 104 pupils, average age 15 years 8 months), the comparison group, citizenship schools (7 schools, 126 pupils, average age 13 years, 11 months).

The results of the investigation were as follows:
(a) a very clear positive correlation exists between the appraisal variables used (general appraisal, speed, neatness, accuracy of measurement, accuracy of form independence, and outside general judgement).
(b) Only such variables as may be confirmed by reliable measurements (e.g. time and accuracy) are significantly separated from the general appraisal. If the teacher marks the work only with a "general appraisal" it will be based only on an indefinite neatness factor. Other factors shown by factor analysis were called time independence and accuracy of measurement.
(c) The paired comparison method, which was laborious, gave approximately the same results as was obtained when ranging the articles by rank.
(d) The elementary school mark for handicraft has prognostic value for the higher grades (citizenship schools). It does not have such significance at vocational schools.
(e) The prognostic value for success in the work tests of the vocational school entrance examination (mother tongue, arithmetic and s-factor) is higher than that of the elementary school certificate (mother tongue, arithmetic and handicraft).
(f) In work-appraisal results it was confirmed that age had a slight positive influence.
(g) The pupils' social status did not affect the work appraisal.
(h) Success in work tests correlated strongly with concomitant general appraisal of work, clearly with technical drawing, and weakly but positively with mother tongue and arithmetic.
(i) The work test has a good prognostic value for later success at school in practical subjects, and to some extent for general success.
(j) Success in the work test and later at school correlates positively but rather weakly with the judgement variables of the employers.
(k) The relation of general school success (average mark) to employers' judgement is also slight.
(l) The transfer of citizenship school pupils to different occupational fields is random. Many vocational
school students also leave the field they have studied (about 1/3). Increasing age and school success have a negative effect on this.

We should be careful about generalizing from the results, particularly with regard to individuals. The most difficult question seemed to be how to find the reliable criteria necessary for prediction of success in work. In many occupations it has been an overwhelming task to obtain criteria which are practical, relevant, normal and constant. This is, however, a prerequisite if we wish to raise the level of occupational guidance from one concerned with information and placement alone to one more concerned with prognosis.

Abstract prepared by Professor Oiva Kyöstilä, the Institute of Education of the University of Oulu, Finland.
In the present study the problem of "frame-size" and the question of individual differences were studied by varying ability, as measured by the school grades and a battery of seven "factor tests" of intelligence, and varying "frame-size" in a programme of Roman numerals. There were no indications that "frame-size" affects the learning outcomes, but the time required by the learners increases as "frame-size" diminishes. A strong relationship was found between different ability measures and learning outcomes.

One of the "classical" problems of programmed instruction is the question of the role of the "step-size" factor and its importance in programmed learning situations. The relevance of the "step-size" variable was almost immediately realized by programme constructors and research workers, when they tried to develop programmes of optimal efficiency. Accumulating empirical evidence, however, led some research workers to doubt the validity of the much advocated doctrine of "small steps".

While stimulus characteristics like "step-size" or "frame-size" have received much attention in programmed instruction literature, a second group of important factors is formed by various organism variables. At the very beginning of the history of programmed instruction some studies seemed to imply that effective programmed instruction might be able to wipe out differences in achievement measures associated with intellectual and ability capacities. Some more recent
studies, however, have challenged the universality of the results obtained in the early studies of individual differences in programmed instruction.

The purpose of the present study was to investigate the effects of one stimulus variable, "frame-size", and a group of various organism variables reflecting student ability and sex. Possible effects of these variables are studied in the light of short-term learning and retention scores on the subject matter of Roman numerals.

The present study is in principle a replication along the lines used in some earlier studies already reviewed. This implies the use of the factorial design technique which is especially useful in studies where effects of various factors are studied simultaneously. In the present case a $3 \times 3 \times 2$ factorial design was used.

A pilot study was first made to test the procedures planned to be used in the present study (Kronqvist, 1965). Guided by the experience gained from the pilot study, the following procedure and design were adopted.

A sample of 654 fourth graders were randomly assigned to the experimental and control groups of 575 and 79 Ss respectively. Both groups were then given a battery of seven factor tests of intelligence. From the latest term reports the marks for twelve subjects were taken to be a measure of school success. The Ss were also pre-tested by giving them a special test, Roman Numerals I, designed to measure their previous skill in Roman numerals. Age and sex of the Ss and the profession or job held by their parents were taken from the school files. The socio-economic status of their homes was estimated on the basis of their parents' occupations.

The equality of the two groups was then tested by t-tests in connexion with all the variables mentioned above, except sex and socio-economic status where Chi$^2$ was used.

On the basis of the sum of the factor-test scores and the means of the school marks the experimental Ss were then divided into three groups according to their "ability". Each of the three ability groups was then randomly divided into three parts which again were randomly assigned to one of the three programme con-
ditions. Division according to the sex of the Ss was
done after ability grouping.

Ideally now, there should have been significant
differences only between the ability groups, and no
differences between the programme and sex groups. This
was tested by an analysis of variance for all the
combined variables used in the ability grouping.

The actual treatment in form of programmed materials
was then performed. The Ss studied Roman numerals from
one of the three programme versions which differed in
"frame-size". Time used in the learning task was
recorded. The control group did not receive the treat-
ment.

Immediately after studying the programmed materials
the experimental Ss took the criterion test Roman
Numerals II simultaneously with the control group.
Comparing these scores should reveal whether there have
been any treatment effects, and comparing the control
group's performance on Roman Numerals I and II might
reveal testing effects.

To measure retention Roman Numerals III and IV were
given to the experimental Ss after one and two weeks
respectively. Learning outcomes in form of after-test
and gainscores were analysed by using analysis of
variance. This was done also to the total- and per-
frame timescores. In addition to analysis of variance,
factor analysis was used to relate the learning out-
comes to the other measurements used in the study.

The finding that all the treatment groups
performed better on the post-test and gainscores is in
accord with the widely accepted view that learning can
be effected through programmed material. There are,
however, important unsolved questions on the control of
stimulus variables by programmed instruction material.
One of the most controversial of these has been the
problem of "step-size" or "frame-size".

B.F. Skinner's emphasis on the importance of small
"steps" in writing programmes received some support from
the research done on this subject. The present study
failed to reveal any difference between the groups using
different "frame-size" versions (in studying Roman numerals)
on learning or retention outcomes. Learning time,
however, was significantly longer with the groups using
"small-frame" programmes. This, of course, could mean
that the requirement of "small steps" has been over-
emphasized.

There are, however, many factors limiting the validity of the findings of the present study. First of all, it may be that the "step-sizes" in the three programme versions did not vary enough, or that an insignificant aspect of "step-size" measurements was varied. As was pointed out in earlier sections, poor measurements (and poor programme) handicapped research on programmed instruction in general, and in the question of "step-size" the problem was most difficult.

Secondly, the learning task, Roman numerals, was a very small one. This fact is another factor limiting variance in learning. It may well be that in longer tasks learning will be affected by different "step-sizes" in programmed material.

One possible implication of the present finding is that a programmer can vary the size of the programme frames considerably without influencing the results, but he must keep in mind that time in learning can be saved by using fairly large frames. How large the frames should be for maximum time saving and still maintaining an adequate level of attainment is a question which still remains to be answered by future research.

Programmed instruction was once seen as a possible solution to level individual differences. Teaching machines and learning programmes were heralded as the great solution to the gnawing problem of individual differences. In the present study, ability proved to affect both the learning and retention scores. It was also found that Ss with higher ability learned faster despite the programme version they used. The various ability measures also correlated moderately with the learning measures. These findings are, by and large, in accord with the most recent findings reported earlier.

The correlations between the ability measures and the gain scores were significant but low. This may mean that besides lacking an instructional technology for coping with individual differences, we also lack satisfactory ways of finding out what the differences are.

The finding that boys obtained higher scores on learning and used less time than girls, suggests that the same differences between the sexes, found in
differential psychology many years ago, also apply to programmed learning situations. This time the task was of numerical character and boys performed better than girls. It may well turn out that in the same kind of experimental setting using highly verbal material, girls will have higher scores than boys.

In general, the results showed that in the experimental setting used, "frame-size" did not affect the learning but "small-frame" programmes having more frames required more time to go through. This was true on all ability levels and for both sexes. Ability proved to affect learning achievement and time, so that Ss with high ability learned more and faster. In this special setting boys obtained higher achievement scores and learned faster than girls.

Strictly speaking the results are not generalizable outside the school district in which the study was done, because the sampling procedure was not totally randomized. The learning task was highly specific and cannot be considered as representative either. In other words, there were many factors jeopardizing the validity of the results.

In the future, it may be worthwhile to apply an experimental design, where the programmed task is larger and more generalizable. For example, one might combine nonsense and meaningful material by using some kind of artificial language. Making the different programme versions vary greatly in respect of "step-size" one might produce enough variance to be measurable. Forming of different treatment groups could be made more meaningful by first taking a large number of measures of individual differences, factor-analysing them, and on the basis of factor scores forming the ability levels to be divided randomly into programme groups. This sort of design would, however, require fairly large representative samples in order to be useful in acquiring significant knowledge about "step-size" and individual differences in programmed learning.

Abstract prepared by Mr. Harry Kronqvist, Centre for Educational Research, University of Jyväskylä, Finland.
This report has been prepared by a committee appointed by the Government in 1961 to investigate ways in which to improve the provision of secondary education for those citizens who do not attend ordinary secondary schools as regular pupils. The committee was to pay special attention to an expansion of evening studies and to increasing the efficiency of the teaching of secondary school subjects in correspondence schools, primary schools, civic schools (an additional 1 or 2 school years after the 6-7 primary school years) and workers' institutes.

In its report the committee analyses and assesses the present system of secondary school studies. It points to the drawbacks of the present system, and makes suggestions for improvement. In addition, the committee has reviewed the possibilities of secondary school studies outside the secondary school proper.

There are two possibilities of obtaining the lower and higher secondary school certificates outside the secondary school proper: a) those who are above the usual school age and who work in daytime can obtain secondary school certificates through studies at secondary evening schools or in the evening classes of an ordinary secondary school; b) it is possible to obtain the secondary school certificates as a private pupil at a secondary school.

In spite of the rapid spread of secondary education, many gifted individuals are denied secondary education,
either because there is no secondary school in their locality or because it is overcrowded. In some cases, illness may interrupt school attendance for such a long time that it is not possible to resume regular studies. As the need for secondary education in society increases constantly, one should also aim at giving those talented individuals who do not have the opportunity of regular school attendance the possibility of secondary education. The survey carried out by the committee shows that the interest in obtaining secondary school certificates outside the secondary schools is increasing.

Some of the most obvious drawbacks and deficiencies of the present system are: the small number of secondary evening schools and evening classes; the lack of guidance for private pupils, and the lack of financial support for private pupils.

The committee proposes that secondary evening schools should be established in the bigger cities with lower secondary school courses lasting three years and higher secondary school courses also lasting three years. In smaller localities, where the demand for educational facilities is more limited and where it is consequently not necessary to start a new lower or higher secondary school course every year, an evening class should be established in connection with the secondary schools. It would function in the same way as the secondary evening schools.

In addition to studies in secondary evening schools and in evening classes it ought also to be possible to carry on secondary school studies as a private pupil in secondary schools. Courses preparing the pupils for the lower and higher secondary school certificates should be provided in civic and workers' institutes, in folk high schools, in correspondence schools, in cooperation with correspondence institutes as well as with the other types of educational institutions mentioned above, in study circles, and through guidance in secondary schools. As courses preparing pupils for examinations as described above have already been provided to some extent, it has been possible for the committee to found its proposals on practical experience.

Some amendments to the Decree on the Examinations of Private Pupils are also suggested. It is proposed that, if the number of applicants rises to 10 per cent of the ordinary pupils, every secondary school should accept private pupils unless there are special reasons for exceptions to this rule. It is further proposed
that the time for passing the examination should be extended from one year to 18 months. Other measures aiming at unifying the examination system are also suggested.

With respect to financial support, studies at secondary evening schools and in evening classes should be free of charge and pupils should be entitled to receive scholarships in the same way as the pupils of ordinary secondary schools. The examination fees of private pupils should be abolished and the courses preparing the pupils for the examinations should be free of charge or receive considerable financial support.

The committee has established that there is a need for expanding the possibilities of obtaining secondary school certificates outside the secondary schools and that such opportunities could best be provided through secondary evening schools, evening classes or by studies as private pupils in the secondary schools. Furthermore, adequate financial support for such studies is necessary.

When the committee started its work there was only one secondary evening school and one evening class in the whole country. By 1966, there were six examples of both of these types of secondary school education. This increase is partly due to the inspiration provided by the committee's work.

Abstract prepared by Mr. Kosti Huuhka, National Board of Schools, Finland.
The position and importance of art in Finnish society has changed in many respects in the last few decades. At the same time the responsibility for maintaining and promoting the arts has to an increasing extent been transferred from private bodies to the community. However, there has been no corresponding development of government measures to support the arts, particularly through the allocation of public funds in this sphere. For these reasons a government committee was appointed on 28 February 1962 with the following tasks:

(a) to ascertain the form and extent of present state support for the different branches of the arts; (b) to study ways and means of establishing this support on a firmer basis; and (c) to draw up a proposal for action to develop and make known the Finnish arts, with special consideration of how to make more purposeful and centralized use of state funds.

The Committee's proposals for the promotion of art are based on the view that the developing community must ensure artists and art institutions conditions in which they can work and develop and in which art education can be developed and broadened; that the arts must be raised to a more significant position as the rising intellectual and material standards require. The Committee's recommendations cover legislation, administrative re-organization, education and information.

The plan of action and the priorities to be assigned call for close co-operation between the administration and the different branches of art. To achieve such
co-operation the Committee recommended that priority be
given to the reform of the art administration, i.e.
the Ministry of Education and the art committees sub-
ordinated to it. A special office for the arts should
be established within the Ministry. As the measures to
further the arts increase and the volume of work grows,
this office may be enlarged into a department.

The Committee proposed that seven state art
committees be set up to replace the six boards of art
experts which now constitute the arts administration
under the Ministry of Education. These seven committees
would be concerned with literature, graphic art, music,
drama, architecture, industrial art and photography.
They would be responsible for promoting creative and
performing art work, art education and research, and
for administering other aspects of the state programme
in the sphere of art, e.g., awarding the various state
art prizes.

The arts branch as a whole should be represented in
the Ministry of Education by a central arts committee
consisting of the chairmen and vice-chairmen of the
seven art committees. Its tasks would include: prepar-
ing a general policy for the promotion of the arts,
drawing up a comprehensive proposal for the Ministry
of Education concerning the art appropriations to be
included in the budget, issuing statements and making
proposals to the Ministry on matters pertaining to the
arts, and coordinating international relations in the
field of art.

The absence of a regional organization in the
present system is singled out by the Committee as the
principal reason why large-scale practical measures
have not been taken to extend a knowledge of and inter-
est in the arts to rural districts. Considering the
increasing importance of the arts in local cultural
life, the Committee deemed it necessary to establish
a special organ to further the different branches of
the arts within each province.

Another urgently needed reform for which the
Committee submitted a detailed proposal and draft law,
concerns state grants for artists. The Committee pro-
posed, by a special law, to increase the present 100
grants per annum to some 180 grants for the same period;
they would be from 1 to 5-year grants and considerably
more generous than at present. The Committee also
deliberated the establishment of permanent grants and
appointments for artists; it was agreed that, as the system developed, this question would be re-examined in the light of experience in other countries (e.g., Sweden).

The Committee report included proposals for the promotion of each branch of art; these proposals concern individual artists, art institutions or the branch of art in general. In its proposals the Committee recommended a considerable increase in artists' pensions. The availability of studios, tools and raw materials should also be eased, art competitions should be organized, more state art prizes should be awarded, etc. Along with the improvement of working conditions for individual artists, the network of art institutions should be improved and expanded, art museums and collections, orchestras and theatres should be developed and if necessary centralized in accordance with the regional division of the country.

It is the Committee's opinion that in order to increase popular understanding of the arts, young people in particular should be brought into close contact with art; for this purpose use should be made of the manifold possibilities offered by mass information media.

The State should make every effort to further international contacts in the different branches of art.

Abstract prepared by Mr. Olli Närvi, Head of the Arts Bureau of the Finnish Ministry of Education.
On 22 November 1963 the Finnish Diet accepted a recommendation to the effect that the Government should take prompt steps to reform the Finnish school system in accordance with the principles of the comprehensive school. In February 1964 the Government appointed the Basic School Committee to prepare for the realization of this recommendation. The Committee presented its report on 22 September 1965. It proposed that the present six-year primary school, the two- or three-year civic school it leads to, and the five-year lower secondary school based on four years of the primary school proper, should all be united to form a nine-year basic school of the comprehensive type. The curriculum of the first six years of the basic school (the lower level of the basic school) would be the same, on the whole, for all pupils, whereas a differentiation of the curricula would take place during the three last years (at the higher level) when pupils could, to a certain extent, choose their subjects and take different courses. The Committee also proposed that the Government appoint a pedagogic committee to draft an outline report on the pedagogic structure of the planned new basic school to be used as the basis for a detailed curriculum plan. Such a committee was appointed in December 1965 and the Report of the Government Committee on the School Reform was presented in October 1966.

The report deals with the following questions: arguments for a school reform; aims of the basic school; relationship of the basic school to the educational institutes based upon it; results of the investigation.
on the development of pupils from the point of view of school reform; the school as the development milieu of pupils; outlines of the activities of the basic school; a proposal for the pedagogic structure of the new school; realization of the basic school in different circumstances; measures leading up to the school reform.

The rapid industrialization of the country, the mechanization of forestry and agriculture, and the gradual development of the service sector into the biggest occupational group, are all factors underlining the importance of making vocational education available to the entire population. The development of mass media has resulted in many more people coming into contact with events both at home and abroad and has also helped secure a wider audience for literature and art. A natural development of this has been the need for a broader general education. Parents want their children to have the opportunity of attending those schools which provide the greatest possibilities of further study—namely the present secondary schools. A clear indication of this is shown in that, in 1950, 24 per cent of primary school pupils continued their studies in a secondary school while the corresponding figure for 1965 was 50 per cent and is expected to rise to 80 per cent in 1975. This trend poses certain pedagogic difficulties in that all pupils follow the same curriculum regardless of their individual differences. Financial difficulties also result from use of the premises and the equipment of two parallel forms of school. There are also organizational problems as pupils for the receding primary schools must be taken from wide areas. The main social problem is that the position of those who are left outside the secondary schools is increasingly difficult in regard to further study and placement on the labour market. Furthermore instruction in elementary schools is free of charge, and transport, housing, textbooks and school meals are part of school responsibility; while secondary schools charge a fee and do not offer their pupils these social benefits, in spite of efficient support from the Government. The economic status and the domicile of the parents therefore affect the choice of education. A nine-year comprehensive school which provides a free basic education and takes account of pupils' individual differences is clearly called for.

The purpose of the basic school is (a) to give pupils a broadly based education which makes it possible for them to receive their share of the national
cultural heritage in proportion to their talents and inclinations and which enables them to participate in the cultural life of the community; (b) to impart to pupils the basic knowledge and skills of vocational education in different fields. The basic school is also intended to give pupils, irrespective of their later studies and profession, the same general education leading to good working habits and a desire to increase their knowledge. For this reason there are no clear divisions in the basic school where all pupils study the same general subjects, namely, religion and ethics, the national language (Finnish or Swedish), mathematics, a first foreign language, history and social science, citizenship, knowledge of environment (at the lower level), geography, biology, physics, chemistry, handicrafts, home economics, art, music, (1st-6th year) and physical education. Certain practical skills are necessary for everybody and familiarity with various kinds of practical work helps pupils in their vocational choice. Instruction in manual dexterity in the basic school is not, however, vocationally oriented.

At the lower levels of the basic school (the first to the sixth year) only the above-mentioned common subjects are studied. Twenty-three hours per week are devoted to them in the first and second years, the corresponding figure being twenty-eight for the third and fourth years, and thirty for the fifth and sixth years. In addition, the pupil may include in his programme so-called optional subjects, i.e. a second foreign language or the second national language, a third foreign language, subjects developing practical skills, music and, if the circumstances permit, arts subjects. The pupils of the higher level include optional subjects in their programme up to not less than four hours and not more than nine hours per week.

Research results in the sphere of educational psychology and school work itself clearly show that the intellectual structure and the inclinations of pupils vary considerably. The skill and interest of pupils are often related to particular subjects. Pupils therefore are given tasks of varying complexity both at the lower level of the basic school as well as at the higher level. This grouping of the pupils is carried out on the basis of subject matter alone. Thus, the grouping in mathematics, for example, is not related to the grouping in foreign languages. The differentiation of class instruction is designed to be as flexible as possible so that the changes in the development rhythm of different pupils can be continuously taken into account. Extra tasks may be
given to the gifted and willing at the lower level of the basic school while those who are least successful are given additional guidance. As a very definite choice of courses and a division into groups which are taught separately affect the later study possibilities and results of the pupils considerably, it is thought better not to carry out this differentiation until the higher level of the basic school (the seventh to ninth years) has been reached. At this level the class is divided into separate instruction groups only in respect of mathematics and foreign languages. The transition from a lower group to a higher group and vice versa is intended to be as flexible as possible. This helps those whose capacity for more exacting studies is late in developing. During hours allocated to optional subjects the school arranges supporting instruction for those pupils who cannot keep up with their class or group in order to bring them up to par or to enable transfers to a higher group. Special education is arranged for physically or mentally handicapped pupils.

Abstract prepared by Mr. Voitto Kallio, Ministry of Education, Helsinki.
Under the adult education system of Finland a study circle is a working unit based on voluntary membership and aimed at fulfilling the educational needs of its members through group studies in accordance with a study plan drawn up in advance. The study circle elects a leader, chooses its subjects of study, and approves its study plan. The membership of a circle varies between 5 and 25 but is usually between 10 and 15.

Study circles are usually set up within some organization and on its initiative. In order to promote study circle activities efficiently, several organizations have joined in the founding of national study centres for the purpose of guiding study circles. Such centres prepare study directives and other study material, give advice and arrange courses for the leaders of circles.

The Government has supported study circles since 1921 by granting study centres, and through them study circles, financial aid on an annual basis. The amount has varied considerably and without sufficient relation to needs. In order to eliminate this drawback and in view of the general tendency to regulate by law government support to adult education or to define it as a percentage of the actual expenses, the Diet of 1964 adopted the Act on Government Aid for Study Circles.

The study circles which are supported by government aid are also subject to government control, exercised by the National Board of Schools. The national study centres, which guide and supervise the study circles...
which have joined them, are also subject to the control of this Board.

The Ministry of Education authorizes the founding of a study centre if its activities justify it and if no less than 600 study circles (or 75 study circles in the case of the Swedish-speaking population) belong to the centre. The statutes of the study centre and the nomination of the study leader are approved by the National Board of Schools. The study centre receives government aid from a budget appropriation.

A study circle which wishes to receive government aid has to join one of the national study centres of which there are five at present. The study centre approves the statutes of the study circle as well as the study plan of the circle for each study period. A study circle is entitled to government aid: (a) if it holds no less than twelve study meetings between September 1 and May 31; (b) if it has no less than five members who shall be not less than 15 years of age.

Government aid is granted to study circles for expenses incurred through: (a) the purchase or borrowing of study material; (b) costs for correspondence courses; (c) rent and other costs for premises; and (d) the fee paid to the study leader. The Ministry of Education fixes annually the maximum amount up to which a study circle may receive government aid.

Government aid is paid to a study circle upon the termination of the study period when the circle presented its annual report and the accounts for its expenses to the study centre. The study centre, which receives the necessary means from the National Board of Schools, pays the aid to the study circle. The National Board of Schools may empower the study centre to pay a part of the government aid to the study circles as an advance amount upon the commencement of their activities.

In comparison with the previous system of government aid for study circles, under which study circles received aid from an annual budget appropriation within the limits of available resources, the present system guarantees all study circles equal rights to receive government aid if they fulfil the requirements for receiving such aid. As government aid has, thus, become fixed
by law the study circles have begun to use salaried leaders to a much greater extent than before. The number of study circles has increased by almost a third since 1964 when the present system came into force.

Abstract prepared by D. Kosti Huuhka, National Board of Schools, Finland.
The development of Finnish universities and institutes of higher education since 1960 has been characterized by the rapid growth in the number of students which has doubled from the autumn term of 1960 to the autumn term of 1966 and is now more than 47,000. The Act, which was issued in 1966, and the Decree on the execution of the said Act outline the total development of these institutions during the next 15 years. The main aim of the Act and the Decree is to increase opportunities for study and research during the next few years.

An increase in the number of places for students at universities and other institutes of higher education should take into account those who aim at graduating, those who intend to take up research after graduating and those who intend to undertake other postgraduate studies. The number of places required at the end of 1981 has been estimated at 60,000. These will be distributed among the different disciplines as follows: 20,000 for the humanities, law, political and social sciences and other studies related thereto; 15,000 for natural sciences and for agriculture and forestry; 11,000 for technical sciences; and 6,000 for medicine. The remaining 8,000 places for which no discipline has been reserved are to be used for needs which may arise after 1970.

The concept "student place" signifies in this connexion a statistical unit in which teaching manpower, space for instruction, research and administration, and including material and other contributing factors,
needed for one full-time student are taken into account.

The buildings will be expanded and increased so that their floor space will satisfy the needs of teaching, research and administration by the end of 1981. Estimates of the available floor space will include both the premises held by the universities and those which have been permanently or temporarily ceded or let. For the disciplines of the humanities, law, political and social sciences and other related fields there should be on an average 5 square metres for each student place. For the other disciplines the corresponding floor space should be not less than 25 square metres. Estimates should include the floor space needed for the development of post-graduate research. Provision should also be made for proper equipment, collections and libraries when buildings are expanded.

The number of teaching posts and offices and the amount of teaching by appointment will be increased so that there will be at least 1 full-time teacher for 12 student places by the end of 1981 for humanities, law, political and social sciences and other related fields. For natural sciences, agriculture and forestry and technical sciences there will be 1 full-time teacher for 8 student places and for medicine 1 full-time teacher for 6 student places. Such teaching and guiding by appointment as is equivalent to the office of 1 full-time teacher is also counted as 1 full-time teacher. When it is not possible to use this manner of calculation, that part of the teaching by appointment for which the fees paid correspond in total to the annual basic salary of one assistant lecturer in the higher salary-grade plus the area allowance, is regarded as corresponding to 1 full-time teacher. Irrespective of the nature of his official position, a professor, teacher, assistant teacher and an assistant lecturer who participates in teaching or some other official activities is regarded as a full-time teacher if teaching work is his main occupation and may be compared with that of a full-time teacher.

The above-mentioned minimum figures may also be exceeded should the needs of up-to-date teaching, research or administration so demand. The Government is responsible for planning the development up to 1981 and for revising the plan every three years. The need for an increase of student places should appear from the plan taking into account the development of the
different institutions of higher education. A separate research institute is regarded as equivalent to a faculty or a specialized institute of higher education in the same field when estimating the needs arising from post-graduate research guidance.

The minimum expansion goals set by the Act and by the Decree completing it will be achieved as follows: by the end of 1969 not less than 7/45, of 1972 not less than 15/45, of 1975 not less than 24/45, of 1981 the remaining minimum expansion. Exceptions may be made to this time-table should the expedient organization of building or the procurement of material or the special needs of research or of officials in some field so demand.

Of the most recent publications in Finnish dealing with Finnish universities and institutes of higher education the following may be mentioned:


Abstract prepared by Mr. Seppo Kiiskinen, the Ministry of Education, Finland.
The document in question is a draft setting out a system of education for the Socialist Federal Republic of Yugoslavia, for consideration by the Federal Assembly in 1969. The proposals for the development and advancement of the system of education were prepared on the basis of work originally done by a number of commissions appointed by the Federal Secretariat for Education and Culture in Belgrade in 1963. In April 1968, the proposals were adopted at a joint session of the Federal Council and the Educational and Cultural Council of the Federal Assembly and are to be laid before the people for public discussion. The Federal Assembly is scheduled to consider and adopt the final text in the spring of 1969.

The proposals form an important document aiming at reforming the system of education in Yugoslavia in keeping with the requirements of the economy and the extension of self-management. They rank as a federal document and are to serve as a basis for the statutory instruments and regulations passed in the constituent republics of Yugoslavia. The federation adopts only general regulations, which are not themselves implemented but are used as a basis for legislation in the individual republics.

The proposals are divided into six chapters: (1) present-day general trends and developments in the educational system; (2) socio-economic foundations of educational development; (3) changes in the position and role of educational institutions; (4) aims of education; (5) guidelines for the development and advancement of the...
system of education; and (6) the system of education in the socio-economic circumstances of the day. The sixth chapter is divided into sections corresponding to the main divisions of the system.

The first chapter outlines the main characteristics of the development of the system of education and deals with the basic problems that have to be solved over the next period. One of the fundamental reasons for these problems has been the existing administrative and budgetary method of financing education which is now gradually being replaced by a new method based on the introduction of the "social educational communities" first set up in 1967. Allocations from taxes levied on the personal income of citizens are made to the educational communities' funds and these are available to the representatives of the working organizations and educational establishments, elected for fixed periods. The system of collecting and distributing the funds earmarked for education thus bypasses the government apparatus.

The second chapter states the principles which guide educational thought throughout the social system. Starting from the principle that education is a specific social activity, an integral factor in socio-economic development, and that of society and its culture, and one of the essential elements of social development, it notes the need for stronger links between the educational and economic spheres and for the establishment of direct communication between working people employed in educational establishments and working people in need of education. These reciprocal links are made possible by a system of self-management, which provides the basis on which citizens, as the source of finance for education, can increasingly exercise their influence upon policies aimed at developing educational activities. The proposals propound the view that the citizens and their associations should cooperate and pool their financial resources and so defray the cost of the educational establishments and take a hand in directing the educational development of children, young people and adults alike.

The third chapter deals with the school as a social and self-managing establishment which plans its own work and progress and adopts the organizational and instructional measures which will best fit it to perform its social functions as a successful educator. The proposals stress the importance of self-management by the teaching and ancillary staff of every school and the importance of self-management by pupils and students.
The fourth chapter defines the aims and tasks of education as the many-sided development of the human personality and the process of equipping young people and adults for production and other forms of work of value to the community.

The fifth chapter stresses the need for carefully thought-out long-term social activity designed to develop and advance the system of education steadily in keeping with the development of science, technology and the organization of a socialist society. It is particularly stressed that the system of education does not mean merely schools, but also extends to other educational establishments and forms of activity. All schools should be schools for adults as well as for children and young people. Education combined with work (correspondence courses, extra-mural studies, and the like) is given the same standing as regular education.

The sixth chapter sets out the changes deemed necessary in different parts or at different levels of the educational system. Pre-school education is regarded as being of great importance to the success of primary school education and at the upper end of the system.

As regards primary education, a case is made out for full eight-year primary education in its different forms, with a recommendation that the children should enrol in primary schools when they are six (subject to medical examination and approval by educationists and psychologists) and stress is laid on the need to introduce extended and full-day attendance by children in primary schools, as well as to employ primary schools for adult primary education.

The proposals note that secondary education lags furthest behind progress in society as a whole and therefore they propose reform of the existing secondary schools, a higher level of general education in all secondary schools and a postponement of specialization directed towards the individual professions until pupils are 17 years old. In all secondary schools pupils should begin by studying general subjects and laying the foundations of their technical education and only later switch over to vocational training. Education at the secondary level would then be divided into two levels: preparatory and final. At the preparatory level pupils would study subjects which gave them general culture, mathematics, the natural sciences, with an introduction to technology and practical work. On completing the first phase
some of the pupils would enter industry and there attend shorter or longer study courses to acquire the skills needed for particular work. The remaining pupils would either continue their education in technical schools or attend the higher forms of the secondary schools. Pupils who completed their technical and secondary education could then go straight on to the universities and the higher technical schools.

The establishments for higher education are asked to give up the practice of requiring studies of uniform duration and to devise suitable combinations of compulsory and optional subjects capable of providing a variety of educational choices, in keeping with the requirements of the economy and the interests of individuals. The new thinking on higher education means that establishments should be more firmly linked with the economic and other working organizations so as to secure some part of the funds needed for their development.

A separate section of the proposals devotes special attention to adult education. Adult education becomes a permanent process which continues after formal qualifications have been acquired. It tends increasingly to impart knowledge of the latest scientific and technical achievements so as to put them into practice.

The section on the training of primary and nursery school teachers requires that they be educated to at least the senior secondary-school level, necessarily including pedagogical and psychological training as well as the study of socio-economic elements of education.

The last chapter outlines the system of advancement of education in keeping with scientific progress and social change, and with the development of instructional and teaching techniques. In this the schools are helped by institutes for the advancement of teaching, teachers' training colleges, and vocational and scientific societies.
This bulletin gives particulars of the number of schools, departments, pupils and teachers in school centres at the end of the school year 1965/66. The information is so presented in the relevant tables that, analyzed in conjunction with the various parameters, it gives a clear picture of primary and secondary schools.

The bulletin begins by illustrating the growth of the primary and secondary schools with a year-by-year survey from 1959/60 to 1965/66 of the number of schools, departments, pupils and teachers. From this information, inter alia, the following picture emerges:

There has been no substantial change in the number of schools over the past seven years. In 1965/66 there were 14,417 primary schools, while in 1965/66 there were 14,147, i.e. 270 fewer in all. This reduction was largely the result of merging small schools. However, the number of primary school pupils rose by 355,944 i.e. by 13.7%, from 2,589,576 to 2,945,520 over the same period. The increase in the number of pupils was largely due to the fact that increasing numbers of pupils leave the fourth grade of their primary school to continue their education in the senior grades (V-VIII) of the primary (eight-year) schools.

In all secondary schools covering the 15-19 age group, there is a noticeable increase in the number of both schools and pupils. For example, from 1959/60 to 1965/66, the number of technical and other vocational training schools (technical and agricultural schools,
schools of applied economics and medicine, and so on) rose from 298 to 539 (i.e. by 80%), and the number of pupils from 89,967 to 199,362 (122%). There was also a marked increase in the number of grammar school pupils from 78,750 to 177,237 (125%). In terms of school categories, the highest increase in the number of pupils in this period was registered in the medical schools, which rose from 6,767 to 27,290 (303%).

The number of schools for skilled workers (schools for industrial apprentices and schools offering practical tuition) fell by 40, i.e. by 5.6%. This reduction was the result of the abolition of a number of schools for industrial apprentices in the smaller towns which did not possess all the requisite facilities to train pupils in the latest methods. However, the number of pupils in these schools rose markedly from 131,384 to 199,301 (52%) between 1959/60 and 1965/66.

Since Yugoslavia is populated by other nationalities as well as Yugoslav peoples, the bulletin furnishes a comparative survey of schools provided for members of different nationalities. In these schools there is a noticeable increase in the number of primary schools for children of Shqipetar nationality which rose from 125,077 in 1959/60 to 176,723 in 1965/66 (41%).

A special table gives a survey of schools according to the teaching language, republic by republic. This shows schools in which the teaching language is that of one of the Yugoslav peoples (Serbo-Croat, Slovene and Macedonian) and schools in which the teaching language is that of one of the different nationalities (Shqipetar, Hungarian, Turkish, Bulgarian, Czech, Italian, Romanian, Slovak).

The bulletin then goes on to survey all schools for the whole of Yugoslavia and republic by republic in 1965/66, according to categories, giving the following parameters: number of schools, departments, pupils and teachers.

Primary schools are also classified according to their stage of development, particulars being given of 4-year, 5-year, 6-year and 8-year schools. Out of the total of 2,945,520 pupils at the end of 1965/66, 4-year schools are shown as being attended by 523,751 (18%) of the pupils, 5-year schools by 102,486 (3.4%), 6-year schools by 46,356 (1.5%), and 8-year schools by 2,272,927 (77.1%) pupils.
The data relating to schools for skilled workers are shown both for the total number of schools and according to trade (schools for more than one trade, schools for metal workers, electrical technology, textiles, catering etc.). The survey of technical and other vocational schools gives data for all types of school falling within these categories.

Other types of secondary school are also covered: teacher training colleges, namely secondary schools for primary and nursery school teacher training (these schools now exist only in the Republics of Serbia and of Bosnia and Herzegovina); colleges of physical training and of domestic science; schools of music, ballet and the applied arts; grammar schools.

In recent years school centres have been started as a new organizational form of educational establishment. These are self-contained comprehensive educational units each including at least two recognized schools for general education or vocational training. In 1965/66 there were 210 school centres; the total number of schools within the school centres amounted to 609, having 136,231 pupils. The most numerous among the school centres were those comprising schools of different types (35). These were followed by metallurgical school centres (21), trade (19), agriculture (14), textiles (13), building (10), and electrical engineering (10).

Foreign languages are taught in the primary schools (starting with the fifth form, at the age of 11) and in all secondary schools, with a choice of one of the following four languages: Russian, English, French and German. One of the tables gives data for foreign languages in all types of school, republic by republic, indicating the number of pupils studying a foreign language. In the primary schools, for instance, in 1965/66, the majority of pupils studied Russian (609,723), followed by English (295,915), French (193,448) and German (191,098). In the technical and other vocational schools the order is somewhat different: German was studied by 57,894 pupils, English by 51,875, French by 40,350 and Russian by 48,622 pupils.

Several tables give fuller details of the degree of success attained by pupils. An analysis reveals, among other things, that a relatively high percentage of the pupils have to be kept in the same form for another year owing to failure. For instance, in 1965/66, 12.4% of all primary school pupils had to repeat their years.
schools for skilled workers the percentage of repeaters was 12%, in technical and other vocational schools 17%, and in secondary grammar schools 16.5%. The analysis shows that in primary schools the highest proportion of repeaters occurs in the senior forms (V-VIII). While 8% of the pupils enrolled had to repeat their fourth year in 1965/66, 18% failed their fifth year, 18.1% their seventh year and 7.6% their eighth year.

In secondary schools, the first-year pupils fared worst. The percentage of pupils who failed in grammar school in 1965/66 was: 24% in the first form, 18% in the second form, 13.2% in the third form and 5% in the fourth form. A similar situation obtains in other schools.

A special table gives particulars of the number of pupils (regular and extra-mural) who were successful in 1965/66, both according to school type and republic. Of the primary school pupils 232,792 completed their course. In the schools for skilled workers, 59,744 pupils completed. The highest number of successful students is in metal processing (21,603 or 32.2%), followed by the trade schools (9,885 or 16.5%). A total of 36,034 pupils successfully completed their education in the technical and other vocational schools. The highest proportion of these were in business colleges (13,636 or 38%, followed by technical schools (12,824 or 33%) and medical schools (4,656 or 13%). A total of 28,384 pupils emerged successful from their grammar school. The number of adults who successfully completed their education in schools for adults was 22,101. Of this number, the primary schools accounted for 10,846, and all other schools for 11,255.

A table gives particulars of grants to pupils, classified according to school type and republic by republic. The majority of those in receipt of grants are to be found among pupils attending technical and other vocational schools (15,265), schools for skilled workers (13,255) and teacher-training colleges (4,838).
<table>
<thead>
<tr>
<th>Author</th>
<th>Pavlović M. and Stamenković, V.</th>
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<tr>
<td>Title</td>
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<tr>
<td>Bibliographical data</td>
<td>Beograd, Zavod za izdavanje udzbenika Socijalističke Republike Srbije, 1967. Str. 142</td>
</tr>
<tr>
<td>Translation</td>
<td>The Secondary Education Act: with commentary and explanation</td>
</tr>
<tr>
<td>Keywords</td>
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The Assembly of the Socialist Republic of Serbia in 1967 passed the Secondary Education Act, which reforms the system of secondary education.

Candidates for secondary education are required to have completed the eight-year primary course. For regular pupils (young people) tuition is free, while for adults tuition may be provided free if the 'education communities' and the 'working organizations' and other bodies concerned supply the funds. Otherwise, tuition is not free for adults, who have to pay the full cost of their studies. (Note: 'Educational communities' (zajednice obrazovanja) embody a new concept of self-management in the field of education. They decide on the distribution of communal educational funds and discuss matters of common interest in the sphere of education. A 'working organization' (radna organizacija) is a form of organized social activity: for example, a school, a hospital, a theatre or an economic enterprise.)

An innovation in this Act is the clause under which secondary education is organised and provided both in secondary schools and in other establishments and in industry, if the facilities offered by the latter meet certain conditions prescribed by the Act itself.

The Act establishes the following school system:
1. Schools for technical and allied occupations in the economy and other activities of value to the community. The Act does not enumerate these different school types because there are so many of them, but its provisions...
apply to all existing kinds of secondary school in Serbia, such as the various technical, commercial, agricultural, medical and other schools. These equip pupils for work requiring various extensive professional skills.

(2) Schools for skilled workers in the economy and other social fields. In the educational system to date the training of skilled workers has been carried out in schools for apprentices and in practical training schools. This Act reorganizes the two types of education into a single type which teaches the pupils the theory and practice of different trades and equips them to do work in these fields. As a rule, theoretical tuition is given at school, practical training on the shop floor. Furthermore this school accepts and enrols pupils under the same conditions as all other secondary schools. The Act does not envisage the signing of a contract between individual students and the working organizations as a condition of enrolment.

(3) General technical schools. These are a new type of secondary school. Apart from a basis of general knowledge, they provide students with general technical education (in agriculture, industry, and the service sectors for example), they equip pupils for work in jobs which require no specialized knowledge, and they also provide further education.

(4) Teachers' colleges and schools for pre-school teachers. Teachers' colleges prepare students to teach in primary grades I – IV; schools for nursery training prepare students to work in pre-school establishments. The Act also provides for pre-school teacher training departments attached to teachers' colleges.

(5) Grammar schools. They offer general secondary education to prepare pupils for higher education. Grammar schools may prepare pupils for individual practical activities if prevailing conditions warrant this. A further reflection of characteristic trends in the provisions of this Act is the abandonment of grammar schools of the traditional type. Grammar schools as a rule have a socio-linguistic and a natural science and mathematics stream, they may be organized as specialized schools (mathematical and so on), and they may provide for the teaching of individual subjects or groups of subjects in a foreign language.

(6) Schools of fine arts and music. These include schools of music, ballet, acting, schools of the applied arts, and schools specializing in different branches of the arts. An innovation here is that schools of music may train students to teach in certain conditions.
Under the Act, the secondary schools may also be organized as 'school centres', which may be: schools offering training in different kinds of work within one field or allied fields, or a separate school community consisting of schools which train staff for one field or allied fields. Secondary education may also be acquired in industrial and other organizations (workers' and people's universities, education centres in working organizations, centres set up by different economic sectors, and so on). Those acquiring secondary school education in these establishments must fulfil all the conditions required of secondary school pupils except that of age (i.e. they may be over 17).

The Act gives prominence to the educational content of school work. Tuition programmes and curricula are prepared for the various types of secondary school by the Education Council of the Republic. Within the framework of the official programme and general curricula every school formulates its own syllabus in keeping with the requirements of the economic and social spheres of activity which will benefit by its work.

The Act closely defines the educational work performed by the schools. This is described by the Act as including: tuition, practical vocational work and work at production level, the extra-mural activities of pupils, examinations and assessment of pupils' work. The tuition programme and curricula determine the aims, content, duration and content of the practical vocational work (i.e. in teachers' training colleges, schools of medicine, business management schools and so on) and of the work at production level (i.e. in schools for skilled workers and in a number of technical and allied schools). The organization and form of the practical vocational work or work at production level are in the hands of the Teachers' Council in consultation with the working organizations concerned.

The statutory duration of secondary school education is four years. However, the general regulations on tuition programmes and curricula formulated by the Assembly in respect of all secondary schools contain a clause, enabling certain kinds of school to run longer or shorter courses, provided they do not last less than two or more than five years.

The Act recognizes the following categories for teaching and other personnel engaged in educational work in the schools: (a) teachers in charge of theoretical
subjects and other work arising from the school's educational activities; (b) teachers in charge of practical work (giving lessons in practical work and doing other work arising from their school's educational activities); (c) ancillary teaching staff, i.e. laboratory assistants, demonstrators, practical assistants, all working under the direct supervision of the teacher concerned; (d) fully qualified members of the staff, who have no teaching duties, but are concerned with the professional work connected with the school's educational activities (educationists, psychologists, medical officers, social workers, librarians, and so on). Teaching personnel and vocational training teachers are to be appointed on a competitive basis by the teachers' council of the school, in the light of the recommendations of a Selection Board, set up at the school for that purpose.

The Act represents a significant step forward in the direction of self-management in the schools. Under the Act, the school is managed by its working community both directly and via the governing bodies. (Note: a 'working community' (radnu zajednicu) consists of all the members of a working organization.) Schools are to be governed by: the school council, the teachers' council, and the principal. The Act defines the functions of each of these organs.

The basic forms of direct school management are: assemblies or meetings of all the teachers and other staff members; and referenda. The questions dealt with are to be specified in the 'School Rules' (for instance the allocation of money from the joint working fund, the school's work programme, and so on).

An innovation is that schools and other establishments offering secondary education may merge to form communities (for example, grammar school communities, teacher training school communities and so on). The Act also defines the scope of these communities.

A separate chapter of the Act deals with various aspects of the setting up of secondary schools, changes in their Rules, and their abolition.
This book deals with the inception and development of pupils' self-management from the earliest times until today. It opens with a general review of developments. Pupils' self-management in the USA is dealt with in Part Two. Part Three is devoted to pupils' self-management in schools in the Soviet Union. Part Four deals with pupils' self-management in teaching theory and school practice in Yugoslavia, and it is Chapter Five of this part that forms the subject of the present abstract. The forms of pupils' self-management in school practice discussed by the author are: pupils' associations; pupils' co-operatives; sports clubs; cultural and artistic societies; and the League of Pioneers.

Pupils' associations. The place and role of pupils' associations are laid down in the Law on the Social Administration of Schools in the following terms: "With the aim of developing initiative, self-dependence and a sense of discipline and responsibility among pupils for their work and success at school, and as an active aid to teachers in carrying out the schools' tasks, pupils in comprehensive secondary schools and pupils in all technical schools shall form pupils' associations for each class and for each school".

Pupils' associations at the class level comprise all the pupils in a class or section; those at the school level comprise all the pupils in the school. Pupils' associations are formed in all secondary schools and in the top (VIIIth) class in primary schools.
After explaining how the class and school associations are constituted, the author points out that, in running both kinds of association, separate committees are very often set up, for instance, committees on learning, on cultural life and entertainments, on the development of free activities, on general school matters on social questions, and on problems of school attendance, etc. The conclusion is reached that the content of the work of the associations is not the fruit of pre-conceived and predetermined statutory orders, but rather, and above all, the result of the initiative and daily needs of the pupils themselves; consequently, it is neither constant nor does it proceed according to any given organizational formula.

Turning to the forms and working methods of the associations, the author emphasizes that public discussion of various happenings in the school is one of the most prevalent forms, illustrating this by examples. Another form often met with is the information meeting. Such meetings are most commonly resorted to when the pupils have to be told of new measures which it is intended to take at the school, or of the decisions taken by the officers of the school associations, the school council, or the teachers' council. A third type of meeting is that at which specific decisions are taken. Proposals are made for disciplinary punishments or rewards for individual pupils, reports on conduct are put forward and approved, absences from school are justified, and so on.

The author then reports the opinions of teachers and pupils on the associations. By way of example, he says that of 159 teachers consulted, 93% said that the work of the pupils' associations was conducive to the development of frank and close relations between teachers and pupils. Ninety-one per cent felt that the development of moral sense and of mutual friendly relations among the pupils was encouraged.

Pupils' co-operatives. These co-operatives are a form of organization of free activities in the primary school that makes it possible to introduce into the curriculum features of the child's productive work that have an educative value. Apart from this, pupils' co-operatives help to bring children together - they are a form of self-management based on productive activity in all its aspects. Hence, pupils' co-operatives are an inseparable part of the curriculum of primary schools and of a complete general education.
The author asserts that, according to the practical results already achieved, the majority of pupils' co-operatives at village schools concentrate on agricultural production, followed by fruit farming, market gardening, animal husbandry, and housework. Many of them are of the mixed type, i.e., they cover all, or nearly all, forms of agricultural production. In the towns, the pupils' co-operatives concentrate on industrial or handicraft production. At many schools there are savings and marketing (producers and consumers) sections in the co-operatives.

Like any other permanent organization, the pupils' co-operative has its own administrative bodies that direct the work and train the children. In current practice, pupils' co-operatives have the following active institutions: the annual general meeting, the board, the management and supervisory committee; and the court of honour (disciplinary tribunal). The author gives a detailed account of the functions of each of these organs and illustrates it with examples from the work of individual co-operatives.

The work of the co-operatives also shows a clear profit, according to the volume of production and the kind of goods they produce. The author accordingly has something to say at the end of this section about the distribution of income in the co-operatives.

Sports clubs. These clubs have come into being outside the framework of formal sports instruction. They represent an attempt to satisfy those individual interests of the pupils in sporting activities for which it has not been possible to provide regular instruction.

Pupils' sports clubs are voluntary; the children join them as their personal inclinations and interest move them. In the Socialist Republic of Croatia there are 968 primary and secondary schools with sports clubs, against 1,636 schools with no such institutions. The total membership of the clubs at these schools is 112,950.

The sports clubs are divided into sections. The most highly developed are: football, handball, athletics, table tennis, boxing, basketball, swimming, shooting, etc. Their substantive work depends on a number of factors. It can be broken down into the following basic activities: general sporting activities; exercises to a
...ard programme with a view to competition; competition; open-air (nature) activities; and sporting activities during the summer and winter holidays.

Cultural and artistic school societies. These are another valuable means of social education and training. They operate within the framework of free activities, and consist of separate sections, such as: literary, dramatic, music, folkloric, artistic, cinematographic, editorial (newspapers) and journalistic.

Through the wealth and content of their work, cultural and artistic societies provide a large number of children with an opportunity of self-expression and of satisfying their individual longing for artistic experience and expression; they are therefore a powerful instrument of 'internal curriculo-methodological differentiation in education. As self-managing pupils' organizations, the are a very convenient form and method of bringing the pupils into the public life of the school.

The Pioneers' League of Yugoslavia is a nationwide association, embracing all Yugoslav children and all organizations in which their socialist upbringing is assured. All children of primary-school age are Pioneers. The aim of the organization is, together with other associations, through its specific tasks and its special working methods, to promote the fullest possible realization of the general and social aim of bringing up the nation's children.

A description of the organizational structure of the basic groups of the Pioneers' League in the schools is given. The main purpose of the Pioneers' League and the reason for its existence is: to make the children's lives worth-while and interesting; to develop comradeship and solidarity among the pupils; to promote self-management among them, and to organize and systematically stimulate the children in their work and learning. In addition to these general tasks, the Pioneers arrange school ceremonies to celebrate such anniversaries as National Day, Army Day, the First of May, Women's Day etc., and organize individual competitions between class associations in learning and cultural behaviour. In some schools, practical activities, such as the arrangement and maintenance of the school garden, parks, playing fields, general surroundings etc., play a prominent part in the work of the Pioneers.

Abstract submitted by Jugoslavenski zavod za proučavanje školskih in prosvetnih pitanja, Belgrade.
Testing the level of knowledge of children on enrolment in the first grade of the primary school

Yugoslavia
primary entrants
learning readiness
- reading
- mathematics
- natural science
- social studies

primary education
scholastic attainments
child psychology
student orientation

The current approach to teaching presupposes a thorough acquaintance with the pupil. Without this, neither meaningful planning nor proper carrying out of the work of bringing up and training children is possible. Getting to know them is specially important on their enrolment in the first grade of primary school.

In May 1967, the Institute for the Promotion of Primary Education in Zagreb organized a study on the level of knowledge and the powers of assimilation of children enrolled in the first grade. The investigation had the following aims: to measure in part the level of knowledge in the rudiments of literacy, mathematics, nature study and social studies; to acquaint the children with their new surroundings, teachers and fellow pupils; and to allow teachers to get to know the children and to prepare them for school work.

The methods of investigation were worked out by the Institute with the help of its collaborators. The investigation was carried out at 25 Zagreb primary schools. It covered rather more than 1,800 newly-enrolled first-grade pupils corresponding to 23.75 per cent of all such pupils in the urban district of the City of Zagreb and the immediate surroundings. The children can be regarded as representative of the area in question, and sound conclusions about their level of knowledge on entering primary school for the first time can therefore be drawn.

The schools arranged for the new pupils to visit them for five or six days between 15 and 30 June. The
visits were organized in such a way that the children spent at most two teaching periods in school each day. During this time, each school organized, according to its facilities and possibilities, various kinds of games, entertainments and other occupations.

The children were examined with the help of problems designed to test their level of knowledge of the rudiments of literacy, their degree of development of mathematical notions, and their knowledge of nature and society. While the groups of children were playing or taking part in some organized activity, individuals were called out for testing.

The examination was supervised by the educational psychologist, at schools which had one, or by an experienced teacher, in a precisely determined manner. It was carried out in the following order: first day, knowledge of nature and society; second day, rudiments of literacy; and third day, development of mathematical notions.

The analysis of the results of the investigation are presented in three sections.

(1) The aim of the examination in the rudiments of literacy was to find out: (a) how many children among the newly-enrolled pupils could read and write; (b) how many could only read; (c) how many knew all the capital and small printed letters of the alphabet; (d) how many knew all the printed capital letters; (e) how many knew most of the printed letters; (f) how many knew only a few letters; and (g) how many knew no letters at all. The data showed that more than 20% of the examinees (questions under (a) and (b)) had mastered the hardest phase of the beginnings of reading and writing, or of reading alone. The second category of examinees (questions (c), (d) and (e)), comprising those children who more or less knew the alphabet, accounted for 31.6% of the total. Taken in conjunction with the first category this means that half the newly enrolled pupils tested definitely possessed the rudiments of literacy. The percentage of the children tested who did not know a single letter was relatively low (20.30%).

It was concluded from these figures that teaching needs to be more and more differentiated. Apart from this, at least for the 52% of pupils who gave satisfactory answers to the questions (a) to (d) — or for an even greater proportion — the so-called preparatory
period in the early teaching of reading and writing, and
the phonetic analysis and synthesis of words, should not
be unduly prolonged. On the contrary, pupils should be
put straight on to the reading and writing of texts,
any gaps in their analysis and synthesis being made good
at the same time, to enable them to master as quickly
as possible the technique of reading and to turn it to
practical account in the acquisition of fresh knowledge.
The rest of the entrants should be systematically ini-
tiated into the analysis and synthesis of sentences and
words, and those who have difficulty in assimilating
should at once be given additional instruction.

(2) The results of the investigation into mathematical
notions showed that the newly enrolled pupils had a
very broad grasp of this field. They correctly solved
two-thirds of the problems set. The arithmetical aver-
age of the results for 1,911 pupils was 36 out of a
possible 56 marks.

The problems by means of which differentiation be-
tween magnitudes and the recognition of the outlines of
figures were tested were correctly answered by 93-98% of
the examinees. Cardinal numbers were familiar to
69-83% of the children examined, and 83% understood the
motion of "half". More than 75% knew how to read the
figures 1 to 5, more than 50% those from 6 to 10, and
so on.

The examinees further showed that they could
successfully do simple sums involving figures up to 5;
they were less successful with those involving figures
up to 10; and results were very poor for figures be-
tween 10 and 20. Subtraction was not clear to them.

Taken as a whole, the results revealed that a large
proportion of the children tested had mastered the basic
mathematical notions and operations, and that their
level of knowledge was higher than expected, which again
indicated that the preparatory period in mathematics
should be reduced. Indeed, teaching schedules should
be drawn up on the basis of what the children know.

(3) The problems for testing the \textit{level} of knowledge in
nature study and social studies covered the area of the
home, nature and man's work in the child's neighbour-
hood, the most important institutions, the notions of
village, town, the country's name, the ability to tell
approximately the time of day and where they were,
personal hygiene, and events from the country's recent
The results obtained in this part of the examination showed a high proportion (72%) of correct answers. The arithmetical average was 34 marks out of a maximum of 49, individual results ranging from 0 to 49 marks.

From the results of the investigation as a whole it can be said that by the time they reach school-enrolment age the children from the district studied have achieved the necessary mental maturity for regular schooling. Within the urban area of the City of Zagreb, this is largely the outcome of parental upbringing, for 88% of children there do not attend pre-school educational institutions.

The adaptation of teaching methods and procedures to the child's level of development is of great importance. The investigation brought to light large differences between one child and another. From the summary review of the results of the study it can clearly be seen what fund of knowledge and, to a lesser extent, what skills and habits children have.

Individual differences between children enrolled in the first grade can be appreciated only in those schools which carry out individual tests; yet these differences must be taken into account when the teachers' work is being organized.

Such testing and observation of the children during the month of June are believed to be of inestimable value and significance for future work in the course of their regular schooling. The results provide important information for the teacher when making up his sections in the first class, planning the year's work, fixing the pace at which instruction is to proceed, organizing work with individual children, working out the intensity and scope of homework and the like.
Data are published relating to the enrolment of students and to teaching staff at the institutions of higher education in Yugoslavia (universities, academies of art, schools of higher education and colleges) for the winter semester of the 1966-67 academic year with comparative data from earlier years.

The data are presented in four separate groups, each complete in itself.

(1) The first group of tables gives a comparative review of students enrolled and teaching staff for the years 1938/39 and from 1963/64 to 1966/67. The figures indicate, among other things, the great growth in the number of higher educational institutions and students during the post-war period in comparison with the pre-1941 situation. Thus, in the academic year 1938/39 there were only 26 institutions of higher education, with a total of 16,978 students (including 3,956 women); but since the war these numbers have increased more than tenfold. In the academic year 1966/67 there were 267 such institutions in all, with 195,454 students, made up as follows (the corresponding figures for 1938/39 are given in parentheses in each case): 97 university departments (faculties) with 111,232 students (18 faculties 15,545 students); 14 academies of art with 2,030 students (4 academies, with 228 students); 16 schools of higher education with 6,848 students (2 schools, 986 students); and 140 colleges with 75,344 students (2 colleges, 259 students).

(2) The second group of tables presents a series of...
analyses of the students enrolled for the winter semester of the 1966/67 academic year; this gives a complete picture of higher education in that year. The data on the number of students enrolled and of teaching staff and auxiliaries are given for Yugoslavia as a whole, then for each Republic separately, followed by individual figures for each faculty, academy of art, school of higher education or college.

The data show that in the academic year 1966/67 there were 97 faculties in Yugoslavia, covering the following fields of study: philosophy; philology, natural sciences and mathematics; technical subjects; architecture; building and surveying (Ljubljana); architecture and building (Skopje); building; surveying (Zagreb); engineering; communications (Belgrade); shipbuilding and marine engineering (Zagreb); electrical engineering; electrical and general engineering (Skopje); chemical engineering; mining and geology; mining and metallurgy (Bor); metallurgical technology (Skopje); mining (Tuzla); metallurgy (Zenica); agriculture; agriculture and forestry (Skopje); biotechnology (Ljubljana); forestry; veterinary science; economics; law; law and economics; political sciences; medicine; dentistry; and pharmaceutics. The largest number of faculties (38) falls into the technical group, followed by faculties of law (11), economics (10), and medical schools (8).

The technical faculties also lead in students enrolment (31,077 including 5,589 women); they are followed by law (17,885, including 5,742 women), philosophy (16,070 including 9,582 women) and economics (14,362 including 5,344 women).

Academies of art, which comprise the schools of graphic arts and of applied art and the academies of music and of dramatic art, numbered 14, with a total of 2,030 students, including 829 women.

There were 16 schools of higher education with a total of 6,868 students (including 1,539 women). Such institutions include: the higher industrial educational school (Rijeka); the pedagogic academy at Maribor; the higher school of rehabilitation (Zagreb); the higher schools of physical training; the higher school of music (Skopje); the higher technical engineering schools; the higher agricultural school (Osijek); the higher schools of economics; the higher school of administration (Zagreb); and the higher schools of politic-
A feature of the development of higher education in Yugoslavia since the war has been the establishment of a large number of colleges of different kinds. Whereas in 1938/39 there were only two such establishments (both teacher training colleges) with 259 students, in 1966/67 there were 140 with 75,344 students. They included teacher training colleges; pedagogic academies, technical engineering colleges; technical building colleges and a wide range of other specialized colleges.

The teacher training colleges, i.e., those in which primary school teachers are trained, have the largest number of students (28,297, including 14,441 women). Next come the business and commercial colleges (18,234 students, including 6,944 women), followed by the technical colleges (11,497 students, including 1,559 women).

A second feature of the development of higher education since the war also calls for emphasis, namely the introduction of external study. Whereas in the 1938/39 academic year there were no external students, in 1966/67 there were 62,775 such students (representing 32.1% of the student body) at faculties, academies of art, schools of higher education and colleges.

The second group of tables also gives data on foreign students attending Yugoslav universities; in 1966/67 there were 2,019, including 219 women.

Data on the previous education of regular students are another feature of the second group of tables. Out of a total of 67,616 newly-enrolled students only 33,812, or 50%, had attended a conventional secondary school (gymnasium). The rest had been to technical or other specialized schools, or lacked the appropriate training, qualifying for enrolment by passing a special entrance examination. The tables show that the gymnasium is no longer the sole source of students entering institutions of higher education, as it was before the war. In some faculties the number of students enrolled from gymnasium is actually lower than that of students who have attended technical or other specialized schools; such is the case, for example, in the engineering and economic faculties. A similar situation obtains in the colleges. For instance, out of 24,891 newly-enrolled students at all colleges, only 10,656, or 42.7% had been to gymnasium the rest having
attended some other kind of school.

The remaining tables in the second group provide data on students by sex, length of course, and method of study (regular or other), as well as on their means of support while studying. In the 1966/67 academic year, 16,518 students were in receipt of scholarships, awarded mainly by the economic organizations, and to a lesser extent by local authorities (departmental and communal). Most of the scholarship holders are to be found in the engineering faculties.

(3) The third group of tables present data on teaching staff. The figures in the first table show that the total number of teaching staff and auxiliaries employed at universities, academies of art and schools of higher education was 11,797 (including 2,437 women), made up as follows: staff with indeterminate contracts, 4,253 (1,084 regular professors, 1,047 outside professors, 1,368 docents, 217 senior lecturers, 469 lecturers, and 73 other teachers); and short-term staff, 1,779. Auxiliary teaching staff numbered 5,760, comprising 4,344 with indeterminate contracts (137 readers, 227 scientific and technical personnel, 3,866 assistants, and 114 others) and 1,416 short-term personnel.

Data relating to teaching staff at colleges are presented in a separate table. The total number of staff at such institutions was 3,918 (including 710 women), of whom 3,209 (486 women) were teachers and 709 (224 women) auxiliaries.

(4) The fourth group of tables covers data on the schools run by the ecclesiastical authorities for the training of clergy (i.e., the theological faculties). The numbers of schools, students and teaching staff are given.

Abstract submitted by Jugoslovenski zavod za proučavanje školjskih i prosvetnih pitanje, Belgrade
In many countries Schools of Medicine are adapting study plans, teaching methods, and administrative systems to the demands made by scientific and technological progress and the changing society. Medical education in Mexico has not developed proportionately to the demand, owing to circumstances such as the need for experimental investigation that would permit sound development; the lack of publications designed to keep professors informed of developments; the need for specialists dedicated to study and to communicating pedagogic knowledge to the professors.

The problems in medical education require scientific and realistic solutions. The progressive increase in the number of students at the School of Medicine of the National Autonomous University of Mexico has caused some qualitative problems to become more acute. These should be resolved at the same time as the quantitative problems.

In recent years important meetings dealing with medical education have been held. The problems in this field have been discussed, ideas exchanged and a great interest awakened in the possibilities for its development. In 1967 the School of Medicine of the National Autonomous University of Mexico created the Medical Education Investigation Section (SISEM).

The background to the creation of the Medical Education Investigation Section was the belief that medical education must predict, in an evolutionary sense,
the needs to be met, so that professionals can be trained to satisfy present and future demands. In order to plan the modifications and adjustments required in medical education these predictions must be realistic and based on the factors that determine changes in the organization of the medical profession and in society. Furthermore, preliminary investigations are essential to ensure the success of any change.

The section has the following objectives: to carry out and promote investigations in the different areas of medical education; to distribute the information resulting from these investigations; to help solve problems in teaching and administration; to collaborate in the preparation of new professors.

In order to reach these objectives it will be necessary for the section first to obtain information on present conditions of medical education in Mexico and other countries, and on the human, material and financial resources available to ensure improvement. Its second concern should be to determine the teaching problems and their priority to investigate the causes and to propose solutions.

The procedures to be adopted by the SISEM should include: bibliographic revisions and explanatory and descriptive studies as a basis for the hypothesis to be tested; a scientific examination of the teaching-learning process in order to firmly carry through the necessary changes; an investigation of the school administration system leading to an efficient and dynamic system permanently adjusted to school needs.

The SISEM will organize conferences and seminars, on a permanent basis, on teaching methods, educational materials, study techniques, evaluation procedures, school administration etc. It will promote the award of scholarships to further relations between professors from different schools of medicine and from other educational institutions. Full use will be made of all available means to publish information on medical education.

The organization of SISEM presents the following characteristics: it avoids centralization of authority and of making one person solely responsible; it permits the group action of professors and technicians in different fields thereby assuming a comprehensive approach; it permits the formation of flexible teams adapted to
the work being done; it facilitates the collaboration of persons at a high level, according to needs; it maintains an indispensable minimum of permanent staff that can be temporarily enlarged when required.

SISEM consists of a Medical Education Committee comprising specialists in preventive medicine, education, psychology, and the social sciences. The committee is presided over by the director of the School of Medicine and the executive secretary of the school acts as secretary. It is responsible for the planning, general co-ordination and control of the work programmes. Different national or foreign specialists may be appointed temporarily as advisers and consultants to direct the work. A co-ordinator is in charge of each work-team, and if he is not a member of the committee, he may participate in the sessions when they deal with the planning, evaluation and control of his particular programme. Three services facilitate the activities of the work programme: the Medical Education Bibliographic Consultation Service, the Statistics Service, and the Administrative Service.

SISEM offers advice to professors interested in the investigation of medical education, particularly in the field of pedagogy, sociology, psychology, statistics, administration and investigation organization. It also offers a bibliographic and documentation service on medical education.

One of the most outstanding of the investigation projects being carried out at present is a study of the characteristics of first-year students in the School of Medicine.

Abstract submitted by Dr. Blanca Jiménez Lozano,
Directora del Instituto Nacional de Pedagogía, Mexico.
Comisión Nacional de Planeamiento Integral de la Educación

Enunciado general del plan


General outline of the plan

The National Commission for the Integral Planning of Education was established by the Secretary of Education in 1965 to study the quantitative and qualitative aspects of the educational system in order to predict its demands and to assure its development over short and long periods of time.

Three study groups were set up. The first group dealt with the quantitative aspects such as the prediction of school services determined by the expansion of the system until 1980 and estimates of the required human and financial resources. The second group examined the qualitative aspects of education in order to establish the appropriate content and methods to achieve the optimal yield from the intellectual investment of the country. The third group was responsible for evaluating the material contributed by the other two groups and directing the organization and realization of its conclusions.

When the General Report of the Commission was completed in March 1968, it was sent for comment to the institutions and departments that had taken part in its preparation. After revision, the Commission presented its final Report which includes the document summarized here entitled "General Outline of the Plan."

The document is a study of the problems of increasing the capacity of the system to produce graduates at the elementary, secondary and higher levels. It consists of three parts: the determination of the
demands in elementary teaching, and the quantitative and qualitative goals of the educational system.

1. Considering that the elementary level is the basis of the system and the departure point for later studies, the first part presents a thorough analysis of the problem at this level. The causes of low production in the elementary schools are: (i) the number of school-age children (aged 6 to 14) who do not have access to school owing to lack of capacity in the system; and (ii) the number of students who fail a grade or who temporarily or permanently leave school before completing the course.

2. The second part of the document establishes the quantitative goals. The first and most important goal is that by 1980 no child will have passed the compulsory school age without having completed the elementary school course.

To achieve this, the document proposes remedial courses in the schools to give an accelerated preparation to children who are two years above the normal age for their school grade. These courses would last six months, reducing the six-year course of study to six half-years. According to the estimates, this measure will permit those children beyond the normal school age to regain their appropriate classes before 1974. In this way the system will be able to absorb a much greater number of children. Providing schools for all children in rural communities will require a special plan that establishes courses and schools for accelerated and remedial teaching and enables the communities themselves to participate.

The second quantitative goal will be that, by 1970, all children graduating from elementary school can register in first year of the basic cycle of secondary education or in the "Work Capacitation Centres", which prepare elementary school graduates for training as skilled labourers through basic technical instruction.

The third quantitative goal is that, by 1970, the first year enrolment capacity of the superior cycle in secondary education satisfies the actual demand of the basic cycle graduates. The establishments in the superior cycle make up the baccalauréate and vocational schools providing preliminary professional and technical training.

The fourth quantitative goal is that, by 1970, the enrolment capacity in the first year centres of higher
learning satisfies the actual demand of the secondary school graduates. As a high index of premature leaving is also observed at the higher level, the document proposes that any student unable to finish his professional studies should be able to choose an alternative course in the field he was studying.

3. The third part of the document enumerates the qualitative goals of the educational system at each level.

For the pre-school level: study plans and programmes to be modified; state-supported nursery schools exclusively for children of farm labourers and other low-income sectors of the population; the principal task of nursery schools in Indian communities should be to teach Spanish to the children so that they may enter elementary school without difficulty.

For elementary education: the elementary school programmes to be adjusted to the social and physical environment; a programme of ability development and training to be introduced that will prepare pupils for future productive work; schools for special pupils and remedial services for children who fail to be increased; medical and welfare services to be expanded in schools for children with development and nutrition problems; free textbooks and workbooks to be consistently distributed; aptitude development of students to be systematically recorded in order to give them proper vocational guidance; guidance services to be increased.

For education at the secondary level: to offer both a preparation for superior studies and alternative specialization so that students may soon become part of the productive force of the country; the curriculum of the last grade of the baccalaureate to provide for specialization in order to satisfy the demands of higher education; medical, welfare, and remedial services to be established as at the elementary level; more school libraries to be created and measures adopted to reduce the price of textbooks and reference books; the preparation of adolescents to be linked with the interests of the home and community; the teaching personnel to be adequate; all teachers to be permanently hired on a half-time or full-time basis; any adolescent who drops out at the secondary level to have access to the Work Capacitation Centres or similar establishments.

For the higher education level: self-governing and academically liberal institutions of higher studies to
define their relations with the Government, based on the public interest and reciprocal collaboration; the deficiencies and limitations of institutions of higher studies in other cities of the Republic to be overcome; the activities of all these institutions to be defined and harmoniously related, unifying their work and resources, regulating professional preparation according to priorities and balancing their liberal arts curricula with those of a scientific and technological nature; systems for the preparation of professors and their constant professional activity to be created or modernized; study plans and programmes to undergo constant revision in order to incorporate into them the scientific and technological advances; students to be offered "middle ground" alternatives for specialization throughout the course of study.

For teacher education: the preparation of teachers to be related to regional needs; this preparation to be diversified according to the differing functions of the teachers at different levels; professional improvement of the teachers in service to be encouraged.

For out-of-school education: the literacy campaign to be carried out intensively; literate persons to be given the opportunity to consolidate their knowledge at reading centres; accelerated primary instruction to be given to literate adults; educational and cultural activity in Indian communities to be as complete as possible; cultural radio, television and cinema chains to be established throughout the country; efforts made by the nation in pure and applied science to be co-ordinated at the highest level.

Abstract submitted by Dr. Blanca Jimenez Lozano, Instituto Nacional de Pedagogia, Mexico.
The National Technical Council on Education is an advisory body of the Ministry of Education. It is responsible for examining or preparing educational plans, curricula and methods to be standard throughout Mexico in primary and secondary education and teacher training; and for surveying the organization and administration of these various forms of education, the evaluation of results, the teaching skills and qualifications of teachers, time-tables, textbooks, the bases for marking and promoting pupils, and other technical problems of education.

During 1968 the Council developed proposals for educational reform. As a first step, Committees were set up to consider six subjects: (1) Educational policy and its relation to the political and social structures of Mexico. (2) The educational system and its different levels. Factors promoting or hindering its efficiency. Remedies. (3) Relations between school, home and community. (4) Integral educational planning and ways to achieve it. (5) Responsibility and participation of youth in Mexican educational and cultural development. (6) Teaching of civics and adult education.

The Council also began publication of basic documents on educational reform. The present abstract covers the first two booklets in this series.

The first booklet entitled Una profunda reforma educacional, cites the parts of the Constitution dealing with education (Articles 3, 6, 24 and 36), the legal
foundation of Mexican education, stipulating that it shall be universal, democratic, national, compulsory, free, and immune from prejudices and fanaticism. It also quotes from the President's Report to Parliament on 1 September 1968 on the urgency of educational reform and contains the address of the Minister for Education, when inaugurating the courses at the National Polytechnic Institute on 2 January 1968, on the subject: "Impulso de superación" (The urge to excel).

The second booklet, which constituted a working document for the group dealing with the educational system and its different levels and the factors promoting or hindering its efficiency, is divided into nine subsections.

Educational research: Causes of the present state of education in Mexico, factors preventing or hindering its development, proposed remedies.

Physical training, by helping to provide an equilibrium of mind and body, maintains health and strength, leads to habits and reactions which decisively influence social well-being, present and future.

Educational, vocational and occupational guidance, all-round development of the personality: The need to take full advantage of the nation's resources, increasing industrialization, and the implications of diversifying and extending higher education, all enhance the urgency of better training of manpower, regardless of its level or type of work. Hence the need for a healthy educational and vocational policy which, with proper respect for its humanist content, will encourage the all-round development of the personality in students at the various levels.

Out-of-school education: Services will be arranged for individuals, and sectors if necessary, to allow all persons, throughout the Republic, to adapt to their environment and to changing conditions, and ensure understanding between the generations.

Aesthetic education: Activities and courses proposed will lead people to see, understand, enjoy and create art, and relate their response to beauty to their ordinary life, under a national plan to encourage socio-cultural integration and relate Mexican culture naturally to world civilization.

Ethico-social education: To safeguard national
values as social life adapts itself to the changes introduced by scientific and technological development.

Modern communication media and education: Selective use can be made of press, radio and television to bring educational facilities to schools, and particularly to those in rural areas.

Evaluation: Evaluation is vital if education is to be properly adapted, directed and kept up to date.

Administration: Besides comparing what the country spends on education with what it gets back, administration must show how and where education can be made more productive. It must then get down to revising the regulations governing life within the school, study school administration, revise the regulations governing teachers' duties, introduce incentives and rewards for all working in education.

The booklet also considers these nine sub-sections by educational level.

Finally, under the heading: "Vital ideas on educational reform", it contains excerpts from speeches by the Minister and an address by the Director-General of Unesco on 6 August 1968 at the opening meeting of the International Conference on Educational Planning.

Abstract submitted by Professor Juan Josafat Pichardo P., Instituto Nacional de Pedagogía, México.
The humanistic conception of education has been the preoccupation of the study group in comparative education set up by the National Technical Council of Education in 1966. Although the humanistic viewpoint is evident in the legal texts and in the teaching programmes in Mexico, it was considered useful to hold a seminar on the humanistic conception of education, which would permit the study group to gain a comprehensive understanding of the different philosophical currents existing in Mexico at the present time.

In 1967, the study group produced a document entitled "Humanism and Education, a theme for today", in which, after making an analysis of the problem, it emphasised the aim of establishing the indispensable humanistic basis for putting science and technology to man's service and not against him, and stressed that, taking into account the highest ideals of the human being, it is necessary to make an orderly, precise study of current educational plans and curricula, and to be up to date with the progress of science with the idea of serving man in peace, liberty and social justice.

Different specialists then proceeded to study the actual teaching programmes at all the levels of education, with the aim of emphasizing their humanistic content. The document outlines six studies referring to the different levels of education.

The pre-school period. Kindergarten education in Mexico tries to put the small child in contact with...
the world which surrounds him, to carry to him the conviction that the cultural products that he enjoys have been created by man's efforts, and that they belong not only to the few. It tries to avoid a narrow development of skills with a consequent neglect of humanistic activities, and warns against the danger that kindergarten teachers may lose sight of their goal which is the integral education of the child, teaching him to live in a changing society. A changing situation demands an education that does not root the individual in the accidental, but permits him to adapt himself with greater flexibility to change; that gives to the student the maximum of resilience; that permits him to impose himself upon change and not to be overcome by it. Further, it emphasizes that the aim of pre-school education is to seek the integral development of the child in the transition stage between the home and the school. Some practical suggestions are given, among them, a unit of learning aimed at helping the pre-school child to understand the salient features of various countries.

The primary school. The programme of primary education in force since 1959 is analysed and is divided into six areas of experience which are: (i) the protection of health and improvement of physical vigour; (ii) investigation of the environment and use of natural resources; (iii) comprehension and improvement of social life; (iv) creative activities; (v) practical activities; and (vi) acquirement of the elements of culture. These areas are common to the six grades of primary education.

For each area, the programme points out the concrete goals and the corresponding content of education, integrating knowledge with activities. As is natural in a programme by areas, individual subjects disappear and scientific knowledge is integrated as children learn to solve problems. The third area of the programme permits the establishment of bases of comprehension and human collaboration essential in the life of man, through the active participation of the child in home life, in the school and in the community.

The primary school should value highly the formative aspects of the human personality. As a contribution of practical order the document presents a unit of work on humanism in education, to be applied in the 4th and 5th grades.

The lower secondary level. The effort of the secondary school in Mexico to supply a humanistic educ.
cation is analysed, beginning with a consideration of the characteristics and needs of the students at this level, continuing with the study of how best to achieve its aims, and suggesting a revision of the present curriculum. The study group considers that the secondary school has been entrusted with the most transcendental mission in the integral education of the student, whose ideal is a humanistic education that adjusts to the needs and urgent requirements of our time.

The study concludes that the time allotted to the courses and activities of the school should be distributed in the following manner: 50% to subjects of strong humanistic content; 30% to subjects of scientific content, and 20% to technological activities. Nevertheless, this provision cannot by itself resolve the problem, as it requires the teachers to consider humanistic education as one of the most important goals of their work.

Attention is drawn to the importance that has been assigned to technological activities in the Studies Plan (curriculum) of the secondary school and a warning is given that such activities only reach their educative goals when they offer the adolescent motives of reflection, decision and criticism that help him to form his sense of the real, and of action that stimulates talent, initiative and practical intelligence. The technological activities should re-establish the contact between manual and intellectual education — now apparently diverging — thereby helping the student to understand that the product of manual work forms part of the world of culture and that humanism in manual work exists.

The upper secondary level of education. This study begins with the characteristics of the students who enter the "Preparatory" school, generally at sixteen years of age, and follow a three-year course for the baccalaureate which gives entry to the National Autonomous University of Mexico. After taking into account the characteristics of contemporary culture, it affirms that the Mexican baccalaureate seeks a balance between the humanistic and scientific education of the student.

With reference to the "technical preparatory" two-year (vocational) course leading to the National Polytechnical Institute, it is pointed out that in the reform of the study plan effected in 1966 there was the intention of uniting scientific, humanistic and techno-
logical knowledge, but the result was not a balanced one. The main preoccupation was to facilitate the rapid education of technicians and to give an opportunity to students, who for various reasons interrupt their professional studies, to take up a technical career after a short period of training. This produced an apparent imbalance between the scientific and technological knowledge in relation to the humanistic.

The education of primary teachers. The education of the primary school teacher, carried out by the "normal schools" in Mexico, aims at endowing the teacher with a broad cultural preparation which widens his spiritual horizon and fits him to continue his education by his own efforts. In order to attain this goal the study plan comprises a group of courses and activities which cover diverse areas of professional competence. A warning is given against the tendency of normal school teaching towards an over-emphasis on techniques to the detriment of the philosophical and cultural education of the teacher.

The education of secondary teachers. The "higher normal schools" prepare teachers for the lower and upper levels of secondary education, the goal of which is to continue in systematic manner the integral development of the physical, psychological and intellectual aspects of the personality of the student, guided since infancy by the home and primary school. The higher normal school student prepares to be a true humanist teacher, which he will become to the extent that he assimilates such a goal and makes an effort to convert it into something real through his educative action.

Abstract submitted by Professor Juan Josafat Pichardo P. Instituto Nacional de Pedagogía, México.
In 1966, the Council's study group on comparative education set up a commission to consider ways of increasing the emphasis on the humanist side of education, and review the background and the relevant constitutional texts with a view to establishing guiding principles for education in Mexico.

In 1967, the group published "Humanismo y educación, un tema de actualidad" (Humanism and education, a topical theme for today) and in 1968 it produced a statement of educational principles to be submitted to a General Assembly of the Council. The essential purpose was to produce an educational policy to give effect to the principles laid down in the Constitution. Article 3 is accordingly examined, and the document comments on each of the principles deriving from it.

**Love of country:** What is meant by one's country; patriotism means not simply praising one's country and respecting its symbols, but revering its heroes and its finest traditions, knowing its past, and working for its present greatness and for its future.

**Mexican nationality:** Article 3 does not regard national education in any narrow sense but as open to all Mexicans without discrimination.

**Enhancing Mexican culture:** This is regarded as a main purpose of education, to encourage spiritual and cultural growth: for the individual, the full development of his personality; for the community, the full
development of its personality as a nation.

Study of Mexican problems: Education must provide an objective grasp of Mexican problems. The teacher must be honest and sincere with his pupils, never hiding the truth, however painful, about national needs and shortcomings.

Development of resources: National education must concern itself with all national problems and, very particularly, with the proper development of natural resources, showing the young that the more effectively man masters nature, the easier it is to provide living standards that are in every sense more secure and humane.

Free education: Believing that all Mexicans must have access to any form or level of education, the state proclaims that state education shall be free, not only by providing scholarships, loans and other forms of aid, but by endeavoring to ensure universal primary education, by bringing secondary and technological education to every corner of the land, and by providing opportunities for adult education.

Democracy: Mexico is a democratic republic, hence its public education and educational criteria are also democratic. Democracy is considered as a legal structure and a political system whose fundamental characteristic is that sovereignty (the power to promulgate laws and establish that form of government which best suits the interests of the society) resides in and derives from the people, and is exercised through majority decision. Democracy is regarded in Mexico not only as a system of government but as a way of life.

International solidarity: Being democratic, Mexican education fosters an awareness of international solidarity founded on independence and justice.

Better international relations: As a corollary, Mexican education is concerned with preparing students to live more harmoniously with all other men.

Fraternity, and equal rights for all: Education postulates legal and political equality from the conviction that one man is as good as another by the mere fact of being a man — an equality which allows everyone the same chances to develop fully his distinctive individuality.
The common good: The end of education is to serve the needs and interests of those to be educated, and to serve the common good by strongly developing their civic and moral sense.

Protection of the family: The approach to education should aim at strengthening the family, not only as the starting point for all education, but as a purpose for educating the young.

Respect for human dignity: This is embodied in various aspects of Mexican education, which (a) regards man as a member of a community which is there to help him to develop fully as an individual; (b) considers his character and sets out to explore, guide and encourage him in his vocation and aptitudes, in his own best interests and those of society; and (c) encourages the young to be truly free, within the limits imposed by the common good, respect for the law, and respect for the rights of others.

Progress of science: Mexican education postulates scientific progress in all its forms, not merely knowledge for the sake of knowing, but knowledge, in the broadest humanist sense, at the service of mankind.

Full development of the personality: Education must aim at endowing people with the knowledge that best suits their individual vocations and aptitudes.

No race, sect, group, sex or individual privilege: Equality before the law is meaningless if race, sect, group or individual privilege is allowed. Such privileges are excluded by the democratic spirit and letter of our legal and political system and hence have no place in our national education.

Religion: The Constitution establishes the right of every citizen to profess the religion of his choice, subject only to his respecting the same right in others. From the respect for civil and religious rights embodied in the Constitution, the non-denominational school gradually came to predominate, giving no religious instruction, but tolerant of all admissible denominations and respecting freedom of belief.

Against ignorance and its consequences: Ignorance is a person's lack of the scientific knowledge that befits his age and occupation. The answer in the Constitution is free and compulsory primary education.
Against servitude: An education to combat servitude automatically commits itself to liberty; an authentically human liberty is not mere feeling but the true and active exercise of freedom.

Against fanaticism: Fanaticism is the mind's subjection to irrational fears and inhibitions which can be overcome by education. The Constitution consequently forbids fanaticism in the school, which, without being anti-religious, transmits the results of scientific progress which elevate man intellectually and socially.

Against prejudice: Scientifically based, education in Mexico also combats prejudice, one of the worst and most pernicious products of ignorance, the passing of premature judgments on things without having any accurate knowledge of them.

Against a money factor in education: The Constitution embodies the principle of free education as a governmental obligation to all Mexicans.
The fourth Regional Conference of the Unesco National Commissions in the Western Hemisphere approved a proposal by Costa Rica for the conservation of the original beauty of the landscape, monuments and historical sites and works of art. It was agreed to make a thorough study of this theme at the next Regional Conference, and the National Commissions were advised to "carry out a campaign in their respective countries to avoid these abuses ...".

The Conference pointed out that the National Commissions, with their respective governments and international financiers, could make an inventory of the cultural and historical wealth of their own countries. They could also disseminate information on these objectives and contribute to the formation of a responsible public conscience.

On completing its work, the fourth Regional Conference adopted the Resolution of Tlatelolco. This name was taken in homage to the work carried out by the Mexican Government at this site. In this document various proposals are made for techniques and procedures of promoting the interest, investigation, laws, formation, financing, and education necessary for the preservation of the cultural heritage of each country in the region.

President Gustavo Díaz Ordaz, on behalf of the Mexican Government, presented the draft of a Federal Law for the National Cultural Heritage to the National Congress. It was approved on 19 December 1968 by the
In the introduction the draft law gives the historical background contained in the laws that preceded it and that no longer function. It states the need for revision in order to create a more efficient instrument for the protection, conservation, recuperation and enlargement of the wealth of the nation. The document goes on to explain the content of each of its chapters and states general considerations on the importance of preserving the cultural heritage based on technical assistance to the states and municipalities, private enterprise and other organizations that possess or use such material. It also foresees the possibility of exchanging cultural objects with other countries in order to establish or reinforce bonds of international friendship and solidarity.

The document consists of twelve chapters and six transitory articles, concerning the safeguarding and extension of the Law. Chapter I establishes a series of preliminary dispositions. Among them, Article 1 declares the protection, conservation, recuperation and growth of the National Cultural Heritage to be in the public interest. Articles 2 and 3 define and enumerate the objects to be considered of cultural value, including archeological, historical and artistic monuments and furnishings; manuscripts, early printed material, rare editions, important or rare collections of books and documents; scientific and technical collections; ethnological and pre-historic pieces; specimens of flora and fauna; numismatic and philatelic collections; arms; the official archives; folkloric or picturesque sites; natural phenomena; and recordings and films. Article 4 enumerates the departments of the executive branch to which the application of the Law applies, mentioning especially the Ministry of Public Education. Wide action will be taken by these organizations to give technical assistance and to organize permanent education campaigns in order to communicate, preserve and enlarge the cultural wealth. They will also promote investigations, exercise due control and make it easily accessible to the public.

In Chapter II the Law indicates the cases, ways and procedures for the inclusion of property in the National Cultural Heritage.

Chapter III sets the limitations and rules for governing this property. This disposition does not affect the sovereignty of the states and municipalities
or legitimate ownership or their enjoyment by the public. It results only in a greater protection of the cultural values for the benefit of the general public.

Chapter IV refers specifically to the archeological monuments, defining them and establishing laws for their exploration, conservation, restoration and enjoyment.

As in Chapter IV, Chapters V, VI, and VII set laws for historical and artistic monuments and folkloric and picturesque sites and natural wonders. Chapter VIII creates the Commission for Cultural Wealth in order to coordinate all activities dealing with the cultural heritage. It is an office of the Ministry of Public Education, to be made up of representatives from different departments of the executive branch and institutions interested in these matters.

Chapter IX indicates the duties and functions of the National Institute of Anthropology and the National Institute of Fine Arts.

Chapter X is of special importance for the rules it establishes on the reproduction of these cultural objects. The legal repercussions of the chapter are not solely limited to the protection of the cultural heritage of Mexico, but to all objects which, arriving illegally from other countries, might be a cause of speculation.

Chapter XI creates the Registry and Catalogue of the objects included in the National Cultural Heritage. It will also be under the direction of the Ministry of Public Education. Its functions and the procedures to be followed for the registration and cataloguing of these articles are indicated. These functions will not in any way interfere with those of the Public Registry for Federal Property, under the responsibility of the Ministry of National Monuments nor those of other public registries.

The last chapter refers to administrative infractions and the penalties for violation of the Law. It gives examples of different crimes which can be penalized in order to preserve the objects included in the National Cultural Heritage on legal and clearly defined bases.

Abstract submitted by Professor Esperanza Ramirez Granados, Instituto Nacional de Pedagogia, México.
School failures pose a serious problem to the educational system in Mexico because of the resultant loss of resources and effort. Although the phenomenon is very complex, some determining factors are known, such as the socio-economic level, home environment, psychological development, emotional upsets and educational methods. In the primary school, especially in the first grade, failure has a definite influence on the future of the child. If he does not overcome the obstacles, his personality will become distorted because of frustrations and negative attitudes.

The National Pedagogic Institute has concentrated on studying all aspects of this situation. A major part of its activity has been dedicated to the search for technical-pedagogical solutions, in order to lower the rate of failure especially in the first grade. It is believed that a proper pedagogic orientation for teachers and the application of new techniques and resources will contribute to solving the problem.

The first part of the document summarized here deals with a series of experiments carried out with first grade remedial groups, organized in various schools in the Federal District, according to the following procedure: (a) the Detroit-Engel intelligence test was applied to classify first-grade pupils at each school; (b) according to this classification, groups were formed at three learning-capacity levels, namely, high, medium and low; (c) the school year was begun with the classified groups; (d) after four months of
scholastic activity, those pupils who showed little or no progress were selected for the remedial group.

When this group was organized, it was the object of specific psychological studies by means of the Bender test to determine the degree of visual-motor coordination and the A B C of Lourenço Filho, to evaluate the maturity level for learning reading-writing. When the results of these tests were known, a special psychopedagogic treatment, under the direction of the National Pedagogic Institute, was applied to the remedial group; a series of preparatory exercises was suggested to the teachers in order to stimulate the maturation process of children who then would be able to overcome their psychological and conceptual limitations; an eclectic method was applied for teaching reading-writing, according to the "Reading-writing teaching guide" elaborated by the Institute; orientation was given for use of the official text and work-books, and material prepared according to the programmed teaching technique was used. These were employed as exercises for learning reinforcement and consolidation.

The experience of a teacher who led one of the remedial groups serves to enrich the document. In her report she emphasizes the necessity of establishing affective and emotional ties with the children in order to reach an understanding of objectives and a true interaction between pupil and teacher. Equally important is the effect of methods that keep the children interested, active and disposed to cooperate for the betterment of both the individual and the group. Material is also included for programmed teaching and instructions for carrying it out. This material consists of two booklets: one with lessons for consolidating reading and the other with exercises for sound-identification and hand-writing. It also contains sheets with printed words, to be cut out by the children and formed into phrases and sentences.

The techniques for programmed teaching were followed in making up this material. Programmed teaching does not necessarily require machines or other mechanical learning apparatus. It consists fundamentally of proper planning of the material, according to the following principles:

Learning-unit size. A theme or subject is given in small portions, which permits easy and rapid assimilation of each part.
Stimulus presentation. A small portion of learning is presented: a question to answer, a sentence to complete, drawings to identify.

Answer. The pupil should answer according to the indications given. After each item is learned the pupil's success is indicated which permits learning on solid and proven grounds. The immediate confirmation of the pupil's answer is a reinforcement of knowledge and at the same time a strong incentive to continue to learn.

In general terms, the question of stimulus should be presented in such a way as to produce a correct answer. A programmed theme or subject should obtain correct answers 90% of the time and incorrect 10%, taking into account the difficulties inherent in all learning. This process, stimulus-answer-reinforcement, is repeated until the pupil has acquired the amount of knowledge to be learned at each session.

The material for the programmed teaching of reading-writing was planned for short sessions that would maintain the interest of the child. The amount of learning presented at each session consists of a complete unit that implies a continuity with preceding or succeeding work sessions, in logical and ordered sequence. It was also considered that, for effective learning-reinforcement, the programmed material should at first present very simple tasks, in order to diminish the chance for errors. Complexity would increase in proportion to the knowledge acquired and capacity and habits of the child. In this graduation of teaching material the necessity of conducting the learning process slowly was also considered, above all in the initial stages, in order to correct mistakes at the opportune moment, control difficulties and firmly consolidate the learning already established. In this way, the child gradually moves from easy to difficult, from the concrete to the abstract, and from the simple to the complex.

The results achieved with these remedial groups was very satisfactory. The pupils, mainly 'repeaters' and 'slow learners', were able to overcome their deficiencies and be promoted to the first grade and then to the second grade in the normal manner.

Abstract submitted by Professor Esperanza Ramírez Granados, Instituto Nacional de Pedagogía, México.
In 1960 the National Free Books Commission of the Ministry of Public Education published a first-grade book and a first-grade workbook which were the result of a contest held by the Commission in order to provide free textbooks for the school population of Mexico and to unify teaching methods. These texts however do not explain the exact teaching methods to be followed. For this reason, the National Pedagogic Institute has prepared a guide to the teaching of reading and writing.

A study was made of the methods known and practised by Mexican teachers in order to select the one that offered the greatest probability for success. The suitability of the free textbook for first-grade children led investigators to choose the eclectic method for teaching reading-writing. Then the first-grade teachers at the experimental school, a department of the Institute, made up the first series of suggestions for teaching reading-writing, which were tried out for one year at the school. Later, mimeographed copies were sent out to all teachers in the Federal District and to some states in the Republic. The experiment provided valuable ideas for activities and exercises.

The general principles set out in the Guide will, to a certain extent, unify first-grade teaching methods. They will promote more adequate techniques, resources, and procedures for the well-rounded development of the children and for overcoming difficulties in learning.
In the introduction to the Guide, the importance of this type of publication for teachers is emphasized. While improving their technical skill, it does not place any limitations on the creative element in education.

A brief presentation gives a description of the parts into which the Guide is divided. A chapter on the eclectic position establishes the fundamental characteristics of the method chosen for teaching reading-writing. It may be summarized as follows: (a) preparatory exercises, to enable the child to reach complete maturity in the psychobiological aspects, are indispensable for elementary learning; (b) the teaching of vowels is basic for sentence and word analysis and for learning consonants; (c) the teaching of consonants is carried out through word and sentence analysis, and by forming new consonants with the elements (sounds) already learned.

The development of the first stage includes preparatory exercises and teaching vowels. There are 21 series of preparatory exercises that should be carried out not only at the beginning of the year but throughout the entire school term. The exercises suggested (space organization, visual-motor co-ordination, memory-attention and language) will enable all children to reach the maturity level necessary for learning reading-writing, above all those children, the majority in our own environment, that have not had the opportunity to attend a nursery school.

Teaching vowels also forms part of this first stage. The procedures suggested for learning are based on the idea that vowels in Spanish are pure sounds that may be taught separately following the process of synthesis recommended by the phonetic method, using visualization, pronunciation, identification exercises, and any other resources that stimulate the child to activity. Writing exercises for muscle relaxation and necessary movement control for tracing letters follow. Use of "My first-grade workbook" is suggested once vowels have been introduced.

The chapter entitled the development of the second stage contains a detailed description of the procedure to be followed for teaching a consonant; an example illustrating this process; a series of complementary material highly useful to the teacher; and suggestions for teaching composite syllables. For teaching both consonants and composite syllables, the analysis-
synthesis procedure is recommended, presenting a sentence or phrase significant to the child and not an isolated consonant letter, as in the phonetic method.

With the sentence or phrase that expresses a thought referring to real and interesting situations, the process of analysis and synthesis is begun. Its mobility permits deeper and more concrete learning. This process includes varied activities, such as visualization and analysis of sentences and words, down to the syllable. Different resources are used: toys, printed or mimeographed stamps, drawings, strips with the words being studied, etc. Similar procedures are followed for the synthesis in which the inventiveness of the child is most important. The pupil seeks to form the most varied expressions with the elements (letters) already learned, under the teacher's direction.

The process described above is illustrated with the example of teaching the letter "s". There follows a series of suggestions for stimulating and beginning the learning of certain letters and suggestions for words, phrases, sentences and lessons that can be formed with letters already learned. These provide the teachers with sources for immediate use in teaching that, at the same time, awaken their initiative and creative possibilities. The organization of this material was based on the grading and the order in which the letters are presented in the free textbooks.

The procedure for teaching composite syllables is in general the same, although it is carried out at a more accelerated pace.

The chapter on the development of the third stage contains suggestions for consolidating reading through exercises that should be practised as soon as a child reads the first word. The lessons for this purpose will be those from the textbook, besides those presented in the Guide, which have been set up with the idea of establishing natural correlations with other aspects of the programme. Use of literary material is also suggested. This not only improves reading ability, but also promotes the development of aesthetic sensitivity in the child. An example of the use of literary material in teaching forms part of this chapter. It ends with a selection of poems for orienting the teacher in the field of children's literature.

Abstract submitted by Professor Esperanza Ramirez Granados, Instituto Nacional de Pedagogia, México.
Educational research. The educational system at different levels; factors promoting or hindering its efficiency; possible improvements.

Keywords:
- Mexico
- educational reform
- research needs
- research utilization
- history
- objectives
- problems
- research organization

Under the direction of the National Technical Council on Education, studies were started in September 1968 in preparation for a thorough reform of education in Mexico.

Six study sections were set up, each taking a specific topic.

The educational research sub-committee prepared the document summarized below, which was discussed and approved by the main group.

Chapter I (The importance of educational research) discusses educational research, and demonstrates the importance of its role both in scientific and technical development, and in that most delicate of human enterprises, education. Educational science should be based, in all its aspects, on research (experiment, system, objectivity, verification, control, and so on), so that educational development will have solid foundations. But educational research, like scientific, needs coordination, with experts in the different branches working as integrated teams.

Chapter II (A survey of educational research in Mexico) lists the agencies in Mexico doing part-time or full-time research, and indicates what is being done in the following fields - educational planning, teaching methods, psychology, social psychology, guidance, sociology, medicine, anthropology, architecture, comparative history and education theory, documentation, products.
Chapter III (Educational research and the reform) reports that systematic educational research in Mexico started in 1924, mainly in official institutions, while private research has been initiated more recently. Research must precede reform to provide the basis for it, and then continue as a process of support and control as the reform proceeds. Research must itself in turn be constantly brought up to date, so as to keep up with the problems concerned and take advantage of any possibilities offered of increasing its own efficiency.

Chapter IV (Factors favouring educational research). There is an increasing awareness of the importance of educational research. It is slowly affecting the various sectors of the national life. It is increasingly used in tackling problems, it is becoming increasingly interdisciplinary, and is increasingly stimulating to those actually doing research.

Chapter V (Inhibiting factors). Many inhibiting factors are mentioned: inferiority in status to other research and other educational activities; findings ignored or very imperfectly utilized; lack of clear aims, proper planning and co-ordination and hence, duplication, waste, poor results; no proper evaluation of applications, hence results remain doubtful, and the effort and investment are to a large extent lost; no training by any institute of higher education; uncertain administrative status, with research being done by people in a variety of posts and categories; inadequate allocation of resources; inadequate circulation of literature on the subject, educators unaware of what is being done.

Chapter VI (Remedies). It suggests the following.

Planning and co-ordination: To be effective, educational research must be planned in conjunction with integral educational planning, and cover all the sectors concerned; there should be regular meetings where all the agencies concerned collaborate in rationally and coherently fixing objectives; a national educational research institute should plan and co-ordinate the research.

Research: Theoretical research should provide the basis for practical research and for educational practice; findings should be fully used and their applications evaluated.
Research staff: Interdisciplinary teams should be formed, trained in institutes of higher education; they should have an official status and be awarded fellowships to allow further training.

Finances: The research agencies should be subsidized, and an approach made to international organizations concerned with education to finance research which can be used to promote major educational improvements.

Publicized findings: Adequate resources should be set aside to publicize findings, mass media being used to ensure that they will come to the notice of most educators.

Abstract submitted by Blanca Jiménez Lozano, Instituto Nacional de Pedagogía, México.
The Minister of Education for Mexico dealt with the administration and quality of education, the role of the directors and the duties towards them of the inspectors, and the main features of the reform of national education now being undertaken by the Ministry. The subject and occasion gave the speech national significance as a policy statement to guide the officials responsible for directing and supervising education throughout the country. The various points are summarised in this abstract.

Reference was made to the need for greater flexibility in administration in the interests of a more efficient system and to the urgency of reform which had been emphasized by the President of the Republic on 1 September 1968, in his fourth governmental report. The reform was not merely academic, not another of those changes of syllabus and curricula which, when made too often, confuse; its purpose was to get down to fundamentals and affect all the school and out-of-school forces in a world so richly endowed with communication media which could dominate and distort or, if properly used, support the educational work of the schools.

A working group had been set up under the aegis of the National Technical Council for Education to examine those aspects of the reform, that directly concerned the Ministry and any others that it should consider within

1. The school calendar is being revised, and it is expected that in the 1969/70 school year a unified calendar will apply to the whole country.
the framework of comprehensive educational planning.

A study of the latter over the preceding two years had drawn upon the best brains and sources of information in the country. It was not exactly a reform draft, but covered the main features of the proposed reform, and provided data on the existing situation, and a forecast of demands in education up to 1980.

The idea underlying the reform could be put into one phrase: it really meant a thoroughgoing social reform which the whole world needed today and which in Mexico must take account of Mexican conditions.

As regards the actual schooling, there was first the quantitative problem. Here the government had strained its resources to the limit, for example in the building and equipping of schools. Directors and inspectors were advised to reflect on the waste of resources the government had provided for education.

Quality should be the first concern of Mexican teachers and of those responsible for directing public education at the various levels. How much more valuable was a teacher who developed character and a spirit of service in his pupils—the really vital purpose of education—than one who was only interested in teaching his programme.

Curricula should be examined for the true educational potentiality, distinguishing between the really fundamental and the accessory or merely fact-providing. Mexican education should be intensive rather than extensive. Recommendations on these lines had been given to the National Technical Council and the National Commission on Free Textbooks, inviting them to concentrate, in both curricula and textbooks, on the essential points that teachers should emphasize, as distinct from purely factual information. That would prevent muddle, and pupils, particularly in their early years at school, would not confuse what it is vital to learn with the merely complementary. It was absolutely essential to keep in mind the sharp distinction between basic and accessory knowledge if the inevitable forgetfulness well known to psychologists was to be avoided—a phenomenon which could be attributed simply to short-comings in teaching.

Reference was made to the role of school inspectors in ensuring the quality of education. When visiting the various states of the Republic, the Minister always tried to arrange a meeting with the school inspectors,
and impressed on them that they were the nerve centre of education, in the twofold sense that they could both provoke and transmit feelings and ideas. It had been suggested to the heads of departments in the Ministry that their immediate collaborators should operate like a military general staff so as to ensure detailed attention to their charges and responsibilities.

The general staffs of the federal directors of education should, in addition to the technicians, consist of the inspectors. One of the most important duties of an inspector was helping teachers by discussing with them the technical aspects of their work and their teaching. This was even more necessary for those teachers who, for one reason or another, did not come up to standard. The inspector was not there to bully or to force; he should be less concerned with discipline than with helping the teachers who come under his jurisdiction.

One of the basic duties of the federal directors of education was to be constantly available and on friendly working terms with their inspectors. They were, after all, colleagues and auxiliaries, occupied with something more important than mere administrative inspection that looked mainly to quantity and ignored or neglected the qualitative side.

In conclusion, federal directors and inspectors were urged to face up to the noble, responsible and, at times, crushing, task of education, which nowadays demanded not only a new approach but a new sensitivity, new ways of perceiving and of judgement; something they should ponder and transmit to inspectors and teachers, in the higher interests of education itself.

Abstract submitted by Professor Juan Josafat Pichardo P., Instituto Nacional de Pedagogía, México.
Prokof'ev, M.A.  
Narodnoe ozhovanie v SSSR 1917-1967  

Public education in the USSR 1917-1967.  

The main theme of this work is the present state of education in the Soviet Union; historical material is included solely for purposes of comparison.

The introductory chapter traces the progress of Soviet education from 1917 to the present. Comparative statistics are quoted to illustrate the outcome of the cultural revolution of the last 50 years in the Soviet Union. In pre-revolutionary Russia almost three-quarters of the population was illiterate, whereas, according to the 1959 census, 97.8 per cent of those in the 9-49 age group were literate. Today, the USSR is a totally literate country. In pre-revolutionary Russia four-fifths of all children had no possibility of learning. Today, compulsory eight-year general education has been established everywhere in the Soviet Union, and complete secondary general education for young people will have been largely introduced by 1970. A comprehensive system of evening schools for young workers and young peasants has been set up, providing them with secondary general education without taking them away from their work. In the 1966/67 academic year, 4.6 million persons - six times as many as in 1940/41 - were studying at such schools. In the Soviet Union as a whole there were 176 students at higher educational institutions per 10,000 of population in 1966/67 as against 8 in 1914, and 170 pupils per 10,000 at secondary specialized scholastic establishments against 3 in pre-revolutionary Russia (Table 1).

The Section on pre-school training, illustrates the development of the system of pre-school institutions.
and the working out of the theoretical and practical bases of the social training of children of pre-school age. The system of pre-school training was created virtually from nothing, as there were only a few kindergartens in pre-revolutionary Russia. In the "Declaration on Pre-School Training", promulgated on 20 November 1919, and in other orders of the immediate post-revolutionary period, it was emphasized that the system of pre-school training must be organically linked with the general system of public education; it must also answer as fully as possible to the interests of the family and the problems of the all-round development of children of pre-school age and their successful preparation for school proper. The various types of pre-school institutions are described: nurseries, nursery-gardens, day and day-and-night kindergartens, open-air kindergartens, pre-school children's homes. Table 2 shows the increase in school institutions. The various types of institution for training teachers in the pre-school teacher's college, which provides secondary specialized education. The highly-qualified managers, methodologists and educationists are trained at the pre-school faculties of higher institutions of pedagogics.

Integrated curricula for the training of children from early childhood until they start school, drawn up at different stages in the development of pre-school pedagogics, are described, together with the main lines of research at present being explored.

In the chapter on the secondary general polytechnical schools, the main principles and different periods of development of the Soviet school are elucidated. Statistics are quoted on the introduction of compulsory general education, which was carried out in stages: primary in 1932; incomplete (seven-year) secondary in 1952; and eight-year in 1962 -- the transition to complete secondary general education which, in principle, is to be finished about 1970.

In recent years work has been going on with the aim of overcoming the lack of correspondence between educational plans and curricula and the present level of development of science, and of eliminating any undue burden of studies on pupils and students. New types of timetable for secondary general schools are cited, and data on the new content of various subjects and on the experimental research being carried out with a view to shortening the span of primary education from four to three years.
### Table 1: Number of students enrolled in various types of school (in 1000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>General schools</th>
<th>Full types</th>
<th>Vocational and technical colleges and schools</th>
<th>Secondary specialized schools</th>
<th>Institutions of higher education</th>
<th>Refresher courses or other types of education</th>
<th>Total 1965</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914/15</td>
<td>453.3</td>
<td>17.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>470.5</td>
</tr>
<tr>
<td>1940/41</td>
<td>6207.3</td>
<td>171.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6374.3</td>
</tr>
<tr>
<td>1945/46</td>
<td>107.5</td>
<td>24.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>131.5</td>
</tr>
<tr>
<td>1966/67</td>
<td>2.1</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.1</td>
</tr>
</tbody>
</table>

### Table 2: Increase in pre-school education (in 1000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Directors and Kindergarten and nursery schools</th>
<th>Teaching staff</th>
<th>Children</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1927</td>
<td>73.5</td>
<td>1048.9</td>
<td>74.9</td>
<td>1059.3</td>
</tr>
<tr>
<td>1940</td>
<td>1311</td>
<td>1171.0</td>
<td>75.2</td>
<td>1056.3</td>
</tr>
<tr>
<td>1965</td>
<td>67.5</td>
<td>6207.3</td>
<td>71.4</td>
<td>6594.6</td>
</tr>
</tbody>
</table>

In addition, the number of children in permanent nurseries at the end of 1965 was 1,465,500.
The transition to the new plans and curricula begun in 1966/67 is being systematically pursued, and it is planned to complete the operation not later than 1970/71.

A significant part is being played in this improvement by the provision for optional lessons at the pupil's choice, as well as by the establishment of a small number of secondary schools and classes for the thorough theoretical and practical study in the upper grades of mathematics and computer techniques, physics and radio electronics, chemistry and chemical technology, biology and agrobiology, and the humanities. In model timetables the following periods per week are allotted to optional lessons: 2 hours in the seventh grade, 4 hours in the eighth, and 6 hours in the ninth and tenth grades.

In the next chapter the basic principles of the educative work of Soviet schools and the concomitant activities of teaching staff and of the young communist (komsomol), young Pioneer and other social and out-of-school organizations, are set out. Particular subsections deal with the fostering of socialist patriotism and internationalism; pupils' labour education and socially useful work; aesthetic education; physical training; the system of state and social out-of-school institutions; and the organization of pupils' leisure with a view to ensuring their all-round development. (There were 12,000 such institutions in the USSR in 1966.)

The chapter on the teacher describes measures for building up the huge army of Soviet teachers, members of the new intelligentsia who have emerged mainly from the ranks of workers and peasants. Compared with 260,000 teachers in 1914/15 there were 2,300,000 in 1966/67.

In 1966/67 there were 381 teachers' training schools and 206 pedagogical institutions of higher education in the USSR, attended by more than one million students. The centres for improving teachers' qualifications and for disseminating advanced pedagogical experience are the advanced teachers' institutes to be found in all the Union Republics and in all regions and territories. Every year, in the RSFSR alone, more than 200,000 teachers take refresher courses of from one to two months' duration to improve their qualifications; and almost all teachers attend short-term seminars on specific subjects. The content of pedagogical education and teachers' refresher courses is described, as are also the working
In the chapter on pedagogical science the basic principles and paths of progress of Soviet pedagogy are set out, together with their connection and continuity with the pedagogical thought of the past and their new qualitative features, bound up with the revolutionary socialist reforms and the new tasks and aims of education based on Marxist-Leninist dialectical materialism. The main trends of the scientific research carried out by the Academy of Pedagogical Sciences of the RSFSR (founded in 1943 and transformed into the Academy of Pedagogical Sciences of the USSR in 1966) are illustrated. The present state and future prospects of pedagogical research are described.

In the chapter on vocational and technical education there are sections on the training of factory workers in the first years of Soviet rule; on the establishment of the system of state labour reserves at the end of the 1930s and the beginning of the 1940s, necessitated by the vast scale of the country's industrialization; on the state of vocational and technical education after the Second World War; on the progress of such education in the Union Republics; on the cultural activities of vocational-technical educational institutions; on the vocational-teaching of workers at factories; and on the future prospects of vocational and technical education.

Between 1950 and 1966 the number of vocational-technical schools providing courses of study from 6 months to 2 years in length increased from 3,019 to 4,067; and the number of students from 665,700 to 1,436,000.

The chapter on higher and secondary specialized education deals with the measures taken by the Soviet authorities to ensure the worker's right to higher and secondary specialized education; the progress made in this branch of education; the educational content and organization of study in higher schools; extra-mural and evening higher education; training in institutions of higher education; the international connexions of Soviet higher schools; and secondary specialized education.

The last chapter, comprising the greater part of the book, deals with the progress and present state of public education in each of the Union Republics.

Abstract submitted by N.N. Serebryanov, K.D. Ushinskij
Scientific Library of Public Education.
The first scientific session of the Academy of Pedagogical Sciences of the USSR met in Moscow from 6 to 8 February 1968. The session heard and discussed papers by the Minister of Public Education of the USSR, M.A. Prokof'ev, on "Some problems of the current development of schools"; by the President of the Academy, V.M. Novostrov, on "the main trends of scientific research in the pedagogical sciences"; and by the Secretary of the Central Committee of the Komsomol, T.A. Krasenko, on "Some questions of the development of the children's communist movement in the USSR". At meetings of the various sections of the Academy more than fifty papers on various pedagogical problems were read.

In the section on the theory and history of pedagogy great interest was aroused by the paper presented by P.F. Korchagin, and A.I. Piskunov that gave a short account of the path trodden by Soviet pedagogical science over fifty years and described the most urgent problems which it is at present in process of solving. This paper was supplemented by a series of related papers dealing with questions of the progress of public education and pedagogic thought in the Union Republics.

Meetings of the section on pedagogy and teaching methods heard papers on the progress achieved in the Soviet Union in these fields over the past fifty years and discussed urgent problems of teaching in secondary general schools.

Papers read by A.I. Markuševič and A.M. Arsen'ev
dealt with the problems of improving the content of school education in the light of contemporary progress in science, technology and culture. The speakers explained the demands made by scientific, technological and social progress on the content of school education and how they are being met in proposed new syllabuses and curricula.

The committee on the content of education had to tackle the task of selecting from among the multiplicity of facts, ideas, laws and theories which go to make up modern science and culture those which should be the property of every man, no matter what social functions he is called upon to perform. Although the content of secondary general education throughout the Soviet Union is uniform in its general trend, and in its scientific and cultural standards and significance, it must at the same time meet in full the national requirements of the peoples of the Union in respect of the language, literature and general features of their native lands and their way of life.

M.N. Skatkin traced the course of Soviet pedagogy over the past fifty years and brought out current problems of improving the teaching process (the search for positive teaching methods, ways of ensuring the integrity of teaching and the retention of the knowledge acquired and the inculcation of the ability to apply it in solving practical problems). He gave great attention to the problem of increasing the effectiveness of teaching through all-round development of the cognitive activity and self-reliance of pupils in the course of learning.

Questions of polytechnical education at the current stage of progress of the Soviet school provided the theme for a paper read by D.A. Epstejn. On the basis of the Marxist-Leninist understanding of the essence of polytechnical education, the connexion between the change in the nature of work in modern production and the content of labour and polytechnical education in the school was brought out. The speaker emphasized that the main tendency in the changes occurring in the content of labour could be described as an increase in the proportion of intellectual activity in man's work. The paper showed ways of implementing the principle of polytechnicism in the study of those of differentiating labour education in the senior forms of schools.

At meetings of the section on psychology and the physiology of the growing child, papers were discussed
in which the achievements of Soviet psychology and physiology in this field during the past half-century were described, and problems calling for intensive investigation in the near future were charted. A.A. Smirnov drew a general picture of the Soviet psychologists' drive to build up a scientific, dialectical-materialistic conception of man's consciousness.

A.A. Markosjan quoted conclusive evidence of the great achievements of Soviet physiology of the growing child, both in elaborating the general notion of ontogenesis and in studying the development of the child's vegetative, motor and neuro-regulatory system. The speaker confined himself to problems of the theory of the child's individual development, of the neuro-physiology of the growing child, and of the development of movement. The central problem of the ontogenesis of the human personality and its psychological features is that of the mutual relationship between education, training, and development. Theoretical and experimental research carried out by Soviet psychologists and educationists has made a substantial contribution to its scientific treatment; it has also revealed which aspects of this highly complex, many-sided problem still await special investigation.

Certain aspects of the problem of education, training and development were also dealt with in a paper presented by G.S. Kostjuk, who emphasized that even though education plays the decisive part in development the latter is not a simple matter of upbringing, and that if education is to be effective it must conform to the laws governing the development of personality and to the stage such development has reached. Accordingly, the old question of criteria for distinguishing the successive stages of children's mental growth, of the formation of their purposive characteristics, and of the way in which they change under the influence of education and upbringing are still urgent. The differential aspect of the development of personality needs great attention. Education and training are the more successful in bringing out individuality if the methods by which they are practised take account of each individual's specific educability and trainability. In this connexion, the problem of devising completely valid methods of studying the individual features of a child's mental development, and of diagnosing them psychologically for practical purposes, is extremely urgent.

Urgent problems of the psychology of the education
and upbringing of the school-age child were considered in a paper by A.V. Zaporoæê favorably of psychologists. A V. Zaporoæê, who reported that in pedagogics, psychology and the physiology of the growing child a constantly growing body of information is being built up, showing the decisive part played by pre-school training in the process of the shaping of the human personality. The infant's nature displays an extraordinary plasticity, and considerable adaptability to pedagogical influences of a certain kind. The processes of psychological development in early ontogenesis are extremely complex, they take place on several levels, and they depend on many factors. If their pedagogical management is to prove successful, and if the curricula and methods of pre-school training are to be perfected, profound study of the general trends of development of the pre-school child is indispensable (cases of acceleration and retardation at a given age etc., the laws governing and the urges behind this development, the child's growth characteristics at different stages of early childhood). Research carried out by a number of Soviet psychologists has revealed substantially greater psycho-physiological potentialities in pre-school children than were previously known to exist. This has made it possible to develop a new, dynamic theory of the growth stages of mental development, and has clarified the dependence of their characteristics on the child's living conditions and upbringing.

The concept of the process of perception as a series of discrete perceptive acts, developed by Soviet psychologists, had provided the indispensable psychological basis for the introduction of new systems of sensory instruction in the kindergarten. A paper by L.I. Bozoviê on research into the psychology of upbringing showed that investigations in this field tend not only towards the working out of the psychological bases of training, but also towards the study of the psychological laws governing the shaping of the child's personality.
This book forms part of a series of monographs compiled by the Principles of Pedagogy Section of the Institute of the Theory and History of Pedagogy of the Academy of Pedagogical Sciences of the USSR. It is mainly intended for lecturers at higher schools, scientific workers and post-graduate students. It gives a comprehensive picture of the history, main categories, subjects and methods, sources and trends in the development of educational theory. The authors start from the consideration that, at the present stage of its development, this theory fails to solve the problems of the organisation of the life of society. Its theme is upbringing, education, and training organized in the family and in scholastic and cultural-educational institutions. However, the essential prerequisite for valid, scientifically-based conclusions is the study of social life in its entirety. To this end, it is asserted, pedagogy cannot be confined to the framework of the school.

Chapter I, the origins and development of educational theory (V.E. Gumurman and F.F. Korelev), traces the evolution of education as a scientific discipline. The philosophic bases of educational systems are expounded, and the succession of educational ideas (in particular the struggle between materialism and idealism is brought out. The thought of educationists and philosophers of the past (for instance, Francis Bacon) is also adduced. In one section, the most significant achievements of Soviet pedagogy are recorded and various problems requiring immediate treatment are defined.
In chapter II (V.E. Gmurman and F.F. Korolev) the following concepts of educational science are analysed: upbringing, education, training, the educational process, self-education, re-education, aims, means, methods, etc.

Those works in which upbringing and education are identified are criticized. The differences and points of similarity between the two processes are examined. It is emphasized that the aim is to get rid of one-sided ideas and to arrive at a deeper understanding of the complex inter-connections between the pupils' behaviour and their consciousness, between their acquisition of ready-made forms of social experience and the formation of their own opinions, between external influences and the development of their natural instincts. One of the special features of upbringing is that it always proceeds through the medium of some other activity (care, feeding, games, learning, work, etc.); yet any one of these forms of activity (learning included) can in certain circumstances remain without effect upon upbringing. Precisely for this reason, the thorough working out of the aims of upbringing is of greater significance than is often thought to be the case. The methods and types of training used serve to implement these aims. At the same time, a method reflects the internal pattern of the development of the particular activity to which it is applied, and it brings out the latter's inherent characteristics. And each type of training, viewed in isolation, is of a more or less external nature in relation to the process viewed as a whole.

In chapter III, development and upbringing, G.S. Kostjuk discusses the relationship between the two processes, mainly on the basis of psychological and psycho-physiological material. The author emphasizes that the outcome of the influence of the outside environment depends not on the latter alone, but also on the characteristics of the organism, including inherited or congenital characteristics; and he insists upon indispensability of studying these characteristics with the aim of successfully guiding the development of every individual.

In chapter IV, pedagogics and other sciences, R.G. Gurova discusses the links between education and philosophy, and criticizes alike attempts to regard education as a branch of philosophy and proposals that it should be dissociated therefrom. At the same time, it is emphasized that formal repudiation of philosophy is in the final analysis itself a particular form of
(idealistic) philosophy. Attempts to deduce the tenets of pedagogy directly from Marxist philosophy are also known, but so crude an approach contradicts the requirement of Marxism, that the qualitative characteristics of pedagogy be taken fully into account.

Chapter IV also gives illustrations of true and false notions of the interrelationship of education and psychology, or, conversely, to derive educational theory speculatively from psychology. The connexion between the two sciences must be reciprocal. Deprived of its psychological basis, education would indeed be primitive, "childless" so to speak, and psychology, and especially child psychology, would be abstract and insipid if it failed to take into account the broad problems of the theory of upbringing and education.

Chapter V, problems of the methodology of educational research (contributed by M.A. Danilov), gives a general description of research in education and an analysis of diverse sources and methods.

Chapter VI, on the use of mathematical methods in educational research (by L.B. Itel'son), deals not so much with the results of research as with future projects that may be envisaged. The problems and conditions of the application of mathematical methods are described, and questions bound up with the measurement of educational phenomena, with the use of statistical methods (in observation and experimentation) and with the construction of mathematical models are discussed.

The purpose of chapter VII, modern philosophical idealism and bourgeois educational thought (by B.L. Vul'fson and Z.A. Mal'kova), is to show the influence on bourgeois pedagogy of some modern currents of idealistic philosophy. The degree to which these various ideological ideas affect the school is far from equal. Pragmatism gave rise to a relatively sound educational doctrine, and though its authority has been badly shaken, it is still far from being a spent force. Neo-Thomism has formulated separate principles for education and for upbringing, by which hundreds of thousands of denominational schools are administered in capitalist countries. As to existentialism, its educational doctrine is predominantly speculative, so that it seldom finds direct application in school practice.

At the end of the chapter a variety of information is given testifying to the noticeable diffusion of
Marxist educational ideas in capitalist countries. Several distinguished educators in the West have renounced the more reactionary dogmas of official educational philosophy in their countries. Progressive society and national communist parties are carrying on the battle for the democratization of the school on scientific principles.

Abstract submitted by V.E. Gmurman, Institute of the Theory and History of Pedagogy of the Academy of Pedagogical Sciences of the USSR.
Kabanova-Meller, E.N.

Formirovanie priemov umstvennoi deyatelnosti i umstvennoe razvitie uchebnykh


USSR
psychological research
transfer of training
educational psychology
mental development
concept formation
thought processes
maturation
learning
learning processes

In the first part of the book the author sums up her research on the problem of the training and transfer of different types of mental activity. The second part of the book deals with one of the most important problems of mental development, that of the evidences and conditions of development.

The author draws a number of educational conclusions from her investigations, relating to the application of such principles as "teaching the pupil to learn intelligently", "development education", in methods, curricula and textbooks, and sets the methodologists a number of problems.

The various types of mental activity (generalization, abstraction, imagination, etc.), i.e., the ways in which the pupil performs that activity, consist in specific actions and can be objectively expressed by listing a series of such actions. For example, generalization involves the following actions: an attribute common to each of the objects studied is isolated; it is given a name; and the objects are classified by reference to the common attribute. Such a list of actions reflects only the general trend of the pupil's activity; it does not define it in detail.

In a review of the literature on transfer of training the author distinguishes four main topics:
(a) Methods of transfer, showing how the subject transfers a type of mental activity from the first situation (the training task) to the new situation. Methods of
transfer are characterized by two orders of phenomena: how the pupil makes use of a type of activity already learned (whether he reorganizes it or not, whether he selects the required type from among others, and so on); and how he uses the study material in the process of transfer (whether he takes it in the form in which it is presented to him, or rearranges it, whether he combines the material of the first task and that of the second).

(b) Conditions facilitating transfer and relating to the features of the second task as compared with those of the first (their similarity or difference and so on).

(c) Conditions facilitating transfer and relating to the method by which the subject is being taught.

(d) Those features of the pupil's personality that influence acquisition and transfer.

The author goes on to illustrate the training and transfer, under experimental conditions, of a number of types of mental activity, e.g. abstraction by contrast (which differs from the two familiar psychological concepts of abstraction by isolation and abstraction by emphasis); two-stage generalization, based on abstraction by contrast; and some methods of forming concepts (with the help of pictures, topographical maps, plans and the composition and interpretation of drawings).

The experimental investigations described throw light on the main evidences and conditions of the development of schoolchildren. The author rejects certain premises generally accepted in Soviet psychology (about the leading part played by education in the interaction between it and maturation and about the influence of the acquisition of knowledge and skills on development, and so on).

The most important condition of mental development is the building up in the pupil of a system of generalized types of mental activity. In the experimental group (seventh grade) the training in mental activities comprised three stages. In the first, separate types of activity were trained (generalization, abstraction, the examination of objects from different angles and various methods of forming concepts). Thus, for example, in generalization pupils were asked to group together those objects and phenomena whose characteristics include the attribute "direction". Pupils learned the type of mental activity called "examining objects from several angles" from geographical and geometrical materials (when, for instance, depending on the task set, one and the same feature of a plan or map was
considered from various aspects). In the second stage, the pupils learned methods of transfer (what the author calls "transfer through learning"). For instance, they were asked to group together those objects and phenomena whose characteristics include the idea "mountains", and then to compare this type of generalization with that learnt in the preceding task ("direction"). With the experimenter's help, the pupils showed how the type of mental activity was reorganized in the process, how it was combined with others, and so on. In the third stage the children were introduced to "inter-subject" combination of activities (learnt from various teaching subjects) and also to the systematization of activities and the various methods of transferring them.

To identify the evidences of mental development the author used problems involving the independent transfer of types of mental activity ("control transfer"). The problems were set first to pupils in the experimental and control groups in the seventh grade, then to pupils in lower and higher grades. The author distinguishes the following evidences of mental development:

(a) In the experimental group, rational types of mental activity assume manifold functions in the pupil's school and out-of-school activity; they promote the acquisition of knowledge and the solution of problems, help to get full value out of visual material in textbooks, modify the pupil's attitude to work with visual aids, encourage the broadening of his cognitive interests, and so on.

(b) Broad transfer of types of mental activity to new problems, for which they are used as positive methods of work (involving the reorganization and combination of types of activity, etc.), occurred with pupils in the experimental group (in contrast to those in the control group) when dealing with control problems in which tests and photographs describing and illustrating the building of the Aswan Dam were used. In addition, the well-known thesis that, as the child grows older, so the scope (breadth) of transfer increases, was confirmed. The older pupils transfer types of activity to a broader range of problems than do the younger ones.

(c) Methods of transferring types of activity also change as the child grows older. First, the use of the types of activity themselves becomes more complex when transfer occurs. For example, the reorganization of the type of activity known as "establishing a correlation" (as in determining the right and left banks
of a river), consisting in the transition from direct to inverse connexions gives trouble to pupils in the fourth grade; but pupils in the seventh grade cope without difficulty with similar reorganization in the transfer of more complex types of activity.

Secondly, the use made of the study material, especially its transformation (in the transfer of types of mental activity) becomes more sophisticated. In pupils in the fourth grade simple methods of transfer are observed, without conscious transformation of the visual material. This is bound up with the negative effect of the latter on the solution of problems by younger children. There are two ways in which this influence is exerted. (a) There is the effect of particular features of the visual teaching material in front of the pupil's eyes. (For instance, the camouflaging of elements in a drawing impedes their recognition.) (b) Visual material recalled from memory, i.e., the mental image of it, influences the solution of problems. (For instance, the pupil remembers an illustration from his textbook and this image hinders him in solving the problem.) The fact that older children (ninth grade) actively transform visual material in more complicated tasks is apparent from the way in which they identify camouflaged features, examine the material from a number of angles and so on.

The author then deals with the phenomenon of the transition from "external" operations (effected on a practical basis, with the help of visual material) to mental operations. This is a special case of the transfer of types of activity, namely, their transfer from visual material to the mental sphere. There are various ways in which such transfer may proceed. In this connexion, special attention is devoted to "complete" and "partial" transfer, and to those methods of transfer described earlier (reorganization of types of activity, transformation of study material etc.). As the experiments made clear, the methods by which the pupil transfers types of activity to the mental sphere grow more complex as the child gets older.
This book consists of three parts. Part I deals with psychological investigations into personality and their significance for educationists; Part II, which has two chapters, deals with the social situation of and the drives behind, the child's development; Part III, which consists of four chapters, deals with the laws governing the shaping of the schoolchild's personality at different ages.

In Part I psychology is shown to be one of the most important of the scientific disciplines on which education is based; in particular, its significance for the scientific planning of educational curricula is brought out. Then the struggle on behalf of applied psychology and the integral study of personality is examined; the emergence and establishment of educational psychology are traced; and the crisis of the atomistic functional approach to personality and the attempt to find integral means of studying personality are described.

The author's attitude to the different psychological schools that have attempted to solve the problem of personality, from Wundt to Spranger and Stern, is briefly set out, and Freud's treatment of the psychology of personality is discussed in more detail. The author mentions the strong and weak points of Freudian psychology and shows why a genuinely scientific solution of the problem of the shaping of personality is impossible from the standpoint of this theory.
The author then discusses the approach to the understanding of personality and its formation in new psychoanalytical theories (Sullivan, K. Rogers, Adler, and Jung); the personality theory of K. Lewin and his school; and the theories of "socialization" and "roles" and so on. A brief review of the approach of Soviet psychology to the study of personality concludes Part I.

Part II sets out several general conceptions of personality and its shaping in childhood, based on the classification and summarization of a large number of experimental facts and partial patterns assembled in the course of investigations carried out over many years by the author and his fellow-workers in the Educational Psychology Laboratory of the Psychological Institute of the Academy of Pedagogical Sciences of the USSR. A number of propositions are formulated which make our picture of personality more concrete and specific and facilitate the elucidation of its precise psychological content. The difference between the concepts of "man" and "personality" are emphasized. Thus "personality" represents a higher stage in man's development, characterized by the possession of personal opinions and relationships, personal moral needs and judgements that make him relatively stable and independent of the circumstantial influence of his environment. The author emphasizes that, as the personality emerges, a definite pattern of activity becomes typical of it. Man, reaching this higher plane of psychological development, is capable of acting not only in response to direct stimuli, but also in accordance with consciously established aims and accepted purposes. Thus personality is characterized not so much by reaction as by genuine activity and by the ability to control behaviour and actions.

According to the author, the determining factor in the structure of a man's personality is his inner orientation. This is understood as a system of stable, dominating motives which exercises a decisive influence on the entire emotional machinery of his personality and the pattern of his psychological characteristics. Thus personality is regarded as an integral psychological structure, coming into being in the course of the individual's life and fulfilling specific function in his interrelationship with his environment. Being founded on the mastery of social forms of consciousness and behaviour, personality, as it takes shape, frees man more and more from the direct influence of his surroundings, enabling him not merely to adapt himself to them, but also consciously to reorganize his
environment to his own ends. Such a level of development is reached through living and acting, and by a number of stages.

In Part III the formation and shaping of personality at each stage of growth are discussed in detail. The author shows that development is characterized not by the mere sum of individual features, but by the originality of a few integral patterns of personality and by the presence of certain trends of development peculiar to each stage of growth.

The information presented on a child’s gradually increasing emancipation from the direct influence of its environment and the growing moral stability of its personality are of particular interest. From this standpoint, there is a most interesting treatment of adolescence as an age in which relatively settled self-evaluation, and a level of aspiration based thereon, take shape. This engenders in the adolescent a new need, to live not merely on the same level of demands as his fellows, but also on that of his own needs and self-esteem. Inability to satisfy his own aspirations and unwillingness to lower his self-esteem lead to sharp emotional experiences, which may retard, or even in some cases distort, the normal course of the shaping of personality. Thus, in the adolescent age-group a new factor in development, namely, the individual’s demands on himself, gradually emerges and becomes extremely important. In this way, we begin to understand why, beginning with adolescence, self-education becomes more and more important.

In the later school age-groups the paramount factor in mental development becomes the formation of a world outlook. Here the child’s personal problems and needs, bound together in a single system and embodied in some moral pattern, begin to perform the function of organizing all other needs and aspirations. They thus organize not only these needs and aspirations in themselves, but also behaviour associated with them.

The general trends of personality development at different ages discovered by Božović have made it possible to formulate some ideas about the drive behind such development. The theory concerns those first needs which determine the early stages of mental development. Despite the generally accepted view that development is determined by the child’s elementary biological needs, for food, warmth, movement, and so on, Božović
asserts that the main driving force behind mental development is the need for new sensory impressions. In the process of development, the infant's need for new sensory impressions grows into a cognitive need, i.e., into a desire to find out about the surrounding world. On this urge is built a new, no less important need for communication. It is precisely these needs, developing and changing, that determine the mental development of the child at all stages. However, at each stage they acquire a different content, a different structure, a different embodiment in practical forms of behaviour and activity.

Confirmation of the need for cognition as the leading factor in mental development gives quite a different picture of the infant's mental make-up from those of the conceptions of personality that attach paramount importance to his biological needs and propensities. For example, according to Freud, the infant is an isolated psycho-physiological system, turned in upon itself and motivated in its vital functions solely by the "pleasure principle". Hence, he has no need of the outside world; on the contrary, it is hostile to him and he seeks to avoid its influence in every way he can. From Božović's standpoint, the infant is a being wholly orientated towards the outer world; he constantly needs outside influences, which bring him joy and satisfaction. Bozovic produces a great deal of evidence to show that satisfaction of the need for sensory impressions is not only vital to the child, but also of greater emotional significance than the satisfaction of any other of his requirements.

Abstract submitted by M.S. Neimark, Psychological Research Institute of the Academy of Pedagogical Sciences of the USSR.
This monograph summarizes theoretical and experimental psychological research on the problem of mathematical aptitudes in children of school age. It is the first attempt in Soviet psychological literature to give a systematic account of the subject. The author discusses questions of the nature, structure and typology of mathematical aptitudes, and of the way in which the structure develops in the growing child. The basic theme of the monograph is as follows. The problem of aptitudes is one of individual differences. If all persons possessed equal potentialities for development in every direction and for the exercise of all kinds of activity, it would be pointless to speak of aptitudes. There is no one who has no aptitude for anything. Nonetheless, each human being may show a greater aptitude for one kind of activity and less for another; this makes it important to find out what each is best suited for. Aptitudes are not inborn; they develop in the course of life and activity, the conditions of which are the main thing. But the disposition, i.e., the congenital anatomical and physiological features of the brain and nervous system, plays a definite part.

Psychology has a task of practical importance in connexion with the study of aptitudes, namely, to establish the conditions that promote their formation, cultivation and development at various stages of growth. This is equally true of the study of mathematical aptitudes. Psychology must answer the questions: how, when, and under what conditions can schoolchildren with aptitude for mathematics acquire the necessary knowledge,
skills and habits reasonably well? No less important is the question: what conditions afford the gifted pupil the opportunity of further developing his aptitudes? To reply to these questions, one must know what mathematical aptitudes are, what is their nature, and what individual psychological characteristics influence the successful mastery of mathematics.

The following practical research tasks proceeded from the general problem stated above. The first and fundamental task was to investigate the structure of natural gifts for mathematics in children of school age, i.e., that of the analysis of the total characteristics of the mind into the essential components of its structure. The author devised an experimental method of investigating mathematical aptitudes (an original system of exercises) the application of which is not confined to his own research but can also serve as the basis for the practical study of the mathematical aptitudes of any pupil. Having established the distinctive features of the development of mathematical gifts, the author proceeded to bring to light the typological differences in the structure of aptitudes, in other words, to study the different types of structures. Then, having established the differences in mathematical aptitudes of schoolchildren at various ages, and the corresponding changes in the relationship between the various components, he charted the rate at which the aptitudes developed, tracing the successive stages in this process from initial manifestations in the youngest children to the more complex and sophisticated forms observed in older pupils.

Although the author emphasizes that he is considering only the aptitude of children for learning mathematics within the framework of the school curriculum, he also shows that these aptitudes are linked with the creative and to some extent unaided learning of mathematics (e.g., the unaided statement of problems and the discovery of ways and means of solving them, the unaided deduction of formulae, the discovery of proofs of theorems, and other kinds of creative activity deployed in the process of mastering mathematics).

The results of the experimental investigations make up the main part of the book. Non-experimental methods were, however, also used (dispatch of questionnaires to eminent mathematicians and mathematics teachers, mass inquiries and the like).
The experimental method of investigation consisted in the qualitative and quantitative analysis of the way in which pupils with different degrees of aptitude for mathematics solved special experimental mathematical problems designed to bring out their individual psychological characteristics. The general trend of development of the components of mathematical aptitude was studied in two ways: (a) by comparing the results achieved by cross-sections of a variety of pupils at different stages of development; and (b) by comparing the results obtained by cross-sections of the same pupils at successive stages of their individual development. The author devised a special system of experimental exercises on the basis of a comprehensive study of the mathematical aptitudes of pupils from the fifth to the eighth grades.

A separate section is devoted to a discussion of the methods used in the investigation and its organization. In the same section all the experimental series are described in detail, together with the technique of presenting them and the method used in evaluating the results. In another section, a great number of works by Soviet and foreign authors dealing with the problem of the psychology of aptitudes are analysed, with particular reference to mathematical aptitudes. This is the first time in the history of Soviet psychology that so broad a review of the subject has been made.

The third part of the book contains an analysis of the structure of mathematical aptitudes in schoolchildren. In it, the principal results of the investigation are discussed. The first chapter in this part deals with the non-experimental information gathered on the components of mathematical aptitudes and their typology. The author analyses and sums up the relevant pronouncements of the eminent mathematicians and mathematics teachers consulted. In succeeding chapters are to be found analyses of the components of mathematical aptitudes and of the distinctive features of the mental activity of schoolchildren with a gift for mathematics (in comparison with average and poorly-endowed pupils) in solving mathematical problems.

The author discusses the principal structural components of the mathematical aptitudes of schoolchildren in relation to the three main stages in the solution of problems. (a) So long as the solution of a problem begins with the comprehension of the data and their thorough consideration by the pupil, those components
which characterize the ability to take in information about the problem (the initial reaction to the problem) stood out in the structure of mathematical aptitudes. (b) The second group of components is bound up with the special features of processing this information in the solution of the problem (second stage, the solution proper). (c) The third group marks the pupil's ability to retain mathematical information at various stages of the development of mathematical aptitudes.

The material collected, backed up by a study of the specialized literature, enabled the author to construct a general picture of the structure of mathematical aptitudes in children of school age. At the same time, each component was correlated with a particular stage in the solution of problems. The components are:

1. Aptitude for the formalized perception of mathematical material, for swiftly grasping the formal structure of the problem. The pupil sees the "bones" of the problem at once, as in an X-ray taken through the "flesh" of the factual data.
2. Aptitude for logical reasoning in terms of numerical and spatial relationships and for the symbolism of figures and signs; ability to think in mathematical symbols.
3. Ability to generalize mathematical units, relationships and operations quickly and broadly.
4. Aptitude for taking short cuts in mathematical reasoning and the corresponding mathematical operation; ability to think through generalized structures.
5. Flexibility of abstract thought processes (easy and free switching from one to another) in mathematical activity, versatility of approach to the solution of problems.
6. Striving for clarity, simplicity, economy and rationality (elegance) in the solution.
7. Ability to reorient thought process quickly and easily.
8. Mathematical memory (a synoptic memory for mathematical relations, standard features, schemes of reasoning and of mathematical proof, methods of solving problems and principles of approach to them).
9. The author considers the last, ninth, component independently of the stage of solution of the problem, calling it the "general synthetic component". This is the mathematical orientation of the brain, a distinctive organization of the mind that finds expression in an effort to reduce the phenomena of the surrounding world to mathematical form and to perceive them on the plane.
of mathematical and logical categories.

At the same time, the author shows that several components frequently regarded as mathematical aptitudes are in fact neutral. Among them are: speed of thought processes, an aptitude for calculating, memory for numbers and formulae, a gift for spatial representation and ability to visualize abstract mathematical relationships and functional dependencies. The extent to which these components are developed determines the type of mathematical turn of mind. They need not necessarily occur in the structure of mathematical aptitude.

In conclusion the author specially emphasizes that diagnosis of mathematical aptitudes is not merely nor even primarily to be regarded as a means of selecting pupils. It is to a substantially greater degree the indispensable element in the proper organization of education and upbringing, in the individualization of teaching. The author also avoids another error at one time common in psychometric research. Short-term investigations using specially chosen problems can be used, in his own words, only as an auxiliary tool. The principal method of determining mathematical aptitudes must remain the observation of the course of the pupil's mathematical development over a reasonably lengthy period.

At the end of the book there is a bibliography of literature on the subject, in which some 750 Soviet and foreign sources are listed.
This monograph provides a comprehensive clinical, pedagogical and psychological study of children in special schools for the blind and poorly sighted. It summarizes investigations aimed at planning ways of differentiating teaching procedures for children with severe visual defects according to the state of their mental development. Ways of improving corrective training and medical treatment in special schools are considered.

In chapter 1, the characteristics of the inmates of schools for the blind and poorly-sighted children (by M.I. Zemstsova), the history and clinical and pedagogical details of 4,680 blind and 511 poorly-sighted children are given, followed by analyses by grade, sex, age group, level of central visual acuity, aetiology, nature of attendant disorders, progress made, and so on. The findings are based on selective statistical analysis of the data yielded by observation of the children in the course of 1963.

The investigation revealed that 14.7 per cent of all pupils in schools for the blind were completely sightless. Sensitivity to light and ability to count fingers in front of the face were found in 12.9 per cent; 24.6 per cent had visual acuity in the range of 0.01 to 0.04, with another 17.7 per cent in the 0.05 to 0.08 range; and 30.1 per cent had visual acuity of 0.09 and above. In schools for poorly-sighted children 84.3 per cent of the pupils had visual acuity in the range of 0.09 - 0.2 and above, the remaining 15.7 per cent falling...
in the 0.05 - 0.08 range. Compared with figures for 1958, the data reveal a significant decrease. There has been a significant change also in the causes of child blindness and defective vision. It is explained that the clinical manifestations most commonly found in schools for the blind are: atrophy of the optic nerve, cataract, and trachoma. In the case of poorly-sighted pupils anomalies of refraction are the main clinical forms (47.8 per cent). The ratio of acquired to congenital clinical forms of blindness and defective vision has changed, the proportion of poorly-sighted and blind children with acquired forms having fallen substantially (to 25-33 per cent). In 14.2 per cent of pupils at schools for the blind and the poorly-sighted, loss of vision is accompanied by impairment of the intellect, speech, sensory functions, and locomotion, or by other defects.

The development of a differentiated network of schools is advocated in the light of the results of the study; recommendations are made on proper staffing, and on individual instruction for blind and poorly-sighted children, providing for the protection and development of their residual vision.

In chapter 2, on the main clinical forms of child blindness: their aetiology, characteristics and trends (by A.I. Kaplan), the data collected by the author are compared with information in the specialized literature on questions of the aetiology and main clinical forms of child blindness. On the basis of a prolonged and thorough study of pupils at strictly sampled schools for blind children, it is shown that 64.9 per cent of cases were of congenital and 25.4 per cent of acquired origin, and that 3.7 per cent were associated with the pathology of the birth process (in 6 per cent of cases the origin of the blindness remained undetermined). The main causes of child blindness were genetic factors, pre-natal processes so far inadequately studied, and infections of the nervous system.

The main clinical forms of blindness were atrophy of the optic nerve, congenital cataract, trachoma, and congenital glaucoma. It was established by statistical methods: (a) that the main cause of total blindness in children of school age is congenital glaucoma; (b) that there is a conformity between atrophy of the optic nerve and the deep pathology of the brain, emphasizing the need for observing children in the light of the special features of their development; and (c) that a possibility exists of developing the visual functions to some extent
even when the visual receptors are severely affected.

Recommendations are made on the protection of sight, the medical treatment of eye diseases and a differentiated pedagogical approach to pupils in schools for the blind.

In chapter 3, on psycho-neurological features of schools for the blind (M.S. Pevsner), the author's findings on complex forms of blindness associated with neurological disturbances are described. Blindness was found to be associated with feeble-mindedness in 6 per cent of 216 blind children examined. The combination of feeble-mindedness with atrophy of the optic nerve, cataract, and trachoma leads the author to speculate that these cases are due to strictly localized intra-uterine damage to the central nervous system. Cases of congenital blindness similarly accompanied by temporary retardation of mental development are reported and described. The author has met neurological disturbances in cases of acquired blindness, resulting from communicable meningitis, meningitis and, most frequently, tubercular meningitis. For the first time, cases are described in detail in which blindness and neurological changes in the mental activity of pupils, impairing their performance in class, have arisen in children with the growth of tumours or the development of hydrocephalus.

Suggestions are made in the light of the results of the study about the differentiation of instruction, corrective training measures, methods of pathogenic treatment and the principles of the individual approach to blind pupils suffering from psycho-neurological disorders.

In chapter 4, on electrical activity of the brain in pupils at schools for the blind (by L.A. Novikova), it is established that total blindness and the presence of visual sensation lead to a sharp drop in the electrical activity of the cortex, reflected in obliteration of the alpha rhythm, a fall in the voltage of the oscillations, and a decline in the focus of maximum electrical activity in the central region of the cortex, where Rowland's rhythm has its origin. The changes in electrical activity recorded on the electro-encephalogram (EEG), in the blind, are interpreted by the author as the expression of a slight lowering of cortical tonicity, and the development of compensatory processes in the motor elements. A direct correlation was established
between the magnitude of the changes in the EEG and visual acuity; the possibility is demonstrated of using the electro-encephalograph as a diagnostic tool in diseases of the central nervous system in blind and poorly-sighted children.

In chapter 5, on the development of cognitive activity in blind children of pre-school age (by L.I. Solntseva), a lack of balance in the development of different modes of perception as a function of their interaction with the diseased receptors is reported. Throughout the pre-school years the tactual perception of objects is extraordinarily global and poorly differentiated. The forms of tactual perception differ not only in their modality, but also in the character of their generalization, which to an appreciable extent is bound up with difficulties in developing the generalizing function of speech. Despite substantial errors in understanding the meaning of words, much use is made of them in forming images of objects. Auditory perception is more highly developed than tactual; in older pre-school children it is both differentiated and analytical. The combined use by blind children of residual vision and touch results in a higher level of differentiation of the attributes of the perceived objects.

In chapter 6, on features of the mental development of children with visual defects (by M.I. Zemtsova), the relationship between the degree of impairment of central visual acuity and the completeness of perception and fashioning of shapes, objects and images is determined. It is shown that blindness and severe visual defects affect the development of mental processes: rational memory, voluntary attention, speech, and mental activity in general. In partially-sighted and poorly-sighted children the process of visual perception is fragmentary, slow and subject to other disturbances. The various aberrations of mental development observed are not constant features invariably found in blind and partially-sighted children. As instruction proceeds, the developmental shortcomings due to severe visual defects are made good.

On the basis of the known development of reserve potentialities to compensate for impairment of function, recommendations are made on the differentiation of instruction and on the conduct of corrective training in schools for the blind, aimed at preventing or surmounting secondary defects in the child's development.

Chapter 7, on the state of knowledge and skills in
the matter of the Russian language of pupils at schools for the blind (by N.S. Kostiucek) is based on a study of dictation given in the first to fourth classes of thirty schools for blind children (1,569 pupils). The general and special difficulties of teaching and learning arising out of the complicated technique demanded by the use of embossed characters and of the underdevelopment of phonemic hearing, and other complications, are discussed.

Special methods of improving the qualitative development of auditory perception and attention in blind pupils are described. With a view to enhancing the literacy and general speech development of pupils at schools for the blind, grammatical exercises of various kinds are proposed, together with more widespread use of teaching practice of different kinds of visual and other instructional aids.
The scope of this study is educational development in Iceland from the ninth century till 1966. Special attention has been given to social, political and economic issues which were effective in determining the growth of education in Iceland.

The procedure consisted of a review of the literature, a series of interviews, search of legal records, newspaper files and school records, translations of laws and other relevant data, and subsequent tabulation and organization of the material.

Eight major periods of Icelandic education were identified and presented.

(I) From colonization to reformation (874-1550)
(II) The reformation period (1550-1745)
(III) Educational awakening (1745-1800)
(IV) The nationalistic movement (1800-1874)
(V) The public education movement (1874-1904)
(VI) Formation of an educational pattern (1904-1918)
(VII) Period of consolidation (1918-1944)

(1) Available from the University Microfilm Service.
(VIII) Era of modernization (1944-1966)

I. In the first period, special emphasis was placed upon cultural characteristics, the founding of the Althing (930), the legalization of Christianity (1000), the legal and administrative conflicts between the Althing and the Church which led to a complete loss of independence, first to Norway, in 1264; later to Denmark in 1380 when King Olaf of Denmark became King of Norway; and then in 1397, the official date of the beginning of the union of Denmark, Norway, and Sweden under King Eric. Scholarship and learning were highly esteemed and public literacy was developed to a higher level than in the other countries of Northern and Western Europe. This situation can be directly related to the general practice in Iceland of reading sagas and composing poetry in the home. The first schools, founded in the eleventh century, were priests' schools operated by bishops, priests and monasteries.

II. During the Reformation period, the responsibility and power of the Icelandic church declined and the influences dominating education were found primarily in Denmark rather than in Iceland. This shift of power from Iceland to Denmark gradually became established as a permanent administrative feature, a situation which persisted until late in the nineteenth century. The kings of Denmark, however, showed considerable interest in public education. This is apparent from the numerous and various ordinances issued concerning instruction in Christian doctrine and in promoting reading skills. The general progress of Iceland, however, was severely handicapped by unfavourable economic conditions.

III. Following the famous educational survey of Harboe and Thorkelsson in the 1740s a new period of educational awakening commenced. The survey represented the first major step taken by the Danish Government to improve Icelandic education.

IV. During the period between 1800 and 1874 indigenous cultural influences were expressed primarily in a strong nationalistic movement with the objective of regaining full independence from Denmark.

V. Between 1874 and 1904 many schools were founded and interest in public education increased. The first public education act was passed in 1880.

VI. Some of the most important and far reaching basic legal developments relating to education occurred
between 1904 and 1918. The Public Education Act of 1907 is also of major importance as it established basic educational policies.

VII. In 1918 Iceland received a new constitution increasing the political and administrative power of its citizens. Under the centralized administration of the Ministry new schools were founded. The financial basis, however, was determined by the Althing and the municipalities.

VIII. After Iceland had regained complete independence (1944) the era of modernization began. In 1946 major laws pertaining to the entire school system were passed by the Althing. Until that time each school or stage of education had been subject to its own laws and statutes.

An analysis of the existing educational system in Iceland reveals basic disadvantages in the limited scope of its teaching programmes, in the involvement of its legislators in policy-making, and in the vagueness of authority relationships between the various administrative bodies. It is also apparent that numerous important social and economic factors have been overlooked in educational planning that some programmes and traditional institutions have not been continuously re-evaluated and related to changing times.

At the present time the Government is making extensive plans to modernize the nation's educational system and these it is hoped will have important and far reaching effects on the economic and social development in Iceland.
On 29 December 1967, by Presidential Decree 62,024, a Special Commission was set up to examine student demands and propose measures that would more clearly define governmental policy in education together with the procedures for its application. After three months' deliberation, the Commission submitted a report to the Ministry of Education and Culture in four main sections: (1) its own background and terms of reference; (2) inadequacies of Brazilian education and their repercussions on university life; (3) proposals and resolutions; (4) annexes. In a preliminary note, the Commission states that everything must be done to carry through the strategic educational development programme. The report then lists the remedial measures proposed by the Commission.

(1) Lack of co-ordination between the various services of the Ministry precludes any coherent educational policy.

Proposal: The Commission proposed the following arrangements for the Ministry. The Minister may consult the Federal Council for Culture and the Federal Education Council. He should have a General Secretariat, responsible for four Directorates-General (Personnel, Culture, Education, Auxiliary Services) and an Inspectorate of Finance; the Directorate-General of Education in turn would have four directorates (Higher, Secondary, Primary and Technical Education). The Security and Information Division, and the Legal Directorate should be directly responsible to the Minister.
The application, since 1961, of the Education Directives and Principles Act to university and faculty autonomy, and to the powers of the Federal Council of Education led to a crisis in authority, the Minister's role becoming that of a simple executive.

Proposals: (a) Enable the President of the Republic to appoint rectors of universities and directors of colleges of higher education without regard to the proposals of the universities or the faculty boards. (b) Alter disciplinary arrangements in the federal universities, making the rectors and directors personally responsible for discipline in their establishment, without being required to refer to the university councils. (c) Amend the Education Directives and Principles Act in regard to the powers of the Federal Council of Education and to university autonomy.

Inadequate salaries of staff in higher education.

Proposals: (a) As an immediate solution increase remuneration in proportion to overtime worked over and above the minimum weekly eighteen hours required under the Staff Conditions of Employment. (b) As its definitive solution, enact legislation fixing remuneration in terms of output. (c) In new appointments, relate the contracts to the stipulations of labour legislation.

In terms of university chairs, freedom is an equivocal notion which tends to be confused with privilege.

Proposal: Strengthen the principle of authority in university matters.

Lack of firm policy regarding applications for admission to higher education.

Proposals: (a) Closer co-ordination is needed between the Ministry and the universities. (b) Budgetary appropriations for the universities should be used strictly in accordance with a well-defined plan. (c) Reform the system of teaching-staff remuneration. (d) Apply university reform as rapidly as possible.

Delays in applying the university reform promulgated by Decree Laws 53 (18 November 1966) and 252 (28 February 1967), which was implemented without regard to the need to lighten curricula and reduce the length of professional
training.

Proposals: (a) Immediate application of the credits system included in the university reform, making registration by subject compulsory. (b) Arrangement of timetables to make better use of existing resources (lecture rooms, laboratories, etc.) (c) Establishment, in the long-term, of a new Brazilian university to provide a common culture, resting on technological and scientific progress.

(7) Absence of any true democratic and realistic leadership in the student movement.

Proposal: Encourage such leadership to emerge, with the co-operation of the public authorities and private enterprises.

(8) Student discontent has been provoked by the regimentation of their corporative organization, by injustices in the allocation of university fees, the way in which university preparatory courses operate, the price of books, and social welfare problems.

(9) Inadequate resources earmarked for education, little efforts to find new ones.

Proposals: (a) Abolish official free higher education. (b) Establish a national bank for education. Its capital would be provided from private and public resources. It would allocate federal taxes among the states and municipalities. Private firms and corporations would be invited to help finance education through arrangements allowing them to pay a part of their taxes to this bank.

No firm solution was suggested regarding the regulation of corporative organizations; the Commission considers that student leadership must first emerge.

The Commission further suggests: (a) that senior secondary education curricula be revised so as to prepare students better for higher education; (b) that there should be legislation to protect poor students against unjustifiable charges levied by some private establishments; (c) better co-ordination of the Ministry's services responsible for publications, with a view to making textbooks available at reasonable prices.
The Commission's essential conclusion is that Brazilian education as a whole must be reformed. To this end, the opposition of vested interests and prejudices which tend to perpetuate the present rigid system must be overcome.

Among the contents of the annexes to the report are the detailed proposals addressed to the Ministry of Education and Culture.
Decree 62,937 (2 July 1968) set up in the Ministry of Education and Culture a working group of eleven experts in higher education; it was invited to give its views on Brazilian university reform - the modernization which would fit the universities to produce the skill and management necessary for the country's development. Asked to report within thirty days, the group formed four sub-groups: (i) organization of higher education, legal and administrative status of the university; (ii) structure of university education, teaching staff, progressive organization of advanced university studies and research; (iii) financing the development of higher education; (iv) students and student participation in university activities. Each sub-group submitted draft laws or recommendations; these are appended to a general report.

The introduction to this report states the principles underlying the working group's proposals for a university reform adapted to the current social transformation in Brazil; to eliminate the obstacles to university development and provide the university with the means of reconciling mass education with scientific creativity and the development of the highest cultural potentialities of the nation. To this end, the traditional academic establishment must become a focus of scientific and technological research, capable of ensuring autonomous industrial development in Brazil and training all young people wishing to follow technological and professional careers in an industrial society.

The legal and administrative status of these uni-
University institutions must be flexible, allowing them constantly to adjust to economic and social developments. Irrespective of legal status - whether society, establishment or association - and while being subject to state control (especially as regards economic and financial activities) their autonomy should be guaranteed.

The structure of university education having already been covered in Decree-Laws concerning the federal universities, the working group considered questions of general policy affecting the individual establishment, and especially the major question of linking secondary and higher education. The question was considered both quantitatively (inadequate number of university places available) and qualitatively from three points of view—(i) secondary education (its present structure reflecting the stratification of society at a given moment in its development); (ii) higher education; (iii) the transition from one to the other.

The working group suggested: (i) a single entrance examination, valid for all the universities; (ii) a first cycle, comprising a general preparatory course for new students; (iii) various facilities for proceeding from the first cycle to professional courses; (iv) minimum curricula laid down nationally by the Federal Council of Education, the universities being empowered, on this basis, to make regional adjustments to take care of local conditions and employment needs and possibilities; (v) an academic year of 180 days, but with the universities in operation continuously.

Teaching staff: the working party's first principle is that teaching and research should be closely linked; hence the full-time rule for all teachers. The professorial chair should be replaced by the department. Teaching posts should be open to all qualified persons and the methods of appointment should be standard, with promotion based solely on merit and salary levels based on the duties performed.

Since directives issued by the Federal Education Council regarding advanced university studies allow the universities full freedom, the working group considered that research is at a sufficiently advanced stage to justify introducing Masters' or even Doctorate courses. It suggests that the Council establish regional centres for advanced university studies in certain universities to train research scientists and staff for higher education.
Students: As regards student participation, the group merely recommended more staff-student dialogue, more flexible legislation regarding participation, and the appointment of students as monitors so as to ensure a more active part in teaching and research.

Expansion of higher education: The working group recommended a balanced expansion, with due regard to educational needs generally, the increase in population and employment openings. Minimum aims are suggested as from 1969.

Measures required: The aim is to have 110,000 candidates pass the university entrance examination in 1969, and in 1970 to plan expansion as far as 1975.

Measures are needed to solve the problem of candidates who pass the university entrance examination but cannot find a place in the faculties; to increase the numbers doing priority courses (e.g. secondary teaching, medicine and related professions, engineering, technology); to re-establish the balance between supply and demand as regards places in establishment of higher education; to eliminate obstacles which, on the labour market, obstruct the careers of various categories of graduate (particularly junior technologists).

Among other measures, the group suggests arrangements in conjunction with the National Education Development Fund to finance the expansion of higher education.

Abstract submitted by Mrs. Regina Helena Tavares, Centro Brasileiro de Pesquisas Educacionais.
The Advisory Committee on Educational Television Services was appointed with ministerial approval, by the Australian Broadcasting Control Board to advise the Board on the contribution television could make to education in Australia. The Board is responsible for the provision and planning of broadcasting and television services, but not for their operation. The terms of reference required the Committee to consider if the number and type of educational programmes should be increased, what additional facilities should be provided, and what should be the organization and financing of educational television services.

The Report distinguishes between two kinds of educational programme: "instructional television", covering all applications of television in formal teaching relevant to prescribed courses, and "general enrichment", embracing informative and cultural programmes. As Australian television stations, both national (the Australian Broadcasting Commission) and commercial, are already obliged to provide programmes of general enrichment, the Committee's primary concern was with instructional television. This it divided into three sub-categories: total teaching; supplementary teaching, in which the class teacher conducts preparatory and follow-up work; and related enrichment, in which matter not readily available to the class teacher is conveyed by television.

Both national and commercial stations at present televise instructional programmes, some specifically intended for schools. The Committee found these
programmes uncoordinated, reflecting the interests of those who produced them rather than the requirements of educational authorities.

The Committee advised that instructional television should be developed as an integral part of the educational systems in Australia. A greater number and variety of programmes are needed than are now available. Except in emergencies, instructional television cannot replace the classroom teacher, and should be used as a superior teaching aid.

At the pre-school level the need is not as great as at others, but programmes of a general enrichment type and programmes totally teaching small items related to the children's interest could be televised.

In the later years of primary schools there is scope for enrichment programmes in such subjects as English, social studies, nature study and health education. Direct teaching should be given in speech training, physical education, music, art and foreign languages.

In secondary schools, supplementary teaching is needed in the physical and biological sciences, mathematics and foreign languages. The humanities and social sciences would benefit from supplementary teaching as well as programmes of related enrichment.

In technical colleges and institutions specialised courses mean that the potential audience is small; closed-circuit operation would be preferable to broadcast transmission.

In teacher education the use of closed-circuit systems would be valuable in the initial training of teachers, especially in televised demonstration lessons. For practising teachers, broadcast programmes could provide a valuable complement to in-service courses, particularly for those in rural schools.

In universities all students could profit from related enrichment programmes, although supplementary teaching is not necessary at present. There are insufficient external students to justify direct instruction for them by television. In university extension courses, television could be a valuable means of bringing graduates up to date with recent developments in their profession, and of providing refresher courses for women graduates wishing to resume their careers.
For those who left school at an early age, educational television could provide a valuable service. For other adults who are unable to attend existing classes, total teaching by television supplemented by notes would be appropriate, their higher motivation and maturity enabling them to profit from this in a way which children could not.

Instructional programmes must be skilfully planned and produced so that they genuinely serve the purpose of instruction. Schools and other users should be notified of programmes at least six months before the beginning of the school year. Adequate printed notes should be supplied where necessary, and there should be adequate repetition of programmes. Consultation between class teachers, television teachers and producers is essential.

The responsibility for policy, planning, and preparation of educational television programmes should rest with a single authority and not with a body which has extensive responsibilities in other fields, such as the Australian Broadcasting Commission. This authority should work in close association with the state educational bodies, which would plan the courses to be televised and assist with the provision of writers and teachers. The authority would also engage in evaluative research. Ultimately it would be responsible for instructional radio programmes (at present the responsibility of the Australian Broadcasting Commission). It should not be in a position to direct institutions to use its programmes. This should depend on their merit and the co-operation of teachers.

The authority itself might consist of a central governing body, with relatively few members. It would work through a planning committee in each state whose members would be drawn from educational organizations directly concerned with the use of television as a teaching medium.

To introduce the educational television service, existing transmitters, studio and production facilities should be used, but separate exclusive facilities should be provided progressively. As instructional programmes need not be as elaborately presented as most entertainment programmes, production facilities need not be as complex or expensive. One VHF channel should be reserved for educational purposes in each capital city and in each of the provincial and country service areas. In addition, when the Board exercises its responsibility and allocates channels in the UHF band,
reservations should be made for educational use.

The costs of establishing and operating educational television services should be borne by the commonwealth government from loan funds and consolidated revenue. The estimated annual operating costs would be approximately $A 7 million, while the capital costs, to be spread over a number of years, would be approximately $A 10 million.

Appendices to the Report include a detailed account of educational television programmes in Australia, 1957–1964, and a description of educational television services in Canada, France, Great Britain, Italy, Japan, Sweden, U.S.A. and U.S.S.R.

(Note: The Report was submitted to the government in 1965. In 1966 after consideration of the report, talks between the commonwealth and the six state governments of Australia were initiated, in order to assess priorities and determine what the states wanted.)
Education is the constitutional responsibility of each state, but since World War II the Commonwealth has increasingly given the states financial assistance in the field of university education. In 1957 the Report of the Committee on Australian Universities recommended that a permanent committee similar to the British Universities Grants Committee be formed. This was accepted by both the commonwealth and state governments, and the Australian Universities Commission was established in 1959. The function of the Commission is to inform and advise the Commonwealth on the necessity for financial assistance to the states in relation to universities, with a view to promoting the balanced development of the universities so that their resources can be used to the greatest possible advantage of Australia. The Commission investigates the needs of the universities and periodically plans a three-year programme for both recurrent and capital expenditure. When the Commonwealth approves this programme, grants are made to the states on a matching basis: $1 for $1 for capital expenditure and $1 for $1.85 for recurrent expenditure. This report describes developments during the 1964-66 triennium, and makes recommendations for 1967-69.
Developments during 1965-66 included the creation of four new universities, three of them new institutions and the other a university college which was given autonomy. There are now fourteen Australian universities and three university colleges, and a new university is planned in Brisbane. The existing and proposed institutions should provide adequate university facilities at least into the middle of the next decade, provided that other sectors of tertiary education are developed as recommended by the Tertiary Committee's Report.² Nevertheless, many qualified students have been unable to gain admission to universities or to courses of their choice.

The demand for higher education is continually increasing. Of the university age-group (17-22), 2.3 per cent were enrolled in universities in 1946; 7.8 per cent in 1966, rising to an estimated 8.4 per cent in 1969. There is no evidence yet that the percentage enrolment is approaching a constant value. The total number of university students rose from 69,070 in 1963 to 91,160 in 1966, an increase of 32 per cent. The estimated number for 1969 is 109,480, an increase of 20 per cent on 1966. Postgraduate enrolments are increasing at a more rapid rate than undergraduate enrolments; by 1969 over 10 per cent of total enrolments will probably be for higher degree studies, compared with 8.38 per cent in 1966 and 2.78 per cent in 1953. Overseas students, mainly from Asian countries, form about 10 per cent of full-time university enrolments. During this period of expansion the proportions enrolled in the various faculties have shown little variation, except for arts, which has increased its share, and medicine and engineering, which have shown a decline. Although there are difficulties in recruiting staff in some subject areas, in general the situation has improved, as indicated by the increasing proportion of lecturers with higher degrees.

The capital grants recommended by the Commission cover university buildings, computers, teaching hospital buildings, special research grants and student residences; these fields have been supported by the Commonwealth in the past. The grants recommended for 1967-69 are much

greater than those approved for 1964-66, a significant proportion of the increase being due to the needs of new and rapidly expanding universities. Two special grants are proposed, one for teaching equipment for une in departments which have not had new buildings, and the other to develop material in university libraries for the humanities, social sciences and law. The libraries have barely been able to keep pace with new publications, and in many fields there are deficiencies which can only be remedied by the requisition of expensive, out of print material. This grant should be spent on material not otherwise available in Australia. The Commission endorses the twofold nature of commonwealth support for research. In addition to the university research grants, the Australian Research Grants Committee allocates funds to selected individuals and projects.

The general recurrent grants recommended for 1967-69 allow for an improvement in the student-staff ratio at the older universities which are operating with relatively high teaching loads. These universities also require funds to improve their administrative machinery. Recurrent grants are also recommended in respect of teaching and administrative costs of student residences, and costs of teaching hospitals directly attributable to the provision of clinical training for medical students.

(Note: After discussions with the state governments, the Minister-in-Charge, Commonwealth Activities in Education and Research, announced the level of expenditure which the Commonwealth was prepared to support. Overall, this amounted to about 10 per cent less than the recommended programme, but the reductions were not uniform. The special grants for libraries and teaching equipment were not approved. The government agreed that sub-graduate courses should be transferred to other institutions, but adult education is still under consideration.)

At present various sub-degree and miscellaneous courses are available at the universities. The Commission believes that the minimum qualifications awarded by a university on the completion of a course of study should be a bachelor's degree, and thus recommends that sub-graduate courses, including adult education activities, be transferred to other institutions by 1970.


Abstract prepared by the Australian Council for Educational Research, Melbourne, Australia.
This committee, known as the Wark Committee, was established in 1965 to advise the Minister-in-Charge of Commonwealth Activities in Education and Research with a view to promoting the balanced development of tertiary education outside the universities and teacher training colleges. This was recommended by the Committee on the Future of Tertiary Education in Australia (the Martin Committee), which in 1965 stressed the need for developing and diversifying tertiary education outside the universities, tertiary being defined as education beyond the completion of a full secondary education or its equivalent. The aim of this development is a new type of institution, the college of advanced education.

In accepting this recommendation, the commonwealth government also accepted a measure of financial responsibility for its implementation. Constitutionally, education is the responsibility of the states, but since World War II the Commonwealth has provided an increasing amount of financial assistance for the universities, in the form of grants which are matched by the state governments. This principle has now been extended to advanced education other than universities and teachers' colleges, and one of the Wark Committee's tasks was to recommend the levels of financial assistance for the triennium 1967-69. Support will be given to those courses and institutions whose work is in keeping with the committee's aims; thus, while the states are still free to act independently, the committee's recommendations will have considerable influence on tertiary education in all states.
The tertiary institutions which are to be developed into colleges of advanced education fall into two main groups; institutes of technology or technical colleges, which are government-sponsored multi-purpose institutions catering for a number of vocations; and specialist institutions such as agricultural colleges or schools of physiotherapy, some of which are privately run. The report is mainly concerned with the first group, which is by far the larger. It is recommended that where possible the specialist institutions share the amenities and courses of a nearby multi-purpose institution, and that this might be promoted through membership of an institute of colleges.

The colleges of advanced education are intended to provide a greater breadth of education than do most of the existing technical colleges. This will be achieved in the following ways: the introduction or expansion of vocational courses with a liberal arts content such as librarian training, journalism, fine arts, management; the introduction of some broadening subjects into all vocational courses; the improvement of library facilities; the provision of recreational and social facilities for students and staff. The existing institutions suffer in many cases from sub-standard buildings, equipment and libraries.

The multi-purpose institutions have traditionally provided courses at a number of levels as well as tertiary diploma and certificate courses. To be true colleges of advanced education, the tertiary student body must be large enough to have an identity of its own, and tertiary courses should be separated as much as possible from general technical education. It is unlikely that a community of less than fifty thousand could provide a student population with sufficient diversity of interests and courses.

The colleges will differ from the universities in the following respects: the primary emphasis will be on teaching, with far less attention to post-graduate training and research; the vocational purpose of the courses will be more direct, with the emphasis on application rather than on the subject as a discipline; there will be a more direct and intimate relationship with business and industry; entrance requirements will be more flexible; there will be a greater concentration upon part-time studies associated with employment.

It is desirable to have a limited number of first class courses in a given field rather than to set up similar courses in too many centres. Appropriate grants
and living allowances would be necessary for students wishing to undertake specialist courses in other states.

Few tertiary colleges offer residential facilities for students, but these could be appropriate and eligible for Commonwealth support where colleges serve a large area, or for colleges which offer courses not available elsewhere.

The Advanced Education Scholarship Scheme makes available 1,000 awards for either full-time or part-time study. Benefits include the payment of all compulsory fees and a living allowance (subject to a means test).

The teaching staff in the colleges will play a decisive role in their success. Recruitment has been difficult because of poor working conditions and low salaries in many cases. It is hoped that increased prestige and improved conditions will attract men and women from industry and from abroad. The teaching staff should maintain close contact with business and industry, and have a voice in major policy decisions.

At present students who wish to continue their studies after obtaining a diploma normally transfer to a university. In a few limited fields post-diploma courses could be established by the colleges themselves, but a more general solution would be the establishment of a post-diploma institution in close association with industry, which would serve the whole of Australia.

Appendices to the report include descriptions of the different patterns of tertiary education in each state, and the projected tertiary enrolments by institutions and fields of study up to 1969.
This is the first comprehensive survey of education and training for agriculture in Australia. The present facilities are described, and then set against estimates of present and future needs. Constructive proposals are made as to how these needs can best be met by agricultural institutions of various types.

Secondary schools, technical colleges and schools, institutes of technology, agricultural colleges, universities and agricultural extension services are all involved in agricultural education and training in Australia. Education is the responsibility of the individual states, and there is considerable variation in practice and organization from state to state. Each state should form an agricultural education advisory committee representative of primary producers, agricultural industry and commerce, relevant government departments and educational institutions to ensure a complementary system in which each institution has a recognized role.

Some secondary schools in each state provide agricultural courses or subjects. At present, farming absorbs a relatively large proportion of those who leave school early with little formal education above the statutory minimum. As agriculture in the future will require a more highly educated farming community, school courses should be replaced by post-school vocational courses within the agricultural college system, and potential farmers should be encouraged to achieve the highest practical standard of general education.
Within the system of technical education are a variety of agricultural courses and subjects. Sheep and wool subjects, particularly wool classing, predominate. Most students study part time, and correspondence classes are available. There is a need for courses in farm mechanics and farm management accounting at country technical colleges. Closer co-operation between the technical colleges and the agricultural colleges is recommended, in particular to develop tertiary level courses in agricultural technology and diploma level courses in agricultural engineering.

Australian agricultural colleges are residential, with farms attached. In general they provide two or three year courses leading to a certificate or diploma. Originally established to train farmers, the majority of diplomates now enter other occupations. Apart from the specialist technology courses for the dairy, food and wine industries, the colleges do not provide different courses for potential farmers and career diplomates. Some are only interested in providing a near-university level of professional training.

Agricultural colleges should accept responsibility for the training of future farmers; colleges near country technical colleges could continue to train agricultural technologists, and those in more isolated areas could emphasise farming. A greater diversity of courses is needed to meet the varying needs and abilities of potential farmers. The greatest need appears to be for the rapid development of twelve month courses based primarily on the training needs of farmers' sons, who form the large proportion of potential farmers. There should be some specialization according to region and industry.

Australian universities are with few exceptions located in the cities, and are largely non-residential. There is no Australian university or degree-granting institution with a specific orientation towards agriculture. The agricultural courses offered by the universities are oriented towards agricultural science research, rather than production or management, and are not designed for potential farmers. Six per cent of agricultural graduates enter farming, 0.5 per cent enter agricultural extension, and 32 per cent enter research; two-thirds are in government employment.

The universities do not cater adequately for horticulture, dairying, conservation, and the business of agriculture. It is recommended that the universities
co-operate to meet these needs. A more balanced
course in the business and science of farm production
would attract more farmers than do the existing courses.

Continuing education and refresher training is al-
ready formally organized for veterinary science graduates,
but not for agricultural graduates. It is recommended
that the federal Department of Primary Industry accept
national responsibility for the organization of this
training, in close association with the universities.

The only formal courses of training for agricul-
tural extension work are a post-graduate diploma at the
University of Queensland and a recently introduced course
at the University of Melbourne, but only a minority take
these. Short in-service courses have been provided
elsewhere in recent years. An institute of agricu-
lultural extension is needed at an appropriate university
to act as the focal point for the development of pro-
fessional extension training, research and evaluation,
concentrating available staff and resources for the
benefit of all states. This should be financed by the
Commonwealth Government.

It is estimated that for each of the five years
from 1965 to 1969, 351 graduates (ex-universities) and
530 new diplomates (ex-agricultural colleges) will be
needed. In 1963 there were 173 new graduates and 287
new diplomates. Thus there is a large gap between the
demand and the numbers supplied by existing facilities.
At least two new faculties in agriculture should be
established.

Abstract prepared by the Australian Council for Educa-
tional Research, Melbourne.
This report was prepared by the Australian Council for Educational Research at the request of the Australian College of Education, and is an account of some differences between the Australian states in practices and organisation in education. It is intended to point to problems which may confront the increasing numbers of students who transfer from one state to another during their primary or secondary schooling.

Each of the six state governments is responsible for education within its own territory. The systems of education which have developed are broadly similar, but there are many variations in practice. Some of these directly concern students moving between states. These include: the length and nature of school programmes; the kinds of educational institutions; the age of admission to school; promotion policies; the points of transition between different levels of education; and the types of examination at different points. On the whole, the independent schools follow the pattern of the state systems in these matters.

The most common type of pre-school institution in each state is the kindergarten, which caters for children of from three to five years of age. Attendance is not compulsory, and many children receive no pre-school education. Only in Tasmania and Western Australia does the State Department of Education exercise any degree of direct control over kindergartens; in the other states most kindergartens are private institutions or run by church or local groups.
In all states, children are required by law to attend school once they reach the age of six, but the minimum age of entry allowable at the beginning of the school year varies from four years seven months to five years one month. In four states, the primary school contains seven grades; in the others there are only six, although many children spend two years in grade one, which may include a preparatory section. Promotion in the primary school tends increasingly to be based on the age and social development of the child, rather than his reaching a prescribed standard of attainment in school subjects. South Australia still awards a progress certificate at the end of grade seven, based on an internal examination, but in practice almost all children obtain it.

The transfer from primary to secondary education within the state system usually involves a change of school. Some state primary schools, particularly in rural areas, provide the first few years of the secondary course. Non-government (independent and fee-paying) schools often provide full primary and secondary education within the same school. The average age of students transferring from primary to secondary education differs from state to state, falling between twelve years three months in Victoria, and thirteen years one month in South Australia. Very few state secondary schools are selective; but parental choice is limited by zoning and residential requirements except in Queensland.

No rigid distinctions can be drawn between the types of secondary schools, with the exception of agricultural high schools, and the extensive system of technical education in Victoria which begins at the secondary level. The principal differences to be found are in the length of the course offered, the relative emphasis placed on academic work and technical or commercial courses, and whether the school is single-sex or co-educational. High schools with courses leading to university matriculation are multilateral in that they also offer commercial and technical subjects. Those with shorter courses give more emphasis to pre-vocational training in some cases, but in others the shorter course is only the consequence of small numbers. It is possible for their students to go on to qualify for tertiary education at another school.

In general, the first stage of secondary education is defined by the award of a certificate based on an examination taken internally or externally at the end
of the third or fourth year in the secondary school (usually the tenth year of schooling). Only a minority continue past this point. During this stage there is considerable "streaming" in the multilateral high school. The more able students work together for all subjects, taking mathematics and foreign languages, the remainder substitute commercial or technical studies for one or both of these. New South Wales is the exception; the fixed "streams" have been replaced by a more flexible system in which individual subjects can be taken at one of three levels according to ability in that subject alone.

During the last two years of secondary schooling, the influence of university requirements results in considerable uniformity of approach and curriculum within and between the states. Although the actual matriculation requirements vary widely from state to state, all Australian universities recognize the others' qualifying examination. Recent developments have resulted in close agreement between the states as to the total length of schooling to be completed before university entrance. This is now twelve years, except in Tasmania, where the matriculation examination comes at the end of the eleventh grade. However, increasing numbers of Tasmanian students are choosing to defer completion of the examination until the end of the twelfth grade.
The draft of the new programmes for the primary school and the primary grades of the eight-year schools and secondary schools is intended to cover a three-year course of studies, the study of systematic courses, such as the Russian language and arithmetic, being undertaken by pupils promoted to the fourth grade. The feasibility of such an organisational reform of primary education was confirmed by a number of experimental investigations conducted over a period of seven years. The changes introduced in this connexion into the content of primary education were determined by the following basic provisions.

The primary Russian language course is regarded as an organic part of the entire Russian language course at the eight-year school. Such courses as phonetics and morphology figure in the draft programme for grades I - III as the first stage in the studies of the appropriate sections of the systematic mathematics course and Russian language course in grades IV - VII. In the first three grades, the pupils are introduced to all the basic aspects of the language such as phonetic and lexical phenomena, morphological word structure and parts of speech. But only the most essential elements of this subject are included in the primary education programme. The programme is not supposed to burden children with the intricacies of the language or spelling which are exceptions to the general rule, or of exclusively theoretical significance, or are difficult to grasp at this stage of instruction. Only that information which can be clearly understood and assimilated by children will be
considered useful for the children's intellectual development, as well as for the development of their speech habits. In addition to grammar, spelling and punctuation, the new programme provides for the familiarization of the pupils with the rich vocabulary of the Russian language. Lexical exercises take up more space in the new programme than in the current one. The reading course takes into consideration not only cognitive but also affective aims. It is intended to promote in children the spirit of communism and to inculcate in them rudiments of communist world outlook. The aesthetic side of education also receives special attention.

In the elementary mathematics courses, the programme material is re-distributed over grades and complemented with new themes related to the children's mathematical development. The arithmetic of natural numbers is the pivot of the course. A deeper notion of the number is provided. The children are familiarized with the names of the components of arithmetical operations. In the third grade, the programme provides for the study of the changes in the results of addition, subtraction, multiplication and division in connection with the changes in the components. Numerical formulae are introduced in the solution of problems. The pupils will have to find the unknown component of arithmetical operations using a numerical formula. In the third grade much attention will be paid to the study of various magnitudes (time, mass, weight, value and price, distance and speed, etc.) Great importance is attached to the study of the direct and inverse proportions and also the results of operations with changing components. The draft programme gives more importance to geometry. It provides for the teaching of the elementary principles of the square, the rectangle and the triangle. In the third grade the pupils are introduced to the circle and circumference, and to the calculation of the area of the square and the rectangle.

The teaching of natural history, which in the draft programme is singled out as an individual subject from the first grade onwards, plays an important role in fulfilling the cognitive and affective aims of primary education. Being a natural science subject, natural history creates broad possibilities for the thinking activities of the school children by its various forms and methods. Systematic observations of, and experiments on, plant and animal life, excursions, the use of maps at school and in the field, and independent work
in the study of literature and other sources of knowledge promote the pupils' power of observation, arouse their spirit of curiosity and enquiry, and enable them to make objective analyses, comparisons, and conclusions. The development of these qualities is moreover accompanied by a corresponding enrichment of the pupils' natural science vocabulary.

At the same time, the teaching of natural science makes it possible to apply consistently and broadly the local studies principle. This implies that the first- graders study nature around their school and the work carried out by the people living next door to them; the second-graders study nature and the work of the people living in their district; third-graders study nature and the work of the region which incorporates their district and their town or village. For a deeper understanding of the peculiarities of local nature the pupils compare it to the nature of various zones of the Soviet Union. The realization of the local studies principle in the content of natural history raises the level of knowledge and inculcates in the pupils the love for local nature. Natural history is the first link in systematic natural science education. The content of the material studied at this level of education concerns such basic notions as water, air, useful minerals, soil, plants, animals, man, and the seasons of the year.

As regards the labour polytechnical education of junior-graders the draft programme provides for the learning of the general properties and classification of processed materials and of their significance in everyday life; it, moreover, takes into consideration the necessity of familiarizing the pupils with the particular tools and techniques of these materials and with the specific characteristics of the work undertaken by the various technical professions. The programme also emphasizes the polytechnical character of the skills and habits acquired by children in polytechnical training courses. Special attention is paid to the cultivation in children of general work traits such as planning and organizing work, self-appraisal, self-control, and the acquisition of elements of technical drawing.

The draft programmes are intended to cultivate the love of labour, zeal, the readiness to work, the formation of social motives of labour, and the ability to work in a team. Scientific investigations in the last few years and the experience acquired by teachers show that the appropriate organization of labour training and of
the content of the elementary school programme not only ensures the solution of the particular problems involved in labour training but also exerts an influence on the entire course of mental development, particularly the development of the technical know-how of the pupils, and the shaping of the social motives of each child's labour activities and group behaviour.

The new primary school programmes have been drafted following the recommendations of a commission composed of research associates, method specialists and teachers. These recommendations support the idea of the three-year elementary educational system and the introduction of systematic courses (the Russian language and mathematics) from the IVth grade onwards. The draft also reiterates the conclusions of the commission on the raising of the theoretical level of elementary education by relating it more closely to the subsequent systematic courses of the Russian language and mathematics.
The Decision of the CC and the Council of Ministers of the USSR stipulates, in particular, that the physical culture movement should be of a genuinely national character, carefully integrated in a scientifically organized system of physical training and adapted to every age-group in the population. Physical training of the young will henceforth take place principally in the general educational and professional technical schools. Increased allocations are called for to permit broadening of sport activities in school and to ensure availability of necessary equipment. The improvement in facilities for sports and physical culture is to be accompanied by the creation, over the next two to three years, of physical training programmes in general educational and specialized secondary schools with each of the village 4/7-year schools having its own full-time instructor who, besides leading physical training classes, will be expected to conduct out-of-school sports activities. All schools are to have at least two physical training periods a week.

Public education authorities are to promote development of larger scale sports activities where possible and to organize physical culture classes taking into account the physical capabilities of individual students and finally to collaborate with the Ministries of Health of the Union Republics in reviewing the results of physical training programmes on an annual basis.

Higher and secondary specialised educational establishments are expected to provide students with the
opportunity and facilities for regular physical training and sport sessions and for extra-curricular sport activities. It is also hoped that students will themselves participate in the construction of sports installations once arrangements are made to ensure that educational establishments receive the necessary building materials and equipment. New educational establishments will, in principle, be commissioned complete with the sports installations provided for them.

Emphasis is laid, in the Decision, on securing better use of existing sports installations and, during the day, installations, equipment and stock will from now on be placed at the disposal of schools and technicums free. Colleges are also to be permitted reduced rates.

Measures to improve the qualifications of physical culture and sports specialists are also called for and in this connexion the existing educational establishments are to be expanded and higher and secondary specialized sports educational establishments, faculties, departments and consultation points are to be set up with a number of teachers' colleges and universities organizing the training of PT instructors for understaffed schools. A system of short-term refresher courses for instructors and coaches is also to be inaugurated.

The USSR Academy of Sciences, the USSR Academy of Medical Sciences and the USSR Academy of Pedagogical Sciences will work together to find solutions for the many important sociological, pedagogical, psychological, and organizational problems arising out of the introduction of a physical culture movement on a grand scale.

The party, government, trade union, Komsomol, physical culture and economic organizations have a shared responsibility in seeing that physical culture and sport are introduced in each enterprise and office in order to secure increased labour productivity, reduce risk of serious illness and guarantee workers and peasants every possibility of rest and recreation.

Greater attention is to be devoted to the role of physical culture and sport in rural surroundings and local authorities are expected to encourage and develop the construction in collective farms, state farms and regional centres, of sport fields, stadiums and other installations, village clubs to be built for the most part complete with gymnasia and sports grounds.
The Decision also examines the role of the Soviet of the Working People's Deputies in the development of sport and physical culture programmes among working people and students. It is hoped to build new sports centres and to convert existing ones so that facilities for large-scale group activities are available in each district and neighbourhood.

The USSR State Building Administration together with the All-Union Central Council of Trade Unions, the Central Council of the Union of the USSR Sports Societies and Organizations, and the Central Committee of the Voluntary Society for the Promotion of the Soviet Army, Air Force and Navy, will estimate the number and kind of sports installations called for by progress in urban development and reconstruction. An attempt will also be made to standardize methods and design in setting up sports centres. It is hoped, in addition, that the outfitting and commissioning of sports installations in neighbourhood units and housing developments can be carried out at the same time as tenants begin moving into their new flats.

To develop the production of sports goods and improve their quality and to promote sales the USSR State Planning Committee, the Councils of Ministers of the Union Republics and the appropriate ministries and departments are taking steps to ensure the broadening of production and higher standards in sports and hiking gear, clothes and footwear. Specialized sports goods shops are to be extended and efforts are being made to improve the quality of sports materials principally through the All-Union Designing and Experimental Designing Institute of Sports and Hiking Goods.

The CPSU Central Committee and the USSR Council of Ministers intend to further develop physical culture and sports by ensuring a broader collaboration between trade unions and Komsomol organizations, and those participating in sports and physical culture activities.
This book has been prepared by a body of research associates at the Institute of Psychology of the USSR Academy of Pedagogical Sciences. It contains the results of many years of experimental research aimed at ascertaining the intellectual ability of pupils in the junior grades to assimilate theoretical knowledge. In the last few decades educators and psychologists in the developed countries have been seeking ways of increasing the volume and raising the level of knowledge imparted to children at every stage of schooling. Particular attention has been devoted to the study of intellectual ability in the junior grades. A practical need has arisen for a substantial change in the content and methods of instruction in these grades because primary school curricula and methods no longer satisfy the requirements of compulsory eight-year education.

There is an obvious need for the expansion and deepening of theoretical knowledge acquired by junior pupils. However, there is widespread belief that they are too young to assimilate fully the theoretical content of school courses, that they can grasp only pragmatic concepts. Such a view impedes research on the real cognitive abilities of children aged 7 to 10, and prevents the practical development of their intelligence.

A group of psychologists under the direction of Professor D.B. Elkonin, organized and conducted experimental classes in the junior grades in the following subjects: Russian language, mathematics and labour, all of which put a much greater emphasis on theory than
do other school subjects. Experimental programmes were introduced in 1959 in grades I – IV of School No. 91 (Moscow), School No. II (Tula) and the village school of Mednoye (Kalinin Region).

Chapter I (by D.B. Elkonin) analyses the problem of the "age peculiarities" of children. The author concludes that the cognitive abilities of the children within the age-group examined are directly related to the type and content of the knowledge they assimilate. By changing this content in a certain way, it is possible to cultivate in children certain peculiarities of thinking that are not observed under regular classroom conditions.

Chapter II (by V.V. Davydov and G.I. Minskaya) sets forth theoretical and experimental data demonstrating the ability of first graders to assimilate a mathematics course which includes elements of algebra, the general form of expressing relations between magnitudes, etc. Psychological data is then given supporting substantial revision of the traditional programme. The rest of the chapter gives in detail the organization of the activities which will permit first graders to assimilate fully the content and meaning of such complex notions as "equality", "inequality", "properties of equality and inequality", "transitivity", etc. The study of these notions was conducted on the basis of the familiarization with formulas written down in letters (a – a; a, etc.). Having familiarized themselves with magnitudes, the pupils can successfully study the "number" as a special form of representing the inter-magnitude ratio. Already in the first grade pupils will be introduced to numerical order and to the method of forming a numerical sequence on the a + 1 principle. Once these concepts are learned it will be possible to introduce negative numbers, fractions and coordinates in grades II – IV.

Chapter III (by L.I. Aidarova and A.K. Markova) is devoted to teaching the basic notions of the Russian language (morphology and syntax) to second and third graders. In regular classroom instruction junior school children are not given a theoretical analysis of the basic principles underlying the relation between the form and meaning of words. The pupils studying in the experimental classes acquired this knowledge thereby deepening their notion of the language and had a most positive effect on their general speech development. This proved to be a good preparation for the systematic teaching of the Russian language which normally begins...
in grade V. The success of the experimental programme in the junior grades shows that traditional educational psychology belittles the cognitive ability of children aged 7 - 11 in languages, just as in mathematics.

Chapter IV (by E.A. Ferapontova) describes an interesting experiment involving first graders' ability to carry out assignments. These first graders were taught to use simple plans by special instructional charts describing the order and method of carrying out the labour operations involved. This experiment showed that, given appropriate methods of instruction, children successfully analyse rather complex spatial forms, can read the appropriate plans and can cope with assignments demanding the use of these plans in making things out of paper and wood.

In the course of the experimental classes the following question arose: does cognitive learning of theoretical knowledge influence the general level of the pupils' thinking? To answer this question, a special comparative study was undertaken in experimental grades I - IV and in the respective grades following the regular school curricula. The results of this investigation are reported in Chapter V (by Y.A. Ponomaryov). Results obtained in the course of this investigation convincingly testify to the fact that systematic cognitive learning of theoretical knowledge leads to a more intense development of such vital intellectual functions as analysis, ability to generalize and to draw analogies. In the level and quality of these functions the pupils of the experimental classes were far superior to those studying under the regular curricula.

The results of the investigations are of serious importance both for the theory of elementary training and for the practical revision of the programme, with a view to increasing the theoretical content of courses.

Abstract prepared by V.V. Davydov, M.Sc. (Pedagogy), Institute of Psychology, USSR Academy of Pedagogical Sciences, Moscow.
The book deals with certain problems of modern teaching techniques, general ones on the one hand and algorithms on the other, viewed from the point of mathematical logic, information theory, psychology, and didactics. The concept of teaching is based on a variety of control processes. Following the teacher's instructions, pupils use the schemes given to them and answer a number of questions on the basis of alternatives (yes or no). This method, therefore, uses the sum of the schemes required to perform a number of logical operations, with the help of which it is possible to reach certain conclusions.

The book is divided into two main parts - theory and experimental research. The theory section includes the following topics: algorithms and the control process, the theory of instructing pupils in algorithms, logical and psychological problems of constructing algorithms for identification, and mathematical methods of construction and evaluation of algorithms for identification. Topics in the experimental research part include the following: organization of experimental teaching and research, and results of experimental instruction and research.

It is pointed out that modern teaching pays a great deal of attention to increasing the pupils' knowledge by introducing them to general regular reasoning techniques. There is an insight into the two ways of instructing pupils in algorithms and of involving algorithmic processes to pass on ready-made algorithms.
to pupils or else to enable them (under the teacher's direction) to construct algorithms themselves.

The book's experimental section is concerned with the aim, design and outcome of an experiment in instructing students in general analytical techniques (algorithms) and problem-solving techniques (with the grammar of their native language as the source material). The teaching experiment was carried out in the VI and VII classes in Moscow schools. There were 6 experimental classes and 22 ordinary classes. These latter classes received a normal course of instruction. The fact that the process of grammatical problem-solving was broken down into a system of unit operations, made it possible to shape out mental processes step by step. For this purpose a special exercise-book for independent work and a teaching machine "Repetitor-I" were designed to teach algorithms. The basis of this teaching involved not only control over the outcome of a mental effort, but also necessary step by step control over the very course of the mental activity. The analysis of the results revealed that the experimental teaching reduced the number of mistakes made by pupils as against those made by their fellows in the ordinary classes.

The findings of the experiment suggest that at the present time there are possibilities of discovering and constructing fairly general techniques of thinking not only for particular subjects in the school curriculum but also for various subject-matter areas.
The CPSU Programme, adopted at the twenty-second Party Congress determined the tasks for the further development of public education as follows:

(a) the implementation of universal secondary education for all school-age children and eight-year schooling for working youth not receiving such education.

(b) the further development of the network of pre-school establishments, boarding schools and day boarding schools.

(c) the development of conditions which will ensure a high level of education and upbringing for the growing generation. For this purpose it is planned to carry out an extensive programme for the construction of schools and other educational establishments, and for setting up training workshops, physics, chemistry and other laboratories; provisions are made for the opening of new gymnasiums, for building new sport centres, for promoting children's artistic and technical activities. Wide use will be made of such media as radio, films and television.

(d) the further development of the secondary and higher specialized education.

In 1964, as a result of the experience acquired in the course of school reorganization, it became possible to evaluate the changes instituted and to make the necessary amendments. In August 1964, a resolution was adopted to shorten the term of study at secondary school in order to provide a more rational organization of the pupils' labour training without affecting the level of general education. In 1964-65 the general secondary school changed over to the ten-year term of studies.
The resolution of the CPSU Central Committee and the USSR Council of Ministers "On the Measures for the Further Improvement of the General Secondary School" stresses that the Soviet school will continue to provide general labour and polytechnical education. Its chief task is to impart the essentials of the sciences, to inculcate high moral qualities, to prepare pupils for independent life and for the choice of a profession. The resolution points out that the most important task of the Party and government organs in the field of public education is to complete by 1970 the introduction of universal secondary education.

Great attention is paid to concrete measures for the improvement of the content of education, for ensuring that school work is based on consistent and scientific methods. Special stress is put on the need for bringing the content of education into conformity with the requirements of scientific, technical and cultural development; to ensuring continuity in the studies of the basic sciences; for a more rational distribution of studies over the years of labour training. The resolution establishes the maximum number of compulsory hours of courses a week (24 for grades I - IV, 30 for grades V - X) and provides for introducing optional courses from the 7th grade on.

To improve the polytechnical education for school children and to prepare them for socially useful work, the resolution enjoins the managers of enterprises, collective farms, state farms, construction projects and large public organizations to help schools organize pupils' labour training, and set up the necessary study and material basis for the latter. The resolution also recommends that vocational guidance work be carried out among children by familiarizing them with various fields of the national economy and culture, enterprises, collective farms, state farms and offices.

Grades IX - X (XI) of a number of secondary schools will be giving their pupils a more thorough theoretical and practical grounding in mathematics and computing techniques, in physics, in chemistry and chemical production processes, in biology and agrobiology and in the humanities.

The resolution outlines measures for the preparation of high-quality textbooks and study aids for pupils and teachers manuals. Special attention is paid to the problems of the inculcation of Communist morality, inter-
national friendship and solidarity of the world's peoples.

The secondary school staffs will include organizers of extra-mural educational work. These instructors will also discharge the functions of assistant school principals. Great attention is paid to the problems of the physical and aesthetic education of the pupils. Measures are outlined for the radical improvement of the educational information available to parents and the general public.

The resolution stresses the need for the improvement of the school's material and technical facilities. A number of concrete measures provide for the effective use of the budgetary allocations for the construction of new schools. It is planned to carry out a large-scale programme for the construction of rural schools along with homes for school teachers; eight-year and other secondary schools will be built along with boarding schools for pupils living in remote areas.

The resolution attaches importance to the improvement of school management, to the style and methods of work of the public education bodies. An important feature of this document is its great concern for the teacher, for his teaching qualifications, social prestige, and living conditions.

The resolution concludes with instructions to the USSR Ministry of Education to draw up rules for the general secondary school.

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Title: Postanovlenie: "Ob izmenenii sroka obuchenija v srednih obshchestrovotat'nyh trudovyh politechnicheskikh skolah s prizvodstvennym obucheniem". "O merah dal'nejshego uluchsheniya raboty srednej obshchestrovotatel'noj skoly".

Abstract prepared by M. Kondakov, Director of the Research Institute on the Theory and History of Pedagogy, Corresponding Member of the USSR Academy of Pedagogical Sciences.
This document examines the objective connexions which exist between the system of training and the course of general development of students and goes on to propose a more effective system of education than that in operation at the present time. The various contributors to this book have applied the pedagogical experimentation method of research which they have combined with the observation of the work of teachers who continued to use traditional methods of primary education.

The research makes an extensive use of experimental and psychological methods in studying the pupils' faculty of observation, thinking and practical (labour) activity. I.P. Pavlov's physiological teaching is the scientific basis of this research. Physiological methods help to investigate the changes in the neurodynamic processes of school children during the period of elementary training. The development of pupils attending the experimental grades is compared to that of their coevals trained in the traditional manner.

The experimental programme, text-books and methods of this new system of primary education, proposed in the document, are based on didactic principles. Here are the most important of them: teaching should be conducted at a high difficulty level, rapid headway is essential; major importance should be attached to the theoretical basis and systematic work should be carried on to enhance the development of all pupils, including the slowest learners. These principles are originally interconnected. By teaching at a high difficulty level is
meant difficulty which is connected with theoretical knowledge, that is with understanding of the phenomena and operations under study. It is also difficult to multiply multiciphered numbers or to learn the multiplication table by heart. However, in our experiment a difficulty of a cognitive nature is of primary importance, for example, grasping by the first-graders of a principal idea of the transference law of multiplication and understanding by third-graders of a monotone function. In training at a high difficulty level the degree of difficulty is taken into account. This is not achieved by reducing the difficulty but by selecting instructional material and methods which will enable the children to understand the problem. Otherwise, a pupil may involuntarily proceed along the line of learning by rote. In that case a high-level difficulty method will turn from a positive factor into a negative one.

What are the results of the experimental training on the basis of the above principles? If, early in the first grade of study, the observation power of pupils both at the experimental and ordinary grades is identical, pupils in the experimental grades do much better, in this respect, by the end of the second year of training. For instance, during the individual examination of an unknown stuffed bird, all first-graders generally pointed out the colour of the different parts of its body: 64 per cent of the comments made by the experimental grade pupils and 60 per cent of those by pupils in the ordinary grade dealt with the description of colour. The sum total of the comments made by pupils in the experimental grade concerning the properties of an object under observation increased by almost 100% between the end of the first year and the end of the second, as against 33 per cent for the ordinary graders. Still more significant are the differences in the content of the remarks. Only 36 per cent of the remarks made by the experimental grade pupils refer to the colour of the object, while 64 per cent deal with its shape and size, and with the dimensional proportions of the different parts of the body. Consequently, observation which was one-sided at the beginning of the primary educational course, is now becoming many-sided. Pupils in the ordinary grades primarily make remarks concerning the colour of the object (71 per cent of remarks) even at the end of the second year of study. They seem to be little concerned with the other properties of the object under observation. Although these school children notice the other aspects of the object,
the character of their observation remains just as one-sided as it was at the start.

Thinking has been studied with the help of assignments for the selection of specially-prepared geometrical bodies (cylinders, trihedral and hexahedral prisms, truncated trihedral pyramids and parallelepipeds) of different heights and colours. The pupil was expected to disclose the principle of a required selection and formulate it. At the beginning of the first year of training almost no one in the experimental and ordinary grades could solve the problems. By the end of the second year of training 60 per cent of the pupils in the experimental grade made considerable headway towards fulfilling their assignments; only 11 per cent of pupils attending ordinary grades could achieve the same level.

Analogous differences have been discovered when pupils were given an assignment to make an object according to a pattern. They had to make a small box out of cardboard (they had not had such an assignment before). Prior to getting down to making the box a pupil had to draw up a plan of his work, i.e. to indicate which operations and in what succession he was going to do the work. If the pupils in the second experimental grade were able, in most cases, to plan the work they had to do, their coevals from the ordinary second grade failed to outline a full plan of their assignment. In making the box all the pupils in the experimental grade acted in the same way while only one-fourth of their coevals in the ordinary grade were doing the necessary operations correctly.

The pupils in the experimental grade have made great headway in the field of neurodynamic processes. A considerable improvement has taken place in the function of internal cortical inhibition and of restraining and releasing nervous processes. This can be seen in the repression of the formerly widespread irritatory process: in the reduction of inhibition reflexes, in the establishment of gradual conditioned-reflex motor responses, and in a better concentration of the inhibition process.

These facts testify to a considerable progress in the development of pupils attending the experimental grades who work according to a system differing from that employed in ordinary grades. At the same time, versatility in the development of pupils in the experimental grades has become quite obvious: their power of
observation, thinking and their ability for practical activities have improved considerably. This all goes to show the efficiency of the new didactic system of primary training promoting the general development of school children.

The authors suggest that as soon as possible the above principles be applied to the next stage of school education, the 5th - 8th grades. The new system of teaching calls for greater attention to the problems of upbringing, since the organic connexion between teaching and upbringing is essential for general development of school children. Thus, prospects are opening up for more extensive research into the objective ties between the arrangement of the teaching process and the development of school children as well as prospects for a considerable improvement of the school system.
The purpose of the book is to elucidate the connexion between the development of pupils and their assimilation of knowledge and habits in the experimental grades of the new system of primary schooling set up under the direction of Professor L.V. Zankov. Various methods of investigation were used: observation during lessons, analysis of written tests, individual talks with pupils, experimental psychological methods.

A comparison is drawn between the progress made by Igor L., one of the most capable pupils of the experimental grade, and his assimilation of knowledge and habits in the course of the first two years of his studies. The considerable progress made by Igor L. during this period of his development served as a basis for the independent generalizations of knowledge in grammar, of the differentiation between and comparison of individual items of information, and a free operation of grammatical notions. The connexion between the development and assimilation of the Russian language material is supported by the ratio between the time periods in the course of Igor L.'s development and in the mastering of orthography. Igor registered intensive and rapid progress in the course of the first two years of training. In the third year the number of errors in his spelling tests and compositions dropped sharply (from 4.7 to 2.8 errors in each 100 words.)

Nine F., one of the slowest learners of the experimental grade, did worse than Igor L. in the assimilation of knowledge and habits, but she, too, coped with the study
programme. The facts testifying to Nina's substantial progress in the assimilation of knowledge are of major importance because this girl is a typical representative of the slow learning junior graders. Under the conventional study conditions such pupils lag more and more behind the class. Under the new system Nina F. made a substantial headway in her development and this became an important condition of a good assimilation of knowledge and habits.

The reproduction of a complex and long text in history revealed that the pupils of the experimental class grasped its content and understood the logical connexions between its parts. The brief exposition of the content was combined with the preservation of the original's sense structure. Reproduced by pupils after two weeks without repeated reading, the text retained the logical ties between its parts.

The mastering of singing habits and elementary music knowledge was also notable for its high quality and was far ahead of the assimilation of music habits in the ordinary classes. The result achieved in the experimental class is of basic importance since the poor assimilation of singing habits by certain pupils is usually explained by the fact that they have no ear for music. The effectiveness of instruction in the experimental class is due to the systematic work carried out on both the general and the musical development of all pupils in the class.

The success achieved in the general development of the junior graders in the process of studies according to the new system makes for a high quality of knowledge and habit assimilation in various subjects. In the framework of these general achievements there are considerable individual differences in development and knowledge assimilation.
This publication outlines the objectives and problems of vocational education in the U.A.R. within the framework of recent developments in the social, economic and political life of the country. The data presented includes both the general objectives of vocational education and the specific goals of each type.

The role of vocational education in the development of the country, as summarized in the preface of the document, is to prepare a new generation of youth fully conscious of the value of technical and vocational work as a means to social progress; to prepare and train the manpower needed for the development projects which aim at raising the standard of living.

The Ministry of Education plays an important role in the achievement of these goals by promoting the national system of vocational education through developing its laws, emphasizing practical training alongside with general culture, revising and modifying syllabi and curricula, and providing adequate equipment and facilities and proper training of qualified teachers.

The document then proceeds to enumerate the general objectives of vocational education as follows: physical development of students to meet the needs of growth and the characteristic requirements of adolescence; mental development by training the students to think on sound scientific bases, to make good use of experience in solving present and future problems and to enrich their knowledge by reading; social and behavioral development...
through co-operative work, the application of the principles of freedom and democracy in school life, and the development of human relations and leadership; spiritual development through adequate aesthetic and religious education; propagating the concepts of Arab nationalism and the spirit of national consciousness; promoting the idea of Afro-Asian solidarity; discouraging all forms of racial discrimination; preparing the students for active citizenship in a socialist society; training the students to participate in the service of their country.

The specific aims of each type of vocational education are summed up as follows.

Secondary commercial education aims mainly at providing students with adequate training for work in private enterprises, firms, co-operatives and similar establishments. Among the major subjects are the Arabic language, foreign languages, terminology, specific commercial and economic subjects.

Secondary agricultural education aims at training students to undertake agricultural activities on the basis of sound techniques, to assume the responsibilities of limited agricultural projects, and to meet the demand of public and private enterprises for skilled manpower at this level. The work experience areas emphasized in this connexion comprise: agricultural production, reclamation of land, insecticides, food industries, animal and bee breeding, farm management and mechanization.

Secondary industrial education aims at preparing the skilled manpower for the industrial sector by providing their students with the basic techniques of modern industry, principles of work supervision, general, scientific and cultural education. Annexed to the chapter on industrial education are several illustrative tables specifying the different levels of practical skills emphasized by the various sections of the industrial schools.

Abstract prepared by the Documentation and Research Centre for Education, Cairo
The main factors which have governed the educational policy of the U.A.R. up to recent times have been the necessity of preparing pupils for the next level of education and more especially, of providing the civil service with trained personnel. A new policy is now being applied whose general aim is to create enlightened citizens, capable of participating, within the limits of their aptitudes and degree of maturity, in the economic, social, and political evolution of the new society. This report, which was prepared by a panel of experts in educational planning, outlines the objectives of the new system of education and elaborates upon the developing functions of schools.

The first chapter outlines the national and educational objectives. The former are aimed at achieving social justice and equality of opportunity, raising the production and living standards, maintaining national sovereignty and internal stability, and ensuring the contribution of the U.A.R. to the international field. The educational objectives are:

- to combine education and instruction in one framework, so as to ensure integrated development of citizens;
- to emphasize the interaction between the individual and his environment, and develop the sense of loyalty to his community, and the ability of effective participation in the service of society;
- to develop respect for manual labour and to emphasize the quantitative aspects of technical education, as the cornerstone of production;
to develop higher education along such lines as to ensure the training of competent personnel in the various sectors;
to keep abreast of international developments in the fields of science, arts and literature, and to make use of innovations in all fields;
to enhance cultural co-operation with the Arab, African and Asian countries, as well as with all friendly countries of the world.

Chapter 2 defines the objectives of the primary school as follows:

to provide the pupils with the type of education which suits their level of growth and maturity and ensures the integrated development of all aspects of the personality;
to enable them, after an adequate period of training, to participate in practical life, or to continue their education;
to prepare the pupils for good citizenship in a socialist society;
to develop respect for manual labour, interest in the acquisition of technical skills and ability to take part in the promotion of local community;
to encourage sound interaction between school and community.

Certain points are emphasized in curricula and teaching practice such as the integration of experiences, the participation of workers in the drafting of curricula, increased attention to methods of teaching reading and writing, the role of the class-teacher, extra-curricular activities, audio-visual media, textbooks, practical orientation of instruction.

Chapter 3 is devoted to the preparatory (intermediate) schools. It deals with the history of this type of school which started as a four-year school in 1953, accessible to pupils who had completed the fourth grade of their primary schooling and had passed an entrance examination. In 1957 the status of the school was revised: it was defined as a three-year school accessible to the six-year primary school leavers, its aim was to identify and foster the special aptitudes and talents of its pupils for purposes of better further orientation. At first, preparatory education was diversified and included both general and technical (industrial, agricultural and commercial) preparatory schools. Following the recommendation of the Higher Planning Committee for Education in 1963, it was decided
to unify this type of school into what is called the "modern preparatory school", which combined cultural disciplines with practical subjects. The subsequent expansion of preparatory education with a view to extending compulsory schooling to this stage is foreseen. The chapter concludes with a discussion on the role of the preparatory school in the establishment of social values and the strengthening of the natural bond between the school and community.

Chapter 4 deals with the general secondary schools. The students enrolled in these establishments are selected from among the general preparatory school leavers, aged between 14 and 17 years. The duration of study is three years. After the first year, the student may choose between two sections of specialized study, viz. the science and the literary sections. Hitherto, the general secondary school system had provided for a five-year course of studies divided into two stages: a four-year course leading to the secondary school certificate (general section), followed by another year to obtain the secondary school certificate (special section). This fifth year provided for study in three branches: literature, mathematics and science, language study being included in all sections. As to the curricula and plans of study of the general secondary schools, new subjects were introduced to conform with the new trends of educational policy. These new subjects comprise: natural science, as being essential for the modern world; work experience activities (vocational culture in experimental schools), with a view to training the pupils to participate more actively in the establishment and development of the new socialist society; sociology, economy, geology and surveying (in the literary section) to give the students a background of scientific culture, so that they may appreciate the new economic and social trends in the U.A.R. and in the world at large.

Chapter 5 defines the responsibilities of teacher training schools as follows:

- to prepare primary school teachers for teaching with efficiency;
- to provide primary school pupils, especially in the rural areas, with enlightened teachers, capable of raising their cultural and social standard of living, as well as that of their parents;
- to act as centres for the educational development of the local community, and to take an active part in the solution of communal problems.
The document discusses the development of the teacher training schools and their plans of study. Emphasis is laid upon the study of the general principles of education, of the Arabic language, and of those subjects the teachers will specialize in after graduation. Facilities are offered for the pursuit of practical activities and hobbies. Finally, this type of school is responsible for the training of teachers of specific subjects in the fifth and sixth grades of primary schools. It also has its part in preparing teachers for the special education (handicapped) schools. These teachers are usually selected from among the best teachers of the primary stage. The careful selection of the teaching personnel for the teacher training schools is also emphasized.
### Bibliographical data

**Ministry of Education. Technical Planning Secretariat.**

*Mashru’ al-dirāsāt al-taknīliyāh lil-muntahān min al-marhalah al-ibtidāiyah.*


### Translation

A project of further education for primary school leavers.

### Keywords

- United Arab Republic
- post-primary education
- industrial education
- agricultural education
- vocational education
- aims
- curriculum
- finance
- practical instruction
- evening classes
- pilot experiment

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This document is divided into three parts: (a) a project for the further education of pupils who have completed their primary schooling; (b) curricula of work experience activities to be covered by these studies; (c) curricula of cultural subjects.

The proposed project is planned especially for primary school leavers who have had the opportunity of passing on to the next educational stage and are in need of preparation for some sort of productive work. Through the development of adequate skills required for the different work experience areas in the community, it is aimed to help pupils to earn their living and raise their standard of life. The proposed studies, furthermore, are designed to provide a general culture necessary for enlightened citizenship.

The project implies the following specific objectives:

(a) to acquaint the primary school leavers with the various work opportunities in the community;
(b) to stimulate their enthusiasm for voluntary work as means of material benefit and personal welfare;
(c) to develop their respect for manual labour;
(d) to prepare them for further vocational training.

The course of study is to be carried out along two lines: (a) 75 per cent of the time-table is to be devoted to training at centres and will consist in developing the pupils' skills in the crafts needed in the community, as well as providing them with the scientific and technical elements of simple industrial, agricultural and commercial work, together with the necessary pro-
portion of cultural subjects; (b) the remaining 25 per cent of the course will be carried out in the local vocational establishments where the pupils are given simple and continuous field training.

The work inside the training centre is to be run in evening classes for four hours each evening, so that the pupils may be able to do some work in the morning in paid jobs. Field training will be for six months daily. The trainees may receive some pay during this period. The course is so flexible as to be easily adapted to the pupils' abilities and aptitudes, and thus provides a suitable range of craft selection. Enrolment in the course is open to pupils at any time of the year.

Thirty-one work experience areas are listed. They comprise agricultural, industrial (wood and metal workshops) and domestic crafts. Cultural subjects include: the Arabic language, religious education and arithmetic.

Two appendices are annexed to the report dealing with facilities for financing the project and the final report on the results of a pilot experiment at the end of 1964/65.
This publication is an official presentation of the steps to be undertaken to develop industrial education so as to keep it abreast of the changes introduced by socialist economic planning in the U.A.R. It is divided into eight sections dealing with the following aspects of development: (a) technical education; (b) study plans and curricula; (c) equipment; (d) teacher training; (e) student training in factories; (f) the relationship between industrial schools and the community; (g) the role of industrial schools in production; and (h) the follow-up of graduates.

The report starts with a general description of industrial education before the 1952 revolution and goes on to illustrate the necessity of developing this type of education in order to keep abreast of the fundamental changes which have taken place in the new society.

The curricula of industrial schools are to include such subjects as: science, pure mathematics, labour legislation, industrial hygiene and safety, history and geography.

The enrolment of students is to be open to both sexes. Vocational studies for workers in the school vicinity are to be organized to enable them to get acquainted with the recent developments in the various crafts. A certain number of graduates from the industrial schools are to be selected, after having undergone the requisite pedagogical training, to teach in these establishments.
are to be made accessible to outstanding graduates of these schools. Moreover, various measures are envisaged for the provision of adequate premises and sufficient equipment so that industrial schools may be able to cater for both the educational and the social needs of the students.

Candidates for the teaching profession in industrial schools are required to possess the following academic qualifications: (a) a higher degree in education in the case of teachers of cultural subjects; (b) a B.Sc. from the Faculty of Engineering or the Faculty of Applied Arts in the case of teachers of technical subjects; (c) a diploma of secondary industrial education for teaching subjects dealing with practical activities.

The report also deals with the organization and implementation of the in-service training of the teaching personnel in industrial schools. Long-term and short-term training courses, either in industrial plants or training centers, are organized during the school year or the summer vacation to acquaint the teachers with the most recent changes in technological development. Missions abroad for teachers and fellowships to advanced industrialized countries are considered an effective means of training. The exchange of engineers, technicians and industrial schools teachers between schools and factories is encouraged for the purpose of diffusing technical experience, linking the school with the factory, and unifying methods of production.

Emphasis is laid upon the relationship between the industrial schools and the community in as much as the establishment of socialist society presupposes the mutual cooperation of the different elements which compose it. Accordingly, the new industrial school is to represent more than an educational establishment or a centre of vocational training, it is to partake actively in the economic production of the country.

The Ministry of Education proposes to follow-up graduates from the industrial schools in their new jobs so as to evaluate their professional efficiency. This evaluation will no doubt contribute to the development of industrial education along sound and realistic lines.

Four tables are appended illustrating: (a) the quantitative development of schools, classes and pupils during the period from 1952/53 to 1963/64; (b) the
quantitative development of school personnel; (c) the development of the budget allotted to industrial education during the period 1960/61 to 1964/65; (d) coordination of the various crafts among the governorates.
The publication is concerned with the recent developments in agricultural education which resulted from the application of socialist principles in the various sectors of life in the U.A.R. The preface discusses the present conditions of vocational education and the essential role it can play in the development of the country. It also presents the efforts of the Ministry of Education to develop further this type of education. This is followed by an outline of the history of agricultural education in the country since the first school of agriculture was established in 1829. The document proceeds to deal with the developments that took place after the revolution of 23 July 1952 and the major changes which were introduced in agricultural education. The structure of agricultural education was organized according to the provisions of the new law No. 262 enacted in 1956 and its subsequent amendments.

New syllabi were set up to provide the students with adequate training in the various fields of agriculture and including general culture. Certain vocational subjects were emphasized, such as agricultural economy, cooperation and agricultural engineering; 45 per cent of the time-table is devoted to practical training. A certain amount of flexibility was allowed for in the syllabi so as to be easily adaptable to the various needs of the community. Among the major subjects are: religious education, Arabic language, foreign languages, social studies, agriculture, gardening, biology, physics, chemistry, apiculture and animal husbandry, food industries, dairy, phytopathology, safety hygiene, physical
education, pre-military training.

Curricula were replanned so as to reflect the new aims of education, as well as the specific aims of agricultural education in its developed form and to reinforce the bond between this type of education and the actual requirements of the community.

Special attention was given to the secondary agricultural schools buildings. Plans were drawn up to provide the required number of agricultural schools well equipped with modern instruments, teaching aids, libraries, etc.

The training of students is carried out, partly in the schools and partly as field work in farms and agricultural enterprises. Training camps of two or three weeks' duration as well as trips and visits are organized regularly. Central and local advisory committees are entrusted with the task of coordinating the activities of agricultural schools and those of the community. Several programmes for the training of agricultural school personnel were organized on the national and local levels. They included qualifications, orientation and refresher courses as well as seminars, meetings, and conferences.

The agricultural school has been developed so that it can participate in agricultural production and provide the students with practical experience in the techniques of economical and co-operative production in the various agricultural fields.

The development of agricultural education was based from the start on the concrete results of the follow-up studies of secondary agricultural schools graduates carried out in the period 1952-1956. The continuation of such studies proved essential for the promotion of this type of education as well as for the identification of new work opportunities and the training of required manpower. A comprehensive plan has been drawn up for the systematic follow-up of graduates.

The final part of the document is a review of the quantitative development of agricultural education. It contains a number of tables illustrating this development.

Abstract prepared by the Documentation and Research Centre for Education, Cairo.
An investigation was started in 1957 by Martti Takala and Pentti Pitkänen at the Centre for Educational Research (University of Jyväskylä, Finland) to examine the interrelations between physical fitness and other measures of individual difference. The present report deals with the structure and development of physical fitness and the educational significance of development results. The following problems were examined. To what extent does the structure of physical fitness of Finnish school children correspond to that found in other countries? What changes are found in the structure of physical fitness, if grade level (age), sex, locality (urban/rural), and the type of school are varied? How valid are the factors and primary variables, as compared with teachers' marks in gymnastics and athletics? To what extent is the variance of physical performance accounted for by the following variables: grade level (age), sex, locality, type of school?

A school class was chosen as the unit of sampling. The classes selected represented various types of schools and different grade levels (Grades 4 and 6 to 7 in the primary school; Grades 2 and 5 in the grammar school). The mean ages of the various grade levels were as follows: Grade 4 in the primary school, 11 years; Grades 6 to 7 in the primary school and Grade 2 in the grammar school, 13 years; Grade 5 in the grammar school, 16 years.

(1) University of Jyväskylä, 1964. 163 p. (Jyväskylä Studien in Education, Psychology and Social Research, 6.)
Information on physical fitness was obtained on the basis of the fitness tests recorded in the archives of the school. The documents presented the results of the measures performed in physique (height and weight), and school success (school marks in gymnastics and athletics). The following fitness tests were included in the battery: Grip Dynamometer Test, Agility Run I and II, Standing Broad Jump, Vertical Jump and (only for boys) Chinning the Bar. In addition, information on endurance was obtained on the basis of skiing or skating contests and teachers' ratings on previous results.

The correlations between variables, and sixteen factor analyses were computed to examine the factor structure of physical fitness. In addition, the group means and variances were computed to examine the development of physical fitness as a function of age, sex, locality, and the type of school.

Factor analyses. The following factors were revealed by the different analyses: Physical Growth. The main variables are weight and height; in addition 25 to 60 per cent of the variance of the Grip Test is accounted for by the Physical Growth factor. Power. The essential characteristic of the Power factor is the acceleration in the contraction of muscles during tasks requiring abrupt maximum performance. Sudden extension is required in the Vertical Jump, sudden flexion in the initial phase of the Grip Test and Chinning; in the Agility Run start and acceleration are related to fast extension and flexion movement.

Endurance. Two kinds of variables are represented in this factor: first, those directly concerned with endurance, and secondly school marks in sport. Chinning the Bar is positively loaded in the same groups. Agility. Differentiation and integration in the function of large muscle groups is the essential characteristic of the most important tests represented. In the Agility Run the speed varies depending on how the subject is able to co-ordinate the different movements. This ability may be important for the landing phase of the Standing Broad Jump.

Strength. The essential characteristic of this factor is the strength of the hand and arm muscles. Chinning the Bar and Grip Test are most strongly loaded in it.

School Marks in Physical Education. School performances in gymnastics and sports are represented in this factor. Height. The factor is found only for 13-year olds. The existence of occurrence of this factor is determined by the growth spurt in pre-adolescence.
Weight. This factor is found only for girls at Grade V (age 16 years). It seems to indicate an increase in weight after the cessation of growth in height. In general: The factor structure of physical fitness is very invariable considering all the different samples.

Intercorrelations between factors. Growth correlates negatively with Agility in the samples from sixth to seventh school year, and among girls the relationship still holds good at Grade V in the grammar school. In the male samples, Strength is negatively related to Agility in all advanced age groups. Among younger boys, Growth, Endurance, and Strength are closely related, while later Strength becomes more independent. In general: A consistent integration of the motor factors is found with increasing age.

Physical Fitness and Marks in Gymnastics and Athletics. Nearly 30 per cent of the variance in school marks in gymnastics is accounted for by the factor of Athletics and Gymnastics in School, 15 per cent by Endurance and 10 per cent by Agility. Power is positively related to achievement in gymnastics (5 per cent of the total variance), and Physical Growth negatively (8 per cent). School marks in sports are mostly related to Endurance (25 per cent of total variance) and to the factor of Athletics and Sports in School (24 per cent). Power and Agility (10 and 7 per cent, respectively) are also essential, while Strength remains unimportant (4 per cent). The multiple correlations between the battery and the criterion vary between .31 and .75.

Development of physical fitness as a function of age, sex, locality, and the type of school. The development of physical fitness variables is described in tables as well as in figures. Both physical scales and normalized standard scores have been used in the comparisons. It is found, for instance, that between Grade IV in the primary school and Grade VI - VII (or Grade II in the grammar school) Power and Agility are greatly increased, while there is less gain in Strength. After that phase, Power and Strength are strongly increased, while very little change is found in Agility. In girls, Power is increased more strongly than Agility throughout the period, and Agility does not increase after Grade VI - VII (or II in the grammar school).

More detailed suggestions are presented for field study, which could assist in the analysis of the developmental process of physical fitness, its integration and
the relationships between educational variables and physical performances.

Abstract prepared by Mr. P. Pitkänen, University of Jyväskylä, Centre for Educational Research, Jyväskylä.
The study has its origin in a task assigned to a group of experts by a State Committee which was appointed in 1950 to prepare a proposal for the expansion of teacher training and for the revision of the training institutes programme for elementary school teachers. The traditional entrance examination for teacher training institutes was to be improved so that the applicants best capable of development could be selected for training. The study also forms part of a more extensive joint Nordic project in which problems connected with the adjustability and suitability of the teacher to his work have also been investigated.

The investigation deals with a group of teacher applicants who have been observed respectively during the entrance examination, the training period (four years) and the three first years of teaching. The study is divided into four parts dealing with: (a) the effects of selection and training on the results of professional training in so far as they are evident before entering professional life; (b) the general development of the teacher during the training school years; (c) the placement of newly graduated teachers and their adjustment to the school environment; (d) the predictability of field success already in connexion with the entrance examination (in the particular case of exceptionally low marks) and the possibilities of increasing teaching efficiency and adjustability to the teaching profession.

The subjects of the study were mainly students who were admitted to the Helsinki Training School in 1954.
and who subsequently graduated from this school in 1958.
They were compared with the applicants rejected in 1954
and to some extent also with the students admitted in
1955. In 1954, 160 men and 245 women applied for entry
to the Heinola Training School. Of these, 69 per cent
of the men and 26 per cent of the women were invited
to the entrance examination. When the normal selection
methods were applied, only 42 men and 24 women were
admitted, representing respectively 30 per cent and 10
per cent of the original applicants.

The selective effects of the entrance examination
were analysed, taking into consideration additional
data on the applicants which did not influence the stu-
dent selection. When this material was studied it was
observed that:
- the applicants who had been successful at school, who
were relatively old and who had some teaching experience
were more often admitted than rejected;
- the successful applicants differed from those rejected
in respect of their domicile (applicants from urban
areas did better), their motives (those reporting pro-
fessional motives did better) and their educational
attitudes (those admitted scored higher on MTAT);
- the successful applicants declared that the influence
exerted on them by other people in their vocational
choice was minimal;
- the results of the official entrance examination pre-
dicted a higher rate of success in theoretical studies
than in student teaching;
- the efficiency of the entrance examination in the
prediction of both success in practice teaching and in-
service success was found to be low.

When the data collected during the training stage
were studied it was observed that:
- educational attitudes developed on the average, in a
positive direction during the theoretical phase of tra
ining;
- the student's educational attitudes corresponded, in
the beginning, to his social class, but this was no
longer evident at the final stage of training;
- it was not possible to predict study success with
reference to educational attitudes;
- the teachers who were less mature and/or of lower
intellectual capacity were inclined to criticize prac-
tice teaching and their teachers if they had experienced
failures during training.

When the data collected on the first in-service years
were studied it was observed that:
- the teacher's first assignment and the quality of his first post did not correspond to the level of his qualification certificate;
- the teachers from the upper social strata had stronger incentives to remain in the teaching career than those from lower social strata;
- the teacher's satisfaction with his first post depended more on his social background and past experiences than on the nature of the post as such; the least satisfied were generally the teachers who came from the lower social strata and those who had chosen teaching as a career at an early stage;
- the extent to which a young teacher received support from the inspector depended primarily on the teacher's own capacity to take initiatives;
- the educational attitudes of a young teacher took a negative direction during his first in-service years;
- contrary to their own opinion, the educational aims of young teachers were relatively schematic and insufficiently structured;
- teaching efficiency corresponded to the level of structurization of educational aims;
- the rise or fall in the development of the teacher correlated more with his aims and motives than with his working environment.

It was observed when studying the predictability of field success that:
- newly graduated teachers with exceptionally poor in-service success had a larger number of common traits than those who succeeded exceptionally well: the unsuccessful new teachers were unable to understand children and their level of structurization of instructional situations was low;
- the predictors should be considered as a whole (as profiles), also paying attention to the applicant's experiences and intentions;
- a moderate but not too high intellectual capacity was a positive predictor; obvious weakness in logical thinking and strong negative attitudes towards children and/or teaching, in spite of any previous experience and the choice of a teaching career after a prior unsuccessful choice of career, were negative predictors;
- the factors making for success in teaching were capable of compensating one another, except where the ability to understand children was exceptionally low.
The results of this study have already partly been applied in the Finnish teacher training institutes.

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