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ABSTRACT

One hundred and sixty abstracts of articles appearing in periodicals and newspapers make up this quarterly publication on education in India. Many topics are covered, some of which are policy and planning, academic achievement, administration and organization, adult education, curriculum and educational psychology. The abstracts are indexed by the thirty-four topic categories. A special section is on agricultural education. A list of periodicals from which the articles have been chosen is included. A related document is ED 076 485. (KSM)

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INDIAN EDUCATIONAL MATERIAL

Vol 7 No 3 September 1972

ACADEMIC ACHIEVEMENT

318 CHATTERJI S, MANJULA H, BANERJEE S N: Effect of certain socio-economic factors on the scholastic achievement of the school children. Indian Journal of Psychology 1972, 47(2), 133-51. 15 ref.

The sample for the present study consisted of 230 students of classes VI and VII studying in eight different Bengali medium schools at Calcutta. The Non-Language Test of Verbal Intelligence was used to measure the intelligence of the Ss Information regarding the socio-economic status of the subjects was collected through a questionnaire. The annual examination marks of the students in subjects like English, Bengali, mathematics, science, geography and the total marks in these subjects were considered as the index of achievement. The data were analyzed and the following conclusions drawn: 1) economic condition of the family seemed to have no effect on the scholastic achievement of the students in all the three intellectual ability groups; 2) the size of the family and the number of siblings were inversely related to the scholastic achievement of the children specially in the low intellectual groups; 3) in all the three intellectual ability levels, parents' educational level was directly related to the scholastic achievement of the children; 4) the high intellectual ability group had greater achievement in the absence of any guidance from a private tutor than when they are guided by a private tutor; 5) the achievement of the Ss was not consistently related to their fathers' occupations; the children of servicemen excelled the children of businessmen in the high ability group, but the trend was reversed in the average and low intellectual groups.

319 DUTT N K, KAUSHAL P C, SABHARWAL V K: Factorial analysis of intelligence, academic achievement and some personality traits. Educational Trends 1972, 6(3,4), 4-11. 10 ref.

The study was aimed at finding out: 1) the relationship of some factors of personality and academic achievement; 2) the relationship between personality traits and intelligence; and

3) the pattern of relationship existing amongst various factors of personality. Jenkin's Non-Verbal Group Test of Intelligence standardised by CIE, and Dr. Sen's Personality Inventory standardised on Indian population and covering the areas of personality viz., activity, hypomanic tendency, attitude towards moral values, dominance, paranoid tendency, depressive tendency, emotional stability, and introversion were administered to two hundred, X class students (100 boys and 100 girls) belonging to seven intermediate colleges of Aligarh District. The data were analysed and the following conclusions drawn: 1) intelligence and academic achievement are highly correlated variables, but they may serve as effective predictors of the other dimensions of personality in view of the absence of a high correlation amongst them; 2) neuroticism is helpful in academic achievement to a certain extent; and 3) intelligence is relatively independent of personality traits; however, it is slightly related to introversion only.

320 JITENDRA MOHAN, VIRDI R S: Study of relationship between the physical persistence and academic achievement. Journal of Education and Psychology 1972, 30(1), 39-41. 6 ref.

A sample of 40 male and 40 female adults in the age-group of 18-35 years was selected on the basis of their scores on the Eysenck Personality Inventory. A hand dynamometer was used to measure the persistence of the Ss. The academic achievement records of the students were obtained from their respective teachers. On correlation, it was found that the subjects who scored high on persistence also had high academic achievement.

321 KAUSHAL M P: Family pattern and scholastic achievement of graduate students. Indian Journal of Social Work 1971, 32(3), 333-40. 12 ref.

Hundred and sixteen students studying agriculture and agricultural engineering at the Punjab Agricultural University, Ludhiana were the respondents in this study. The social class of the family was considered as an indicator of family pattern. The Index of Class Position, a two-factor intercommunity measure of stratification developed by Ellis et al was modified and used. The intra-class comparison of the students' achievement in twelve trimesters indicated that the students from the lower class had a better scholastic achievement as compared to those from the middle and higher classes. The influence of family pattern on scholastic achievement was determined on the basis of nine attributes with their values. The analysis showed that two values-social participation and community status did not

have significant influence in discriminating the higher and lower class pupils. The other seven attributes-nuclear family structure, harmonious family relations, approval of childrens' behaviour, education of the parents, familialism, progressivism and activism helped the students for better scholastic achievement.

322 NATHUR S S, HUNDAL B S: School achievement and intelligence in relation to some socio-economic background factors. Journal of Education and Psychology 1972, 30(1), 42-9. 13 ref.

The following hypothesis were tested: 1) there is a mutual relationship between intelligence, achievement and socio-economic background factors (parents' income, parents' education and size of the family); 2) socio-economic background factors have positive relationship with the school achievement of the children when the intelligence factor is kept constant; 3) the partial income, parental education and the size of the family have a relationship with the school achievement; 4) the school achievement can be largely determined by the two factors of intelligence and socio-economic background factors irrespective of other considerations. One hundred IX class students of a higher secondary school in Amritsar were chosen as the sample for the study. The sample consisted of students belonging to almost all the sections of society. One of the investigators taught the sample two entirely new topics which required very little previous knowledge. After a week's teaching, the Ss were given the achievement test prepared in consultation with the teachers and the headmaster of the school. The sample was also administered a socio-economic questionnaire and Hundal's Intelligence Test in Punjabi. The collected data were tabulated and a number of correlations calculated. The results confirmed all the four hypotheses.

323 PADMAKAR V V, RAMAMURTI P V: Security-insecurity and achievement. Indian Journal of Applied Psychology 1972, 9(2), 68-70. 18 ref.

A study to investigate the relationship between security-insecurity and achievement was made. A sample of 560 men students of an arts and science college between the age of 17 and 21 were administered Maslow's Security-Insecurity Inventory, and Raven's Standard Progressive Matrices Test. The aggregate of marks obtained by the student at the last public examination was taken as a measure of achievement. The results of the investigation revealed that secure individuals achieved significantly higher than insecure individuals and vice versa. Security-Insecurity inventory scores retained a low

negative correlation with achievement scores even after partialling out the effect of intelligence.

324 SINHA N C P: Intelligence and scholastic achievement. Manas 1972, 19(1), 59-63. 8 ref.

It was hypothesized that intelligence would be positively and significantly related to scholastic achievement and that the high and the low achievers would be significantly differentiated on intelligence scores. The study was made on 400 students of classes X and XI, 200 being high achievers (those who got 65% or more) and the rest low achievers (those who got below 30%). The Hafde's Non-Verbal Test of Intelligence was administered in groups of 10-15 students. The phi-coefficient and t-test results confirmed the first and the second hypotheses, respectively.

ADMINISTRATION AND ORGANIZATION

325 Aligarh Muslim University [Editorial]. Educational India 1972, 39(1), 18-21.

Discusses the implications of the new Aligarh University Act. The new Act has granted additional powers such as provision for instruction through correspondence courses or any other method, establishment of special centres and specialised laboratories of research and education and appointment of persons working in any university/institution as teachers of the university. The mode of appointment of officers to the university, the constitution and functions of the court, the executive council and the academic council have been revised in accordance with the recommendations of the Gagendra Gadkar Committee. A new provision enables the aggrieved students to appeal to the executive council or to get the disputes referred to a tribunal of arbitration. It is desired that the Aligarh Muslim University should function as an ideal university, achieve social and national integration, discover and develop talent and create centres of excellence in higher education.

326 Aligarh Muslim University (Amendment) Act, 1972. New Frontiers in Education 1972, 2(2), 80-92.

The passage of Aligarh Muslim University (Amendment) Act, 1972 by the Parliament was followed by controversy. An attempt is made by Mani Jacob to explain briefly the historical background of the university and the salient features of the Act. Some

reflections on the Act is given by S.N. Kattiyar. Whether the Act contributes to the aimed democratisation of educational management has been examined by Ruddar Dutt.

327 Autonomy for some Delhi colleges now; for Osmania Colleges soon. University News 1972, 10(7), 5.

An Ordinance amending certain sections of the Delhi University Act has been promulgated by the President of India. The amendments relate to giving of powers to the university to declare colleges conducting courses of study in the faculties of Medicine, technology and music and fine arts as autonomous colleges and to set up one or more college Councils. The Ordinance also gives powers to the Executive Council of the university to make new or additional Statutes or amend the existing Statutes with the approval of the Visitor of the university. The Osmania University has also plans to make certain selected colleges autonomous as an experiment.

328 JOSHI K L: Central Ministry for higher education. University News 1972, 10(6), 16-19.

Making higher education i.e. all education beyond matriculation a Central subject by suitable amendment of the Constitution and establishing a Central Ministry for the purpose has been strongly urged. Higher education being an important sector for the promotion of national integration, it should be made a Central subject like defence, railways etc. Making it a Central subject, involves only financial and administrative control by the Centre and does not mean the interference with the autonomy of the university. Local advisory committees for each university involving State Governments and local authorities could be established though maintenance and development grants will be paid by the Central Ministry of Higher Education. When all universities are brought under the Centre, university administration could be centralised and a proper university service be evolved on an all-India basis in all universities. The fragment sectors of higher education such as technical education, medical colleges, agricultural colleges, etc. could be brought under one Central Ministry. The disparities in coordinating functions of UGC in granting financial aid to universities could also be checked by the Central Ministry of Higher Education. It has been suggested that USSR pattern of dealing with higher education should be adopted to suit Indian social and economic conditions.

329 KAPUR J N: Semester system in Meerut University. University News 1972, 10(9), 6-11.

The characteristics of the semester system in Meerut University, its advantages and disadvantages, and the characteristic features of the semester system in IITs and foreign universities which are absent in the Meerut University have been enumerated. Some of the suggestions offered for improvement of the semester system in Meerut University are: 1) reducing the number of lectures in each subject; 2) increasing the office staff; 3) introducing internal assessment; 4) developing a system of moderation of internal and external marks; 5) having only two types of courses, the main courses to run for four semesters and half courses to run for two semesters; 6) organizing summer courses more systematically; a central agency should be responsible for this; 7) abolishing the summer examination and conducting only two examinations in a year; 8) alternatively, making arrangements for those who fail in one or more courses to complete their degree requirements in 2½ years; 9) allowing no direct admission to the second semester; 10) enhancing the financial resources by increasing students' fees, procuring additional grants from the Government and acquiring a computer.

330 MATHUR S S, SETH P: Perceptions of the role of school administrator by the school principals and the teachers. Educational Trends 1972, 6(3,4), 12-21. 12 ref.

The study was aimed at finding out the relationship among the school administrators' and the teachers' perceptions regarding the role of the school administrators. The principals and teachers of 25 high and higher secondary schools situated in the urban areas of Chandigarh and Ludhiana constituted the sample for the study. A role-perception inventory containing 100 statements representing the five aspects of school administration viz., i) administration, ii) teaching, iii) supervision and inspection, iv) school administrator and his relations with teachers and pupils, and v) administrator and community, was administered to the sample. The responses of teachers and principles were analysed and the following conclusions drawn: 1) there was a fair amount of convergence in the perception of the roles of the administrator among the teachers and principals; the convergence was high so far as the administrative aspect was concerned; 2) teachers and administrators agreed with most of the statements explaining the role of the administrator in the utilization of financial aid to the benefit of the school, in improving the standards of teaching etc.; 3) teachers did not perceive that the role of the administrator was linked with the respect given to teachers; however, administrators favoured respecting teachers' personality;

4) the administrators perceived their role as that of co-operative leadership, but the teachers perceived it otherwise; 5) basic differences existed in the perception of roles of teachers and administrators with respect to the teaching role of administrators; and 6) the views of heads and teachers converged so far as the community relations were concerned

331 PURI R P: Should higher education be made concurrent? University News 1972, 10(9), 4,5,11.

Central control and guidance in higher education is necessary to make uniform rules regarding some important matters like provident fund/pension benefits, health services, sabbatical leave, recruitment of teachers, conditions governing affiliation of colleges to universities etc., to give effect to the recommendations and proposals made from time to time by the UGC and its Committees, to maintain uniform standards of efficiency and progress in subjects of national importance, etc. Hence, the administration of higher education, including universities, should be made a concurrent subject, as suggested by several high-powered committees from time to time.

332 School buildings /Editorial/. Amrita Bazar Patrika 17 September 1972, p.6, cols.2,3. 400 words.

The School Buildings Committee appointed by the Central Advisory Board of Education has recommended to the Government to set apart Rs.10 crores a year for the next ten years specifically for the construction of school buildings. Half of this money would be in the form of grant and the other half as loan. A central financing corporation for educational buildings has also been recommended. The backlog in school buildings is evaluated at Rs.250 crores.

333 SHARMA M L: Educating the managers of the educational enterprise, an exploratory programme. NIE Journal 1972, 6(3), 9-18. 23 ref.

A school administrator can be defined as one who directs the activities of other persons and undertakes the responsibility for achieving certain objectives through these efforts. Successful administration rests on the three basic skills namely, technical, human and conceptual. When the administrator moves farther and farther from the actual physical operations, the need for technical skill becomes less important and the administrator may still be able to perform effectively if his human and conceptual skills are highly developed. Stressing the need for a full-time course for the preparation

of educational administrators, a tentative programme has been designed. The two-year programme has been distributed among four phases: 1) during the first semester, the literature, concepts and theories of educational administration, including decision-making, leadership, authority and related social sciences can be concentrated upon; 2) seminar discussions and study based upon practical experiences involving the school's external reference groups - the Department of Education, Social Welfare units, etc. - may be included in the second semester; a comparative study of administration in different fields such as in army, industry etc. may also be included; 3) the third semester will be devoted to intensive study, with experts, of research and applied research in education, and study of innovations and new practices; 4) this semester could be devoted to visits to selected schools and institutions for direct observation.

334 SINGH V B: Analysing Aligarh University Act. Mainstream 1972, 10(43), 10-12.

The salient features of the new Act (1972) are: 1) restoration of the unitary and residential character of the Aligarh Muslim University; 2) assurance of the continuity of the history of the university within the current national life; 3) representation of adequate teachers and students in the university; 4) provision to impart instructions to private candidates through correspondence courses or by any other method; 5) appointment by the university, the academic staff of other universities as teachers of Aligarh University on a part-time basis to reinforce its academic strength; 6) abolition of the treasurers post and appointment of a whole-time financial officer who would be an employee of the university; 7) appointment of the Chancellor by the Visitor instead of by the Court; 8) introduction of a student council as a part of the authority of the university; 9) making the university court a 'deliberative body' and not the 'supreme authority'; 10) introduction of the Department Committies and the Board of Studies; 11) provision for the rotation of Headships and an appellate authority to settle educational disputes and unrest; 12) provision for the constitution and functioning of Teachers' Associations through university ordinances; and 13) fixation of the retirement age of teachers as 65 years. Discussing the implications of the new Act, it has been criticized that the interference of the university ordinances in the constitution and functioning of Teachers' Association are undemocratic and university should not dictate things through ordinances to the teachers' associations. Referring to the tenure of teachers it has been stated that social security and welfare including running grade, pension etc. should have been mentioned. Recommendations of Gajendra Gadkar Committee on the governance of universities and colleges should be implemented in the States.

335 STEVENS J M: Planning hostel buildings. New Frontiers in Education 1972, 2(2), 42-6.

It is suggested that hostels should be devised as 'homes'. In a hostel the purpose should be to provide residence a) where one can live simply - not spending all the time doing the simple act of existing; b) well-placed for extra-mural activities, with minimal travelling; c) that does not exaggerate the position of the students as being different from other people; d) that enables the student to be an integral part of the structure of society as a whole. Personal contact between the warden and students is the key to a good hostel life. The number of residents in one hostel block should be restricted to 100. However, the arrangement should further be broken up into smaller units of study-bedrooms for 8-12 students with their own sanitary facilities, common kitchenette etc. The dining hall should be devised for two-thirds capacity if staggering of meal time is planned. The roof need not be expensively cast just for avoiding a few pillars. Each dining table should seat 4 and the total dining room accommodation should be at 14 Sq. ft. per student. Common rooms should be attractively designed but need not be too big. There should be single seater, double-seater and four seater student-rooms to allow a range of choice suiting one's capacity to pay. Rooms should be comfortable. Collapsible beds can be favoured. It is desirable to provide a washbasin in each room. In the design of hostels, the central corridor system should be avoided since it contributes maximum to the noise nuisance.

336 Two-year pre-degree /Editorial/. Hindu 17 August 1972, p.8, col.2. 450 words.

In the light of the unsatisfactory experience with the pre-university course, the seminar of university teachers at Madras favoured a revival of the two-year pre-degree course. However, there was unwillingness to reduce the duration of secondary education by one year to 10 years so as to keep the total span of education upto the first degree to 15 years. This could be done by reducing the duration of the degree course to 2 years. However, there will be need to prune down the language syllabus so as to find time for teaching the subjects of specialisation within the duration of two years. The school education should be vocationally biased to siphon off students to employments. The junior colleges should provide necessary training for marching into general and professional degree courses. The Madras seminar also supported the revival of the old honours course for the benefit of better students.

337 University reform [Editorial]. Free Press Journal 27 September 1972, p.4, col.1. 500 words.

The Bombay University has taken steps to safeguard the service conditions of teachers in colleges affiliated to it. The university senate has asked the syndicate to promulgate an ordinance placing the service rules of teachers on the statute book and making compliance of the rules a condition for affiliation of colleges to the university. A committee set up by the senate has gone into the working of the various privately run colleges and made some recommendations for improving the relations between the college managements and their academic employees. The senate committee has codified the legal rights of teachers and made certain other recommendations regarding confirmation of services of teachers, their pay scales as well as other benefits like leave, provident fund and gratuity all of which have been approved by the senate.

ADULT EDUCATION

338 AMRIK SINGH: Universities and adult education - the Indian case. Indian Journal of Adult Education 1972, 33(6), 3-6, 18-20.

Manpower planning forms a part of the strategy of development adopted by a country. Universities are important instruments in implementing the strategy. However, in India, the required alignment between the strategy of development and the educational policies is wanting. This necessitates reordering of priorities which can take two forms - a) moderating the expansion of professional and general education to the extent that funds are not wasted on it, and b) strengthening the rural sector of education. The latter may be done in two ways - a) enabling the agricultural universities to do what they are doing with greater vigour, and b) promoting adult education on a very wide front. The traditional universities, on the other hand, can help the country's development by becoming more efficient through purely internal action and by making education more relevant to life. It is also necessary that those universities give up their indifferent attitude towards sub-professional education and adult education. They should take the responsibility of training personnel needed for middle level skills as well as promoting the literacy movement.

339 GUPTA L N: Linking adult education with life. Indian Journal of Adult Education 1972, 33(7), 2,3,9.

The role of adult literacy in the economic development of the country has been explained. The slow progress of adult literacy in India has been attributed to the lack of financial resources and to the faulty methods of implementing the programmes. The personality of adult illiterates should not be misjudged and due consideration should be given to their experience and commensense while implementing literacy schemes. Adult literacy programmes should be launched only on a selective basis after a thorough study of resources, conditions and attitudes obtainable in the area of operation. The programmes should be realistic and linked to the interests of adults. They should also interpret the results of regional developmental programmes and prepare adults to use the results of big schemes. There should be coordination between the work of educator and that of technologist, engineer, technician and generalist administrator. Care need be taken to see that functional literacy programmes do not become purely utilitarian programmes benefitting only influential section of society. Coordination of adult education programmes with economic and social reforms, adequate financial resources, good teams of instructors, mobilisation of senior students to adult literacy work, are, however, essential for the success of the programmes.

340 KANSAL H R: Adult education in Punjab before independence. Indian Journal of Adult Education 1972, 33(7), 12-14. 8 ref.

The history of adult education during the period 1901-1947, in Punjab has been traced.

341 KNOTT B H: Conceptual learning - implications for social education. Indian Journal of Social Work 1972, 32(4), 353-68. 28 ref.

A theoretical orientation towards adult learning has been developed using Piaget's developmental theory. Attention has been given to issues relating to graduate social work education and to class-field instruction. It has been stressed that conceptual teaching is a productive approach to the problem of coordinating class-field learning. Pursuing this theme, learning has been discussed under the following headings: 1) primary learning processes; 2) adult concept attainment; 3) factors in effective learning; 4) problems in adult learning; and 5) products of learning.

342 LOWE J: Research priorities in adult education in developing countries. Indian Journal of Adult Education 1972, 33(8), 6-8.

Research in adult education has gained impetus during recent years and adult educators in developing countries are treating research as a high priority in their plans. However, it is essential that researchers distinguish between experimental and action research and adult education be regarded as a practical discipline aiming at changing the people's habits, and attitudes, improving the methods and techniques of communication and solving social problems. The researcher has to rely upon two sources viz. the relevance of related disciplines such as philosophy, psychology, sociology etc. and the professional experience. Next, institutions have to be selected to undertake research. However, universities are best suited for research work as they can assume the responsibility of research work as well as the training of adult educators. The adult educators should be research minded. They should continually analyse their work, compile reports and identify and solve problems through applied research. A knowledge of elementary statistics, survey methods, sampling procedures, evaluation techniques and attainment tests is also essential for a research worker. The following list of priorities has been drawn to aid the universities planning a research programme: 1) recording and classifying the relevant material; 2) survey of the existing facilities; 3) descriptive studies of providing bodies and their programmes;; 4) a written summary of past history to acquire a sense of perspective; 5) studies of the relationship between social change and adult education; 6) studies of the efficacy of various teaching methods; 7) studies of organisation and administration of adult education programmes; 8) studies of the effectiveness of various programmes; and 9) experiments with the newer media.

343 MATHUR J C: Functional literacy for professional people in a multilingual society - a historical perspective. Indian Journal of Adult Education 1972, 33(6), 7-10.

Religion, commerce and administration were responsible for the preservation and monopoly of literacy and learning of languages in different societies over the decades. In India, ironically enough, immediately after independence, there was a greater demand for English knowing people due to the sudden departure of British personnel holding key positions. However, the country's economic development can no longer be achieved and sustained by a small group of people without the active participation of the masses. The masses will need a link language like Hindi to help them participate in the country's development programmes. Hindi, as one of the two official languages of India has to develop in three directions - a) the development of the list of words and

vocabularies answering the needs of different professions and functions; b) the development of link syntax and phrases which connect these technical terms; and c) Hindi will have to remain dynamic and responsive to new words and adjustments according to the needs of professions and regions.

344 Programmes of adult education in 5th Plan. Workers Education 1972 August, 77-81, 135.

The proposals for adult education in the 5th Plan were discussed at the 2nd meeting of the National Board of Adult Education held at New Delhi on 21st July 1972. These included programmes of mass literacy, functional literacy, adult education for workers, shramik Vidyapeeth, adult schools, libraries, production of reading material for neo-literates, training and orientation, and the role of voluntary organizations, universities and mass media in adult and continuing education. A statement indicating the tentative provisions for different programmes during the Fifth Plan have been given.

345 **SACHDEVA J L:** Schools and adult education. Naya Shikshak (Teacher Today) 1972, 14(4), 19-23. 6 ref.

It is pointed out that schools and school teachers can be utilised for adult literacy and adult education work. The experiences and programmes of a number of developing countries show that this is possible. Mention is made of the programme of adult education of the Bureau of Public Schools in the Philippines. Some of the programmes which schools can undertake are: 1) literacy work; 2) continuation programmes for young adults who have not completed primary and secondary education; 3) vocational education like tailoring, carpentry, brick-laying, etc.; 4) family planning, folk music, civic affairs, agricultural innovations; 5) women's education including child care, health and hygiene; 6) community improvement; 7) personal advancement; 8) community living and leadership. It is necessary that each school should have a staff member specially designated for adult education. It should be his job in collaboration with his colleagues to organise educational programme for adults.

346 **SHUKLA P D:** Life-long education. New Delhi, Orient Longman, 1971. 114p.

Stating that education is life-long process, an attempt is made to describe the new dimensions of adult education and changes necessary in the present educational system in order to make life-long education a reality. The roles which various organizations like Trade Unions, Co-operatives and Universities can play in this new concept of education have been detailed.

347 BAJPAI S D: Teaching of mathematics at primary and secondary schools. Mathematics Education 1972, 6(2), 33-40.

In line with modern thinking in education, the teaching of mathematics should be as far as possible on students' practical investigation and experiment. Mathematics should not be considered an abstract subject and students should be taught to establish a link between mathematics and the problems of human life. A list of topics has been suggested to be considered as a basis for preparing the syllabi of primary, middle and secondary classes in accordance with the needs of particular countries.

348 D'SOUZA A A: Three language formula and Indian schools. Rajasthan Board Journal of Education 1971, 7(4), 21-6.

The Three-language formula was evolved by the Central Advisory Board of Education and approved by the Chief Ministers Conference in 1961. The main consideration that shaped the formula was political, and the educational implications were not fully understood. There cropped up major troubles in its implementation. Later, the Kothari Commission (1964-66) recommended a modified formula. The Parliamentary Committee that considered the Kothari Commission Report recommended a Two-language formula, which though educationally sound was not accepted by the Government. In the implementation of the Three-language formula, (suggested by the Kothari Commission) certain factors such as objectives, classroom organization, availability of textbooks and other materials, allotment of time in the time table, teaching methods and availability of needed teachers have to be taken into consideration. The main objective in teaching the second and the third languages should be to achieve functional literacy and oracy. Children who take languages at second and third language levels should be taught separately from those who have them as their mothertongue. The second language should be taught from class V to X and the third language from class VII to X. Well-qualified native speakers of the language should be made teachers. Research-cum-teaching Institutes should be established for Hindi and other Indian languages on the model of English Language Institutes.

349 LULLA B P: Operational implications for promoting population education. NIE Journal 1972, 6(4), 9-18.

The population explosion in India calls for educating and equipping the younger generation for a planned living. The following operational measures have been suggested for introducing population

education to youth: 1) creation of school climate by i) involving and orienting the Director of Education to the need for population education to be introduced to the younger generation, ii) convincing the education inspectors of every district about implementation of population education in schools on an experimental basis, iii) informing school managements regarding population education through departmental circulars or memoranda, iv) training the school headmasters through short term courses in the area of population education; 2) reorientation of teachers by enriching the orientation programmes in training colleges to develop a new outlook and skills among teachers and through the provision of instructional material to be used in classroom situation; and 3) motivation of pupils by i) informing parents about the subject and thus creating a favourable attitude in children towards the subject of population growth and control, ii) modifying the syllabus and correlating the school subject topics to the social problems and life situation, iii) including relevant topics on population in social studies and sciences, iv) giving weightage, in evaluation, to the pupil learning on population problems, and v) organising extra-curricular activities to develop population awareness among children.

350 LULLA B P: Teacher-trainees' perception of population problem and the needed population-oriented education in schools. Educational Trends 1972, 6(3,4), 45-55.

The responses to a checklist comprising items, viz., personal information, knowledge about population situation, and attitude towards the remedial programme and population education were collected from 104 graduate trainees undergoing training courses at the Faculty of Education and Psychology, M.S. University, Baroda. The data were analysed and the results tabulated. The major findings are: 1) though many trainees believe that India is over-populated and that many of her problems are due to high rate of population growth, their knowledge about the actual facts of Indian population was poor; 2) many trainees felt that family planning programme could be meaningful; however, their knowledge about the major methods of family planning was vague; 3) majority of the subjects felt that schools could help solve the population problem, but, a portion of the subjects did not approve of exposing the children to population education. It has been suggested that the concept of population education should be made clear and the teachers equipped with information, knowledge and skills in teaching population oriented education in schools.

351 MEHTA T S: Population education, a new strategy for India. Social Action 1972, 22(3), 210-21.

Over 45 per cent of India's population is under 15 years of age. This group will strongly influence the demographic situation in the country in the next few decades. It is here that population education becomes relevant as a motivational instrument that will prompt the younger generation with a desire to adopt the small family norm. Three major elements, viz., i) determinants of population growth; ii) demography, and iii) consequences of population growth, form the core of any population education programme. To this may be added the two elements - a) human reproduction and family planning policies and programmes, to make it more comprehensive. There is considerable confusion between 'population education' and 'sex education'. The major components of sex education are a) human physiology and reproduction, b) contraception, c) social interactions associated with human sexuality. Human physiology and reproduction can be easily incorporated in population education without arousing any controversy. The steps required prior to the inclusion in population education of the other two components (b and c) are: i) studying the needs of the community, its cultural constraints, social norms; ii) ensuring that the programme is in the hands of competent people and has the backing of competent professional opinion; iii) instituting pilot projects and a process of evaluation before launching an extensive programme.

352 MISRA D S: Population education in school curricula. CENBOSEC News and Views 1972, 8(2), 11, 12.

Population education being a new subject, suitable models will have to be evolved to suit the prevailing conditions of different parts of the country. The best way to introduce population education to younger generation, is to make it a part of health education subject. Scientific knowledge about health and family living should be imparted to school children and efforts be made to develop an understanding of effects of overpopulation. Children of older age-group should be taught the right attitudes towards a planned family life, the relationship between population growth, unemployment, and the lowering of the standard of living. The programme should encourage pupils to adopt a healthy family life and inculcate in them a desire to have a small family. However, the introduction of this subject in school curricula requires revision of the syllabus, preparation of new text books, production of supplementary reading material and guide books for teachers, and orientation of classroom teachers. Care should be taken that students are not exposed to reading material which might prove harmful. The contents of films proposed for exhibition to students by non-official agencies should be approved by the State educational authorities before being screened in schools.

353 MOHAMMED HUSAIN: Population education through cocurricular activities. Rajasthan Board Journal of Education 1971, 7(4), 14-19.

It is the educational process by which a basic awareness about population problem and favourable attitude towards small family size can be developed. The outline of the syllabus of population education should include 1) problem and challenge of population growth, 2) population growth and food supply, 3) health, 4) standard of living, 5) small family for better living. Population education can be imparted a) as a separate discipline, b) in an integrated way with other subjects, c) through cocurricular activities. It is observed that cocurricular activities have a lasting effect on children in developing certain attitudes and values. The following cocurricular activities are suggested through which population education can be imparted: 1) literary activities; 2) cultural activities; 3) audio-visual aids; 4) visual aids and exhibitions; 5) visits to the community; 6) inviting persons to address students, etc. The teachers have to take care of the following things in order to ensure better results: a) these activities should be organised very seriously and not ridiculed, b) students should be actively involved in planning and implementing these activities, c) teachers should have implicit faith in the programme, d) cooperation of community and other agencies should be sought in planning and organizing these activities.

354 REGIONAL COLLEGE OF EDUCATION, EXTENSION SERVICES DEPARTMENT, BHUBANESWAR: Report of a seminar on secondary school mathematics. Bhubaneswar, the college, 1971. 99p.

A conference of senior mathematics teachers and method masters in mathematics of the training colleges in Orissa was held in the Regional College of Education, Bhubaneswar in February 1971. The main objective of the conference was to study the existing syllabus in mathematics at the secondary and higher secondary stages in Orissa. The report includes the revised syllabus suggested by the conference.

355 STALEY E: Towards a more work-oriented schooling. Economic and Political Weekly 1972, 7(31-3), 1667-74. 5 ref.

The need for drastic curriculum reform in schools has been stressed. This means changes in the content, teaching methods and evaluation. Continuance of the existing system would mean producing more and more alienated youth unable to find suitable jobs, and unable to generate their own jobs for self-employment. It is generally agreed that instruction in schools should be made more relevant to the world of work, to the future job needs of the youngsters and to the country's need for efficient producers. However, there is lack of

agreement on any strategy for achieving these aims; even when there is agreement on strategy much thought and effort are required to move from statements of objectives to actual implementation. Hence attention is focused on implementation. A broad strategy is offered to achieve the general aims. Also, some specific suggestions are made on the designing of curriculum development and on the preparation of new instructional materials and methods. Many of the ideas suggested are applicable (with appropriate adaptation) at other levels and in non-formal, out-of-school education as well.

ECONOMICS OF EDUCATION

356 KHAN Q U: Unit costs of technical education - a study of their structure in Delhi. Manpower Journal 1972, 8(1), 71-99.

The approach in the present paper is limited to calculating institutional costs only as no reliable data were available on student costs and opportunity costs. The calculation relates to unit costs of technical education imparted in various types of institutions. They are based on the actual expenditure incurred on technical education in the Union Territory of Delhi during 1964-65 to 1968-69. An attempt is made to throw some light on the various uses to which a study of institutional unit costs can be put, and to show the trends in the unit costs of technical education imparted at craftsman technician and degree levels. It brings out the variations in salient components of unit costs and their ratios among technical education at different levels. The actual unit costs have also been compared with the unit costs of model schemes.

EDUCATION : GENERAL

357 BAKHSHI G L: Towards better education - a practical programme of energizing capacities. New Delhi, S. Chand, 1971. xiii, 242p.

The following aspects have been discussed: 1) college improvement programme; 2) school improvement programme; 3) the role of educational administrator; 4) modernization of syllabuses; 5) wastage and stagnation; 6) devoted teachers; 7) student unrest; 8) women's education; 9) educational planning and finance; 10) educational reconstruction; 11) religious instruction; 12) teachings of Gandhiji and the Guru Nanak, etc.

358 CHARI M S V: Some problems on education. Educational India 1972, 39(1), 13, 14.

The following suggestions have been put forth to solve the problems of education: 1) complete autonomy of education should be established by bringing an amendment to the Constitution that education like military should be non-votable and that a fixed percentage of revenues of States and the Centre be made over to an autonomous central education planning body having educationists as members; 2) all major industries be statutorily asked to start production-oriented schools and higher institutes of technical learning; 3) more quality teachers be employed to ensure beneficial teacher-pupil ratio and the student be allowed to learn at his/her own pace.

359 DESHPANDE R D: Scientific and technical education, steps to improve quality and extend scope. Economic and Political Weekly 1972, 7(31-3), 1661-6. 6 ref.

An attempt has been made to identify some steps which could be taken by the Central and State Governments and universities to more effectively utilise the existing facilities for scientific and technical education. The following steps have been suggested: 1) setting up a Science Research Council responsible for encouragement, prosecution and support of research and development in science and technology in the universities, IITs and other technical institutes; 2) establishing Cooperative Inter-disciplinary Research Institutes designed to meet specific needs and with a reasonably long-range objective; 3) creating Science Centres with the necessary scientific equipment which could be shared among a number of educational institutions; 4) establishing centralised Science Instrumentation Centres to provide research scientists with wide variety of high-precision equipment required for modern research and to serve as training centres for scientists in specialised instrumentation and analytical techniques; 5) instituting a number of appropriate engineering education projects and consultancy service in the universities and IITs for national development. The success of these efforts would depend on proper planning and identification of suitable institutions and personnel for their execution. These programmes have to be started first on a pilot project basis.

360 GUPTA A K: Case for an educational revolution. NIE Journal 1972, 6(5), 5-14.

A case has been made for an immediate top-to-bottom revolution in the field of education, as an analysis from both theoretical and practical angles has revealed that the present educational system is not suited to serve as an effective instrument for bringing about

economic, social, political and moral regeneration. A few guidelines suggested for bringing about an educational revolution are: 1) reformulating educational values; 2) Indianizing the educational system; 3) keeping a strict control and watch over the input and the annual output of educational institutions and then taking immediate steps to keep the balance between the annual output and the manpower requirements of various vocations; 4) introducing vocational and educational guidance programmes at various stages of schooling or during higher studies; 5) making all educational institutions autonomous; 6) changing the very concept of education in the minds of the masses and bringing the benefits of general education to the public at large; 7) speeding up the programme of mass education and adult education to instil new values in the masses; 8) in teaching at school stage, emphasizing the mastery and knowledge of concepts underlying a subject; 9) giving due recognition to the teacher, the main instrument of educational revolution; 10) organizing special programmes for exceptional children; 11) encouraging educational research in schools, colleges and universities.

361 MATHIAS T A: Education for social change, social justice without violence. Social Action 1972, 22(3), 237-46.

In promoting social justice, educational institutions have a function. Most of the radical talk and writing indulged in by the young, ostensibly to promote social justice is mere verbal radicalism. This verbal radicalism has to be transformed into a functional radicalism which would spur genuine student leaders to lead responsible protest against grave social injustice and thus influence other students in a common determination not to tolerate exploitation. If education is to contribute to the emergence of an equitable social order, the best possible education should be given to the children of the poor along with the children of better-off classes. Educational institutions must somehow combine success in examinations with the inculcation of a sense of social justice. Moral and religious instruction, and teaching of humanities and social sciences can be turned to advantage in communicating a sense of social justice. Case study approach in these subjects would not only illustrate the theoretical principles of social justice but also suggest possible types of action such as public protests and other symbolic gestures of support for the oppressed. Extra-curricular activities such as National Service Scheme, the National Cadet Corps, the Tarun Shanti Sena, Literacy Corps, etc. have to be skilfully used for the porpose. Teachers themselves have to be helped to develop a social conscience. One way in which teachers and students can be made to take an interest in social change is to associate them more closely with all decision-making processes in the institution.

362 SAXENA G P: Crisis in education - analysis and remedies. Modern Review 1972, 120-21(2), 109-12.

The drawbacks of the present educational system have been discussed and the following remedies suggested: 1) some selectivity should be introduced with regard to admissions to higher education; 2) higher education should be linked with manpower needs of the country; 3) the education must be vocationalised to enable students to start independent careers after their studies; 4) the outdated examination system should be replaced by a new system; 5) the quality of education should be raised and over-crowdedness in class-rooms be discouraged.

EDUCATIONAL PSYCHOLOGY

363 AARON P G, MALATESHA R N: Fluency, flexibility, and motivation, - a study in creativity. Journal of Education and Psychology 1972, 30(1), 7-10. 4 ref.

Fifty high school boys from two schools of Dharwar, one urban and the other rural, were taken for the study. A test to measure the flexibility and fluency which are the indices of creativity was administered to the Ss. Motivation was assessed in terms of n Achievement through a standardized TAT instrument (Aaron, Marihal and Malatesha, 1969) and the attitude of modernization was measured through yet another standardized scale (Aaron, Marihal and Malatesha, 1969). The preliminary analysis was done through the Pearson product-moment coefficient of correlation method. Creativity and modernization were not closely related. The recreative pupils did not seem to be more modern and radical or less conservative. On the other hand, creativity and motivation were found to be highly related. The findings of analysis of co-variance further indicated that the high and the low groups of creativity differed significantly from each other in n Achievement. The highly creative boys were also highly motivated. Thus, the present study did not conform to the findings of researchers like Getzels and Jackson.

364 BADAMI H D, BADAMI C H: Interpersonal relationship of truants and non-truants. Indian Journal of Psychology 1972, 47(2), 153-9. 21 ref.

The sample for the present study consisted of 58 truants and 66 non-truants selected from the 5th, 6th and 7th grades of four municipal co-educational schools situated outside of the city walled area of Ahmedabad. The age-range of both the groups was 9-16 years. A sociometric test (three general criteria; three

choices) appropriate for the group under consideration and a social adjustment inventory in Gujarati developed by the senior author were used to study the interpersonal relationship. The analysis of the data revealed that the interpersonal relationship of the truants was comparatively very poor. They were not able to choose required number of classmates and did not express necessary choices on each sociometric criterion. Very few of them expressed mutual friendship and most of them were neglected by the group. Most of the truants were socially maladjusted. On the other hand, the interrelationship of the non-truants was encouraging and satisfactory. They had mutual liking for each other and had better social adjustment than the truants.

365 BAYATI J L: Leadership and scholastic achievement in view of social acceptance - a sociometric study. Journal of Education and Psychology 1972, 30(1), 23-33. 13 ref.

The sample for the present investigation had 79 VII class students of the privately managed co-educational city schools in Rajasthan. The sociometric questionnaire prepared by the investigator and an adopted form of Leader Behaviour Description Questionnaire originally prepared by Hemphill and Coons of Ohio State University were administered to the Ss. The school marks of the Ss were collected from their respective schools to know their scholastic achievement. The findings are: 1) social acceptance and leadership qualities were positively related; 2) scholastic achievement had nothing to do with social acceptance; however, no consistent relationship was there between the two; 3) the factors for social acceptance in order of preference were good habits, studious, seat mate and neighbourliness, assistance in studies, clever, good conduct, industrious and so on.

366 BRAR J S: Study of the relationship of anxiety with professional and educational hierarchy in army. Indian Journal of Psychology 1972, 47(2), 189-91. 11 ref.

The study was made on 150 randomly selected subjects from the Army Educational Training College and Centre, Pachmarhi. The Ss were classified into 3 professional levels and 3 educational achievement groups as shown below - undergraduates, graduates, post-graduates, Commissioned officers, Junior Commissioned officers and Non-Commissioned officers. The D.P.I. (1966) was administered to the subjects mostly individually. The results revealed that anxiety had practically no relationship with professional and educational status.

367 CHATTERJI S, MUKERJEE M, DAS A: Effect of intelligence level on interests. Manas 1972, 19(1), 47-53. 11 ref.

A sample of 232 boys of class VIII studying in three different schools in Calcutta was administered the Chatterji's Non-Language Preference Record which measures interest in ten fields and the Non-Language Test of Verbal Intelligence. Sixtyseven boys were placed in high intelligence group, 114 in the average intelligence group and 51 in the low intelligence group. The low intelligence group displayed more interest in fine arts, agricultural, crafts, technical, sports, outdoor and household activities than the high intelligence group though in scientific activities they showed almost equal degree of interest. The high intelligence group had greater interest than the other two groups only in activities related to medical scale. The mean scores for the average and low intelligence groups more or less clustered together in almost all the fields of interest excepting literary and crafts. The low intelligence group displayed more interest in crafts activities while the average intelligence group showed more interest in literary activities. The high and the average groups differed significantly in scales like fine arts, agricultural, technical, crafts and household work, whereas the high and the low groups showed significant difference in scales like agricultural, crafts and household work only. On the basis of the findings, it has been concluded that the high intelligence group differed significantly from the less intelligent groups (the average and the low) with respect to the ten variables representing ten fields of interest.

368 DE B, SINHA L N K, SINHA P: Induced goals as determinants of verbal learning in high, average and low intelligent pupils. Indian Journal of Experimental Psychology 1972, 6(2), 81-5. 14 ref.

The purpose of the study was to examine the effect of abstract goal task and difficult goal task on pupils of different intelligence levels and their learning output. A sample of 60 high school boys studying in 6th and 7th classes were selected on the basis of their scores on Ravens Standard Progressive Matrices Test (1965). The sample was divided into high, average and low intelligence groups accordingly. These subjects from the three groups were equally distributed into two experimental conditions involving a difficult task and an abstract goal task performance. The results are that: 1) the goal setting behaviour has significant association with the intelligence of the subjects; and 2) difficult task enhances the possibility of better memorisation even in the low intelligent group.

369 DEVAKI P, RAMAMURTI P V: Social responsibility and student absenteeism. Journal of the Indian Academy of Applied Psychology 1971, 8(3), 73-5. 11 ref.

The study has been aimed at finding out the relationship between social responsibility and student absenteeism. It was hypothesised that irregular students would not be different from regular students in social responsibility. The total students of a college were divided into sub-groups of classes and within each class the subjects were arranged in increasing order of days absented in an year. One hundred and twenty four individuals of the first quartile constituted regulars and another 124 students of the fourth quartile irregulars. A forty four items social responsibility scale adopted by Ramamurthy was administered to these 248 students in small groups. On analysing the data it was found that there were significant differences in social responsibility, the regulars being more socially responsible than irregulars. The hypothesis was thus rejected.

370 GUPTA V P: Body boundary images and personality characteristics as measured by sixteen personality factor inventory. Journal of the Indian Academy of Applied Psychology 1972 8(3), 63-6. 5 ref.

An investigation has been made to find out the personality characteristics of 50 male adults who had passed matriculation or equivalent examination, with different body image boundaries - barrier and penetration. Rorschach Ink Blot test and the Hindi version of Sixteen Personality Factor Inventory of Cattell et al, adopted by Kapoor and Jalota were administered to the subjects. The findings are: 1) individuals belonging to barrier group are significantly more emotionally stable and mature, calm, have realistic attitude towards life activities, competitive, assertive, self-assured, independent minded, persistent, responsible, conscientious, attentive to people, adventurous, like to meet people, genial, foresighted, active, and self controlled as compared to penetration group; and 2) individuals of penetration group are significantly more cultured, insecure, anxious, sensitive, depressed, well-informed, inclined to experiment with problem, tense and excitable than individuals of barrier group.

371 HAFEEZ A, SHANTHAMANI V S: Study of the relationship among need achievement, introversion, extroversion and neuroticism. Journal of the Indian Academy of Applied Psychology 1972, 9(1), 28-32. 24 ref.

The investigation aims at: i) studying the level of n-achievements in two groups of engineers viz., graduates and diploma holders, and ii) finding the relationship among need achievement, extroversion, introversion and neuroticism. A sample of 150 engineering graduates and 233 engineering diploma holders was administered a modified

version of Mukherjee's Sentence Completion Test, and a personality inventory developed by the authors. The results revealed that 1) there is a significant difference between graduates and diploma holders in their need achievement scores, the graduates being superior to the diploma holders; and 2) there is a definite relationship between need achievement and personality.

372 JAYAGOPAL R: Problem solving activities and psychomotor skills of three ethnic groups in two junior high schools of U.S.A. Journal of the Indian Academy of Applied Psychology 1971, 8(3), 67-72. 16 ref.

Three ethnic group children, 30 Spanish American students, 30 Navajo Indians and 29 Anglos, studying in two junior high schools of Albuquerque City, New Mexico, were administered three sub-tests of Wechsler Intelligence Scale for children viz., block design, object assembly and coding to find out the relationship between their problem solving abilities and psychomotor skills. These tests represented problem solving situations used as criterion measures and certain psychomotor skills - perception, visual set, emotional set, physical set and fine motor acts used as predictor variables. Analysis of the data revealed a significant relationship between problem solving abilities and psychomotor skills for all the subjects irrespective of the racial stock. Based on the study the following suggestions have been made: 1) emotional set being related to self concept of pupils, improvement of self concept should be the main goal of pedagogy; 2) inservice programmes be organised for teachers to familiarise them with various psychomotor skills; and 3) balanced curriculum with cognitive, affective and psychomotor skills be constructed.

373 KAKKAR S B: Altruistic interests of school children. Journal of Education and Psychology 1972, 30(1), 14-18. 4 ref.

The present study was made to measure the degree to which children in grades III, V and VII demonstrate feelings of sympathy and concern for people in a series of physical locations progressing from near to far. The sample consisted of 150 children attending an elementary school located in a largely middle class suburb of Jullundur. Thirty children of class III and 60 each of classes V and VII were taken. Their responses to a 'who shall we help' test were analysed. Altruistic interest in the distressed or the needy, wherever they may be, had been clearly expressed by the children of all the three classes. The children in classes V and VII were more emphatic in their desires to help people in need who are afar; there was increase in concern for people farther away between classes III and V. Most of the children at all class levels perceived other countries, shown in distress, as "poor" needing financial help.

374 KOHLI T: Learning as affected by knowledge of results (KR) by different sexes. Journal of Education and Psychology 1972, 30(1), 50-2. 4 ref.

An experimental design involving two variables, precision of KR (B) and frequency of KR (C) was used in this study. The first variable of precision of KR, i.e., telling the subject as to the exact extent of error was in two forms, i.e., no precision (B1) and precision (B2). In order to make possible the uniformity of the second factor of frequency of KR, 3 values of 0%, 50% and 100% frequencies were undertaken with the suffixes of C_1, C_2 and C_3. The sample for the study, selected on the basis of Saidoo's verbal mental ability test, had 45 male and 45 female postgraduate students housed in the Punjab University campus. The Ss were given the task of learning 5 different lists prepared on the basis of 5 different principles. The mean scores in learning for both males and females were calculated under each of the 5 conditions, i.e., B_1C_1, B_1C_2, B_1C_3, B_2C_2, and B_2C_3. There were very insignificant mean differences except in the condition B_1C_2. It has been concluded that on the whole sex differences, if any, were quite insignificant.

375 KUMAR K: Influence of intelligence on the reactions to frustration of school children. Educational Trends 1972, 6(3,4), 37-44. 8 ref.

The relationship of intelligence and reactions to frustration was studied by administering 1) Intelligence Test constructed by Dr. S.S. Jalota et al, and 2) Indian Adaptation of Picture Frustration Study of Saul Rosenzweig by Dr. Pareek covering the areas of reactions to frustration viz., group conformity rating, obstacle-dominance, ego-defence, need-persistence, extra punitiveness, intropunitiveness, impunitiveness, superego pattern of E, and super-ego pattern of I, to a sample of 100 boys and 100 girls studying in class VIII of the urban schools situated in the Jaipur Division of Rajasthan. From the same sample 50 aboys and 50 girls falling above an IQ 110 in the intelligence test formed the supernormal group and 50 boys and 50 girls falling below IQ 110 formed the subnormal group. Analysis of the data has led to the following conclusions: 1) the reactions to frustration of the school children are influenced significantly by their level of intelligence; 2) the groups of subnormal and supernormal boys and also subnormal and supernormal girls differ in their performance on the tendencies of reactions to frustration; and 3) the two groups of sexes at the supernormal level and also at the subnormal level differ in their performance on some tendencies of reactions to frustration.

376 MAHFOOZ A ANSARI: Study of anxiety among school and college students. Indian Journal of Psychology 1972, 47(2), 187, 188. 3 ref.

The sample consisted of 250 unselected male students (100 school students + 150 college students). The ages of the school and college subjects ranged between 13 to 19 and 20 to 30 years, respectively. The revised Comprehensive Test of Anxiety (CTA, Sinha and Krishna, 1971) was used to assess the level of anxiety among the subjects. The mean anxiety scores of the two groups were statistically compared by the t-test. The results showed that anxiety did not change with age.

377 MALHAN N K, SEN A K: Types of errors in memory and the serial position effect. Indian Journal of Psychology 1972, 47(2), 179-85, 12 ref.

The experiment was concerned with different types of errors that subjects made during their learning trials. Thirty post-graduate students of Delhi University within the age-range of 19-21 years were selected for the study. The material consisted of three sets of 15 four-lettered syllables each (viz., meaningful, meaningless and emotional). The visual method of presentation was adopted with the help of a memory drum and written reproduction was taken. The order of presentation of each set was kept constant in all respects. The criterion of learning was three successive errorless reproductions of the list in serial order. The practice effect was counter-balanced by using a cross-over design in the form of ABC, BCA and CAB. The data were analysed with the help of Kolmorov-Smirnov test (Siegel, 1952) and proportion test (Garrett, 1953). The results showed that omission and transposition errors were not influenced by the serial position effect. The only difference observed was in the strength of the omission errors throughout the middle of the series as against transposition errors which were not so widespread, though they also occurred in the middle of the series. However, in both the cases the percentage serial position curve became similar in nature. Substitution and intrusion errors did not occur at all. When omission and transposition errors were plotted in terms of absolute measure, the curve for meaningless words (omission errors) and for emotional words (transposition errors) showed a much more piling in the middle. There were also some differences concerning omission and transposition errors in regard to different serial positions. On the other hand, when omission and transposition errors were expressed as percentage distribution for all the three sets (meaningful, meaningless and emotional), three over-lapping and similar curves were obtained. Thus, the findings are in line with the work of McCary and Hunter (1953) corroborating their hypothesis even with transposition and omission types of errors.

378 MATHUR C N: Age as a factor in noise distractibility. Manas 1972, 19(1), 31-3. 5 ref.

The sample consisted of 50 male and 50 female students drawn from the undergraduate and post-graduate classes of the University of Jodhpur. They belonged to the age-group of 16-24 years. All the subjects were made to work out simple arithmetical calculations under normal and noise conditions. The high and low distraction groups were divided into three age-groups of 15-17, 18-20 and 21-23 years. X^2 test of significance was applied and a significant relationship was found between age and distractibility. In the high distraction group, 22% belonged to age-group of 15-17 years, while only 12% belonged to the age-group of 21-23 years. Thus, distraction was more pronounced in the low age-group than in the high age-group.

379 MUTHAYYA B C: Attitude to children's education - an opinion analysis of villagers in a developmental block in Hyderabad District. Journal of the Indian Academy of Applied Psychology 1972, 9(1), 22-7. 4 ref.

The aim of the study is to find out the attitude of villagers regarding children's education. On the basis of Likert method of Scales, six items pertaining to questions regarding sending children below five years to schools and need for money for education of children were selected. The opinions of 342 males and 342 females belonging to the villages in Chorella Taluk of Hyderabad District, regarding the items were elicited by interview method. The following conclusions have been reached: A majority of men feel that children should be sent to school before they are five years old, that giving education to girls is not a waste, and that sending girls to schools after puberty will reduce the chances of their marriage. A majority of women feel that giving education to children is possible only to people with more money, that girls should not be given as much education as boys and that matured girls should not be sent to school as it is against the traditional practice.

380 NAIR A S: Comparative study of the effect of socio-economic status on verbal and non-verbal tests of intelligence. Journal of Educational Research and Extension 1972, 9(1), 40-5. 10 ref.

It was hypothesized that socio-economic status will correlate higher with scores on a verbal test of intelligence than with scores on a non-verbal test of intelligence. A sample of 398 secondary school students of Kerala was selected giving proportionate representation to these factors - sex of subjects, rural - urban residence, and three educational levels (Standards VIII, IX and X). The Kerala University Verbal Group Test of Intelligence in Malayalam for measuring verbal intelligence, the

Raven's Progressive Matrices Test, Standard Series, for measuring non-verbal intelligence, and the Kerala Socio-Economic Scale, for measuring socio-economic status were administered to the Ss. The results mostly substantiated the hypothesis. The correlations obtained with the verbal test were significantly higher than the correlations obtained with the non-verbal test for the total sample and for the two sub-groups - girls and urban. However, the corresponding differences were not significant for the two remaining sub-groups - boys and rural.

381 NALINI DEVI G, BASAVANNA M: Study of interests in relation to intelligence and socio-economic factors among women college students. Indian Journal of Applied Psychology 1972,9(2), 55-60. 11 ref.

The aim of the present study was to find out the relationship of interests to intelligence and socio-economic status. Army General classification Test (AGCT) which measures general ability and Thurstone Vocational Interest Schedule along with the socio-economic status questionnaire were administered to two hundred and fifty girl students. The following conclusions were drawn: 1) individuals with high intelligence scores expressed interests in Physical and Biological Sciences while subjects with low intelligence scores were interested in Linguistic, Persuasive, Humanitarian, Art, and Music areas; 2) there is statistically significant difference between the group with scientific interest and the group with social interest; 3) subjects coming from educated families expressed interests in Biological Science, Physical Science and Linguistics while subjects coming from uneducated families were interested either in Linguistics or in Biological Science; 4) the majority of students whether brought up in urban or rural areas preferred Biological Science and Physical Science in that order; 5) the majority of individuals whose family members were working as engineers tended to have interests in Physical Science, while the subjects coming from the families of medical men and teachers prefer Biological Science and Linguistic areas respectively; 6) the majority of students in the present sample came from the upper and lower middle class families and they were interested in Biological Science, Linguistics and Physical Science in that order.

382 NATARAJAN P: Study of the relationship between preparatory set and anxiety. Indian Journal of Experimental Psychology 1972, 6(2), 71, 72. 13 ref.

The preparatory set among a sample of 30 high school boys in Madras City was measured by administering brightness, motion and size perception tests. Taylor's Manifest Anxiety Scale was administered to the sample to get a measure of anxiety. The results indicated a significant negative correlation between Manifest anxiety and preparatory set.

383 NATARAJAN V: Student teachers' preference for teaching profession. Journal of Educational Research and Extension 1972, 9(1), 23-31.

All the 125 student-teachers of Government Training College, Vellore who were present on March 15, 1971 were administered a questionnaire prepared with a view to collecting the needed information. Most of the Ss were found to be in the low income group. Only 19.2% of the group genuinely preferred to become teachers. The remaining wanted to change their preference, if possible. Only 38.4% of the sample would approve if their children choose teaching profession. The majority wanted their children to become either doctors or lawyers or engineers.

384 OJHA H, SINGH R I P: Sex differences in dependence proneness and prestige suggestibility. Manas 1972, 19(1), 9-15. 16 ref.

The study was made on 100 male and 100 female students of Bhagalpur University. Students belonging to very high and very low income groups were not included in the sample. Dependence proneness was measured by a Dependence Proneness Scale (Sinha, 1968), consisting of 20 items. Prestige suggestibility was measured through an experimental procedure conducted in three sessions, following the pattern of Sinha and Ojha (1963). The results showed that the females were more dependence prone and suggestible than the males. It has been suggested that more elaborate studies taking into consideration the sex differences in child rearing practices should be planned to study the dependency behaviours.

385 PRAHARAJ G S: Study of sex and intelligence and monotony in continuous mental work. Indian Journal of Applied Psychology 1972, 9(2), 80-1. 6 ref.

Thirty male and 40 female undergraduates were selected and administered Progressive Matrices Test (Adult form). After an interval of 3 hours they were given the following instructions: Multiply the first digit with the second. Leave the first digit of the result and multiply the second digit with the third. Again, multiply the second digit of the result with the fourth digit of the column; write the second digit of the result on the right side of the fourth digit and cancel first digit. Again, begin from the second digit of the column and go on multiplying following the same principle. A seven point scale which was divided into i) very fresh, ii) fresh, iii) slightly fresh, iv) neither fresh nor fatigued, v) slightly fatigued, vi) fatigued, and vii) very much fatigued was given to the students after completion of each trial and were asked to express his feeling of

fatigue in terms of the scale. When each student rated his feeling to be very much fatigued the experiment was stopped. The study led to the following conclusions: 1) the product moment coefficient of correlation between scores on the Progressive Matrices Test and the number of trials required to experience strong feeling of monotony was .68; 2) males and females differ significantly in mean trials required to experience monotony.

386 **PRAMOD KUMAR, KRIPLANI N D:** Study of differential effects of social situations on individual behaviour. Indian Journal of Experimental Psychology 1972, 6(2), 78-80. 5 ref.

A sample of 20 male students of class X of Sri Mahesh Multipurpose Higher Secondary School, Jodhpur was given two tasks - a mental task comprising simple arithmetical problems and a mechanical task comprising substitution of numerical values under each alphabet in a given type. The experiment was conducted in the following conditions: 1) together situation (working in presence of others); 2) alone I situation (working in separate rooms but at the same time); and 3) alone II situation (working all alone differentially). The results indicate that: 1) together situation failed to affect the performance of the subjects on the mental task; 2) the conditions alone I and alone II significantly affected the performance on the mental task; 3) the subjects tended to perform better when required to work at the same time, but in separate rooms, than when required to work singly at different times; 4) the subjects tended to perform better in mechanical task while working in presence of others than working in separate rooms though at the same time; 5) the two alone conditions failed to affect the performance of the subjects on the mechanical task.

387 **PROMILA VASUDEVA:** Sex differences among post-graduate students in their response style. Manas 1972, 19(1), 17-21. 12 ref.

It was hypothesized that in comparison to Indian female students, the male students would make extreme responses more frequently as the two groups do not have identical treatment and social environment. The sample consisted of 1116 post-graduate students (females 593, males 523) from various departments of the Punjab University, Colleges of Education, Chandigarh and Patiala. The C-R Scale constructed and standardized by Nath (1967) to measure conservatism - radicalism among post-graduate students was administered to the sample in small groups of 15 to 20. Only the uppermost and lowermost 10% subjects were chosen from the total sample for the analysis. The results substantiated the hypothesis.

388 SHARMA K L: Cross-cultural comparison of stereotypes towards older persons. Indian Journal of Social Work 1971, 32(3), 315-20. 5 ref.

Two hundred unselected students (100 males and 100 females) of post-graduate and undergraduate courses of the Rajasthan University were administered the attitude towards old people questionnaire (Arnhoff et al 1964). The area-wise and overall stereotypes of Indian students were compared with the stereotypes of student samples of the countries viz., U.S., Japan, Puerto Rico, Sweden, Greece and England (Arnhoff et al 1964). The cross-cultural comparison revealed that Indian students had overall more negative stereotypes towards the older persons than U.S. Greeks were found to consider older people more conservative, less active and more interfering than Indians. The area-wise difference between Indians and others was also noticed. The comparison revealed that all these cultures had negative stereotypes towards older people in the areas of conservatism, personality and interference.

389 SINGRU M: Relationship between achievement motivation and test anxiety. Journal of Education and Psychology 1972, 30(1), 11-13. 4 ref.

The sample for the present study consisted of 62 students (21 girls and 41 boys) studying in a local high school. The Ss were administered the Mukherjee's Test Anxiety Inventory and the Mukherjee's Sentence Completion Test. The responses were scored according to the respective keys. The product-moment correlation between the two measures showed a negative relationship. The results of the t-test further confirmed it. Thus, the study was in conformity with the findings of McClelland, Atkinson and others that those with low n-Ach were anxious about failure and hence motivated to avoid failure.

390 SINHA D, DHAWAN N: Nature of communication, intelligence, suggestibility and attitude change. Journal of Indian Academy of Applied Psychology 1971, 8(3), 53-8. 18 ref.

The investigation was aimed at studying the attitude change as related to the nature of communication, intelligence and suggestibility of persons. One hundred students of both sexes and studying in B.A. constituted the sample. The following tests were administered to the sample: 1) an attitude scale consisting of 55 statements regarding a controversial issue (English-Hindi controversy); 2) two types of persuasive communication tests containing two passages, one containing one-sided argument in favour of Hindi as the medium of instruction in higher education and the other containing arguments in favour of and against Hindi as the medium; 3) Raven's Progressive Matrices Test of Intelligence; and

4) a suggestibility test called Judgement of Odour test comprising odours presented in 11 test tubes for the subjects to smell and record. Results indicated that subjects with high intelligence and low suggestibility showed less change in attitude as compared to subjects with low intelligence and high suggestibility. One-sided argument resulted in more congruent change whereas the two-sided argument showed greater incongruent change.

391 **SINHA D, VARMA A K:** Anxiety and perceptual reaction time. Indian Journal of Experimental Psychology 1972, 6(2), 67-70. 15 ref.

The study was aimed at finding the effect of anxiety on the perceptual reaction time. Sinha Anxiety Test (1961) was administered to a sample of 205 undergraduates of Allahabad University. On the basis of their scores on the test, 53 subjects in the high anxiety group and 48 subjects in the low anxiety group were selected. The differential in reaction time of the subjects was measured by a specially devised experiment. The findings are: 1) high anxious individuals were significantly slower in their reaction as compared to those who had low level of anxiety; 2) girls were found to be reacting slowly in comparison to boys; 3) more unstructured responses were given by high anxiety group whereas low anxiety group presented more structured responses.

392 **SINHA N S P, KRISHNA K P:** Study of relationship between caste prejudice and anxiety. Manas 1972, 19(1), 55-8. 8 ref.

A sample of 120 male postgraduate students of Magadh University was administered the Caste Prejudice Scale (Singh and Krishna, 1971) and the Revised Comprehensive Test of Anxiety (Sinha and Krishna, 1971) in order to test the contention that caste prejudice bears a significant and positive relationship with anxiety. The findings did not confirm the contention as caste prejudice and anxiety were found as independent variables. However, the validity of the Caste Prejudice Scale was suspected.

393 **SINHA R:** Internal versus external control of reinforcement as related to sex and achievement values among high school students in India. Journal of Indian Academy of Applied Psychology 1972, 9(1), 1-9. 34 ref.

The study aims at finding the relationship among achievement value orientation, sex and locus of control dimensions of adolescents. The level of achievement value orientation of verbalised need for achievement (V Ach) and locus of control of school children (55 girls and 30 boys) with matched mean age,

education and socio economic position were assessed by administering Mukherjee's Sentence Completion Test and I-E Control Scale respectively. The findings are that: 1) the subjects with high level of v Ach are more of the internally reinforced type as compared to subjects in the low v Ach group, particularly in the area of system modifiability; 2) though girls have belief in general ideological control, they have shown significantly greater 'externality' on the 'personal control' dimension. Implications for further research on the factors underlying sex-differences in different dimensions of locus of control concept has been made.

394 SIVADASAN PILLAI K: Rural-urban difference in mathematical aptitude of secondary school pupils. Journal of Educational Research and Extension 1972, 9(1), 12-16.

A sample of 1100 pupils of class X was selected from various schools in Kerala using the stratified random sampling procedure. The Mathematical Aptitude Test prepared by J. Manikantadas of the Kerala University was administered to the selected pupils during September/October 1971. The results clearly indicated that urban boys and girls were superior to their counterparts in rural areas in mathematical aptitude.

395 SRIVASTAVA G P: Personality traits differences among disciplined and indisciplined high school students. Manas 1972, 19(1), 23-9. 10 ref.

The sample for the study consisted of 30 disciplined and 30 indisciplined students drawn from three Secondary schools in Varanasi. The Jr. Sr. High School Questionnaire (Hindi version of HSPQ, 1965) was administered to the sample in batches of ten each. The two groups did not differ significantly on the factors - reserved vs. going, affected by feeling vs. emotionally stable, sober vs. happy-go-lucky, shy vs. venturesome, tough-minded vs. tender-minded, placid vs. apprehensive, group dependent vs. self-sufficient, and undisciplined self conflict vs. controlled. The scores on factors - less intelligent vs. more intelligent, obedient vs. assertive, phlegmatic vs. excitable, expedient vs. conscientious, vigorous vs. doubting, and related vs. tense were significantly differentiating the two groups. These factors which distinguished the two groups are mainly dynamic factors of personality having greater environmental impact. It has, therefore, been concluded that suitable modification in the school environment may mould and reshape the personality of the indisciplined students.

396 Students' perception of social work. Indian Journal of Social Work 1971, 32(3), 321-31.

The respondents in this study were 440 college students of Bombay. The findings obtained from both the open-end question and ranking of given goals (a closed question) revealed that social work students formed a distinct group, obtaining a considerably higher score in ranking as well as in understanding the term social work. In the case of non-social work students, the respondents with high scores in understanding the term social work did not necessarily obtain high scores in ranking also, as expected. Trends were identical regarding the following characteristics of the study: a) male students scored lower than females; b) with increasing family income, the level of understanding also increased (less clear in case of ranking). Trends were reversed regarding the following characteristics: a) with increase in age the level of understanding increased; however, in ranking, the youngest group got the highest score; b) students with social work experience obtained higher scores on the opinion question than students without experience. In ranking, the opposite was true. It has been suggested that more importance should be given to the findings obtained from the open-end question.

397 SYED NEHAL AKHTAR, SHEIKH KAFILUDDIN: Hostility and social conformity. Manas 1972, 19(1), 1-7. 23 ref.

It was hypothesized that hostility would be inversely related to conformity. Hindi versions of the Bernberg's (1959) Human Relations Inventory (HRT) and a short form of Buss-Durkee Hostility Inventory (BDHI) were administered to 184 undergraduate male students of Bhagalpur University. The coefficient of correlation between the scores on the HRI and the BDHI as well as the difference between the means of the HRI scores of high and low hostility groups were statistically significant. Thus, the hypothesis was substantiated.

398 THAKUR G P, THAKUR M: Study of the effect of economic status on students' attitude towards family planning. Indian Journal of Applied Psychology 1972, 9(2), 83-5. 2 ref.

Seventy five undergraduate male students of Bihar University, Muzaffarpur were divided into three sub-groups of 25 each, namely high, low and average income groups on the basis of their parents' income. A Likert type five-point attitude scale, prepared for the purpose was used to ascertain students' attitude towards family planning. The results indicated that 1) economic status of the students has a significant influence on the attitude of students towards family planning; 2) students belonging to the high income group comparatively do not favour the programme whereas students belonging to the low income group and the average income group favour the programme.

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results indicated: 1) the increment in letter cancellation was a function of higher level of ego-involvement; 2) the sex and personality had no significant effect on letter cancellation task; and 3) introverts improved their persperformance on letter cancellation more when they were ego-involved.

402 VIDHU MOHAN, SUKHON G: Effect of stimulus modality and KR on estimation of short durations of time. Indian Journal of Experimental Psychology 1972, 6(2), 73-5. 9 ref.

Thirty Punjab University female students of humanities and sciences were asked to estimate 3,5,7,9 seconds of time under visual/tactual - kinesthetic and auditory/tactual-kinesthetic modalities. There were 5 initial trials for all 8 conditions (4 durations x 2 modalities) without any Knowledge of Results (KR). These were followed by 20 acquisition trials when 100% KR was administered for all the conditions. The findings are: 1) the visual modality yielded higher acquisition rates than the auditory; 2) the length of duration of estimated time had a significant effect on the rates of acquisition; and 3) a U-shaped trend was obtained with the highest acquisition rates for 3 and 9 and lowest for 5 seconds.

EDUCATIONAL SOCIOLOGY

403 KAMAT A R: Educational situation. Economic and Political Weekly 1972, 7(26), 1229-37. 13 ref.

A social analysis is made of the educational situation in the country. There has been a great deal of expansion of education at all stages and sectors, and in fact, the targets of enrolment and turnout have been overfulfilled in certain sub-sectors like higher education, including engineering and technology. But the whole educational structure betrays serious weaknesses of a fundamental character such as non-fulfilment of constitutional obligation of universal primary education, growing illiteracy, fall of educational standard, etc. A number of surveys clearly show that the spread of literacy and education is much more in evidence among the affluent and socially advanced sections of society. Elite formation during the post-Independence period is, therefore, very important for assessing the educational situation. In terms of social differentiation the products of the educational system can be briefly described as follows: a) emergence and consolidation of a super elite at the top - consisting of the old urban intelligentisia and a sprinkling of the more enterprising elements of rural stock - in technology, industry, business and in the higher echelons of the bureaucracy and the defence services; b) formation of a fairly large common or

regional elite consisting of the urban middle and lower salaried groups, skilled and semi-skilled technicians and professionals and of the newly emerging rural groups; and c) continuance of illiteracy in the rest of society at the base of the pyramid with a slow and sluggish movement among small sections towards basic literacy and rudimentary education. A satisfactory solution of the educational problems in the country cannot be visualised in the absence of thorough-going changes in the socio-economic situation.

EXAMINATION AND EVALUATION

404 GANGAPPA M A: Improving essay-type examinations. Educational India 1972, 39(1), 5-8.

The major defects of the essay-type examinations have been described as inconsistency and unreliability of the question papers, inadequate sampling of content in the area of achievement that is to be measured, and the practice of providing over-all options in the test papers. The following suggestions have been put forth for improving essay examinations: 1) stating the questions in clear, unambiguous and understandable words; 2) increasing the number of short-answer type questions; 3) abolishing overall options; 4) increasing the content coverage; and 5) providing a key for scoring the answers along with the question paper by the paper-setter to make the examinations more reliable and dependable.

405 INDIA. MINISTRY OF EDUCATION AND SOCIAL WELFARE, CENTRAL ADVISORY BOARD OF EDUCATION: Report of the Committee on Examinations. New Delhi, National Council of Educational Research and Training, 1971. Various Pagination.

The prevailing systems of examination in the country and the manner in which they give rise to malpractices have been reviewed. Scientific methods of conducting examinations with specific reference to the purpose for which they are meant have been discussed to show that improvements in the schemes of examination can themselves reduce malpractices. Utilising the information thus furnished, long term and short term measures have been suggested. In describing long term measures, no specific reference to malpractices has been made because if the measures suggested are adopted, malpractices might go down automatically. While making suggestions, the limitations imposed by the funds available have been constantly kept in view. Recommendations have been made for A - legislation by the State and Central Governments for ensuring safety of the examiners and invigilators; B - conduct

of examinations in more scientific manner; C - use of examination results for recruitment to services and admission to professional institutions; D - earmarking funds separately for guidance and studies and research on examinations while preparing budget for education; E - continued research on examinations; F - encouragement of novel ideas for organisation and conduct of public examinations.

406 RAY S K: Instructional objectives of education ignored. Swarajya 1972, 17(12), 14.

The following suggestions have been made: 1) making teaching and evaluation continuous and simultaneous as far as practicable; 2) abolishing the Pass or Fail system and instead giving detailed results in different subjects so that employment opportunities are not jeopardized due to failure in an unconcerned subject; 3) allowing students to appear for examination at a time in as many subjects as they desire; 4) introducing five-point grading in the place of hundred and one point cardinal marking; 5) changing the design of question papers; 6) introducing an all-India graduate record examination to select the best among the graduates; 7) decentralizing the administration of examinations as far as practicable; 8) reserving certain percentage of marks for internal assessment.

EXTRA CURRICULAR ACTIVITIES

407 COMMEN T K: Nature and types of student voluntary associations in Delhi University. New Frontiers in Education 1972, 2(2), 16-24.

The Delhi University Students' Union (DUSU) is the official student body recognised by the university authorities as the spokesman of student interests. But, most of the voluntary associations are initiated by the students who belong to colleges not affiliated to DUSU. The working of the voluntary associations - a) political associations, b) cultural associations, c) social service associations - in the campus has been discussed. In the light of the discussions made, the following observations are made: i) lack of opportunities to assume leadership positions at the university level leads to the formation of voluntary associations; ii) participation in these associations is motivated not so much by the need for self-expression, reinforcement of we feeling or primary group ties; iii) it is unlikely that one association will and can cater to the needs of all who are interested in pursuing common interests; iv) the most frequently found voluntary associations are those with political orientations; even the cultural associations may have political overtones; v) two

important channels for mobilising students are politics and cultural activities; vi) there is a tendency on the part of 'prestige colleges' to monopolise membership in voluntary associations; vii) the associational involvement may be monopolised by students with elite background.

FINANCE

408 MISRA A: Education and finance. Gwalior, Kailash Pustak Sadan, 1971. viii, 335p. 88 ref.

This book contains essays by the author on education, educational planning and finance. This is divided into 2 parts. Part I - Education deals with the topics 1) education in India; 2) educational policy in India; 3) education for National and emotional integration; 4) education for international understanding; 5) literary appreciation; 6) teaching of languages; 7) problems of teacher education; 8) teacher education and defence needs; 9) social education scheme; 10) education for enlightenment and living; 11) audio-visual aids in social education; 12) Whitehead's philosophy of education; Part II - Finance includes 1) new facts and concepts; 2) research and financing of education; 3) research needs in the financing of education; 4) techniques of analysing data of educational finance; 5) educational planning; 6) educational plans in India; 7) educational finance in India; 8) educational balance-sheet; 9) private enterprise in education; 10) resources for education.

409 PANDIT H N: Financing of school education - progress and problems. Economic and Political Weekly 1972, 7(31-33), 1653-60. 11 ref.

An attempt is made in this article to review the progress of expenditure on school education and the trends in contributions from private and public sources of finance. The discussion focuses on the variations in cost per pupil in different types and stages of school education, the place of educational expenditure in budgetary allocations of Central and State Governments, the growth in teacher salaries, the estimated burden of private non-tuition costs, and the role of private enterprises in school education. The review makes it evident that, in future, education will have to compete more for resource allocations with other developmental sectors such as health, irrigation, power, etc., both at the Central and the State levels. Moreover, within the educational sector, school education will have to compete more with higher education. The share of school expenditure in total educational finance is already showing a declining trend. The scope for private finance for schools, as seen here, is also very limited. Therefore, future

growth in school education will depend on successful experimentation with ways and means to reduce costs by introducing better management techniques, on exploration of possibilities for public support, and on education being made more development and growth oriented.

FORMS OF EDUCATION

410 GURUGE A W P: Open university - relevance to Indian context. New Frontiers in Education 1972, 2(2), 49-62.

The relevance of the concept of the open university in the Indian context has been examined. The philosophy of the open university, its openness as to the people, places, methods and ideas, etc. have been discussed. The following suggestions have been given: 1) the open university has to undertake both rescue mission as well as remedial mission in the Indian context; 2) it is best to start with an open-door admission policy; 3) there should be a single institution, situated in a single location catering for the entire nation; 4) it should set the pace in the search for and the application of innovations in the realm of teaching and learning, and demolish the citadels of conservatism in higher education. The open university should be seen as an independent, high-powered, well-staffed and adequately financed organization. It should not be inferior to any other seat of higher learning on account of legal, administrative or financial limitations. There is no need for an experimental project. There is enough evidence on the relevance and workability of the open university and a full-fledged institution can safely be established to remedy some of the major educational ills of India.

GUIDANCE AND COUNSELLING

411 GAUR J S: Role of guidance in school discipline. NIE Journal 1972, 6(3), 29-32.

In guidance for school discipline, the idea is that the child is not subjected to an external force but willingly accepts the direction of a person whom he perceives worthy of his admiration and loyalty. The background factors giving rise to behaviour problems have to be explored. If the problems are traced back to home adjustment, the teachers and school counsellors should make themselves aware of the child's home adjustment, help the child to understand himself/herself better, help the parents understand how their attitude affects the child's adjustment, and

provide the child with social experiences in which the child feels successful and accepted by others. If the school adjustment is the cause of the behaviour problem of the child, the teachers must share the responsibility. The guidance programme should be based on mutual respect between adults and young people. Standards set up by adults must take into consideration the ability of the child to live up to them. Children who have a secure place in their peer group are more ready to make the adjustment necessary during adolescence. School teachers and counsellors can help them to know about themselves regarding this area of their personal adjustment.

412 JUSTA H R: Educational guidance and manpower planning. NIE Journal 1972, 6(4), 38-43.

The role of guidance programmes in identifying and utilizing manpower talents of the country has been underlined. The planning of educational system requires a careful selection of pupils into colleges on the basis of their aptitudes and in accordance with the demands in the various professions. Alternate training programmes should be provided for those who are not admitted to colleges. Diversification of occupations and of professional and vocational training and an effective liaison between employment exchanges and educational authorities are essential. The educational and vocational guidance has, therefore an important role to play in the conservation and characterisation of human resources. The guidance movement should i) undertake training programmes for teachers, ii) find out the potentialites of youth through psychological tests and other techniques and iii) assist in finding vocations suited to individuals. The programmes should form an integral part of the educational system and undertake research and training programmes on a larger scale for the country as a whole.

413 SAXENA G P: Vocational guidance in the Indian context. Yojana 1972, 16(13), 520, 521.

It has been contended that the need for vocational guidance is greater in a developing country like India where literacy rate is not high and knowledge about the world of work is meagre and vocation not only means wage employment but also self-employment. The following suggestions have been made for improving the programme of vocational guidance in India: 1) adopting a two stage guidance programme viz., career or occupation information service, and psychological and guidance services in schools and at labour exchanges; 2) instituting a permanent cadre of Vocational Guidance Officers who should be trained professional guidance workers; 3) under the existing circumstances, limiting the activities of

Employment Exchanges to the dissemination of occupational information; 4) if the concept of professionally trained guidance workers is not accepted by the administration, transferring counselling work and psychological services to Education Departments where there is still emphasis on professional cadre; 5) holding regular guidance classes and tests in schools; 6) at the school leaving stage, conducting a joint interview of applicants by Career Masters, School Psychologists and Vocational Guidance Officers; 7) inviting guardians also to the counselling sessions; 8) entrusting Guidance Officers of Employment Exchanges also with placement work in respect of apprentice trainees in various industries or in training institutes.

HIGHER EDUCATION

414 ABRAHAM A S: Universities in India. Times of India 6 July 1972, p.6, cols. 3-5. 1200 words.

Although there have been diagnoses made of the ills afflicting higher education in India, very little research has been conducted into specific problems of individual universities and colleges. Rapid expansion has saddled even the traditional universities - Calcutta, Bombay and Madras - with the same problems of indiscipline, overcrowding, poor student-teacher ratio, etc. Founding of educational institutions by businessmen and private trusts has been one of the causes of fall of standards. The universities have not been able to resist the opening of new colleges for a variety of reasons. The UGC has only limited powers in this regard. Excessive dependence on Government grants by universities affects their freedom to run their own affairs. The lack of university autonomy can be traced to structural, social, economic and political causes. The remedies for this would include the decentralisation of power, altering the composition of bodies like the senate to give teachers more say in decision-making, giving Principals a freer hand, and providing for consultation at all levels. It is regrettable that the suggestion of creation of autonomous colleges has not been implemented by most of the universities.

415 BUTLER: Survival depends on higher education. New Delhi, Indian Council for Cultural Relations, 1971. 42p.

In this Azad Memorial Lecture delivered in March 1970, the author opines that education should receive as much importance as the defence of a country. The importance of higher education to developing countries is stressed. The need to find a compromise between the greatly expanding role of the State, and the freedom

and diversity and equality of opportunity which are necessary ingredients in any educational system, the danger of universities remaining in their own ivory towers, how to save general education and its values within a system where specialization is necessary are the various aspects which have been discussed. It is felt that the more the higher education courses are job-oriented, the less there will be of student unrest. Adult education, open university, idea of an independent university, and academic freedom are other aspects discussed in the second part of the lecture. It is observed that university freedom is best maintained by keeping the universities at one remove from the Government.

416 CHAITANYA: Restructuring higher education. Assam Tribune 26 September 1972, p.4, cols. 3-5; p.7, col. 5. 1100 words.

The task force on university education set up by the Planning Commission has recommended the following for inclusion in the Fifth Plan programme: 1) admission to university courses should be diversified into different channels like regular colleges, evening colleges, correspondence courses; 2) admission at the post-graduate level should be selective; for purposes of research, postgraduate colleges should be grouped wherever possible, and universities should sponsor postgraduate centres and provide adequate facilities by way of staff; 3) emphasis should be laid on improvement in teaching and on research by providing facilities, conducting orientation courses to teachers, modifying curricula, improving evaluation procedures, etc.; 4) with regard to the structural pattern to be developed at the higher education level, a total of 15 years of education should lead to the first degree honours and a further two years to get an M.Sc degree; and for the first degree pass, the duration should be 14 years. The following observations are made with regard to the recommendations: a) the diversification of education will lead to the aggravation of educated unemployment; b) multiplying universities and post-graduate centres might lead to fall of standards; c) curriculum modification should be done in consultation with industry, and the university research should be directed to solving the various problems faced by society; d) efforts should be made to shorten the duration of the courses and to increase the content of education.

417 DICKINSON R D N: Christian college in developing India, a sociological inquiry. Madras, Oxford University Press, 1971. xx, 370p.

The study has grown out of a joint Roman Catholic, World Council of Churches' interest in evaluating the work of churches in secular development activities - health, education and social welfare. The aims of the present study are to 1) collect

information about the christian colleges in India, in the light of which their regional programmes can be developed more intelligently; 2) promote cooperation and communication among christian colleges; 3) promote research and self-study in individual colleges and groups of colleges; 4) get an overall picture of the christian higher educational effort which would assist in planning for the deployment of scarce material and human resources in the future. The study includes 130 christian colleges. The study has shown that in many respects christian colleges are among the strongest in the nation. However, there is still more room for improvement. Among the weak features of the colleges are: i) the nebulous and diffuse nature of stated goals which offer little concrete guidance for hard administrative decisions, ii) lack of records and empirical information about their operation, iii) lack of administrative training for the Principals, iv) insufficient use of the talents of teachers, v) tendency to be ingrown and localised, vi) little dynamic interaction with the community, etc. It is observed that the Christian colleges can play a creative role only if they have articulate and clear goals in terms of both general principles and concrete achievements to be made in particular locale. This can be achieved only by considering the functional relationships with the various 'publics' to which christian colleges must relate : the Government (Indian Government), the church, the rest of the educational system, the national and local communities to be served, the leaders and teachers of the colleges, and the students.

418 KAUL J N: Development of Indian higher education. Economic and Political Weekly 1972, 7(31-33), 1645-52. 27 ref.

Higher education has expanded rapidly in the country since Independence resulting in overcrowding, worsening of the already unsatisfactory situation with regard to contact between teachers and students, and leading to restiveness among students. A review is made of the process of this linear growth and it is compared with conditions of higher education as they exist in some of the other countries whose example may be relevant for India. Deliberate curbing of the present expansionary process, selection of students for higher education strictly on merit, incorporation of a multiplicity of relevant professional courses including correspondence courses, and a reorientation of the university courses to remove the present accent on theory and underpin the academic curriculum with direct work and production experience have been recommended. It is emphasised that illiteracy is a far more important target for educational planning than has been recognised or provided for till now. Provisions for education have to be guided much more by assessments of manpower requirements and the content of education has to be determined much more by considerations of relevance and usefulness in the overall development of the country.

419 MALIK S C: Relevance of higher education today. Sunday Tribune 17 September 1972, p.4, cols. 3-8. 1500 words.

The need for restructuring educational system involving reforms with regard to curricula, examinations, faculty and department organisation, politicization of the academic profession, denominational institutions, the role of scientific and technological education has been stressed. The system should be revitalized by evolving radical theoretical concepts and be based on sound philosophical principles of education. The qualitative expansion of educational facilities, fallacious comparison of Indian standards with other countries, the lack of social commitment among teachers, students and society in general are some of the causes for hindering the reformation of the educational system. The scheme to bring about a socio-economic and cultural transformation should include the following: 1) eradicating illiteracy; 2) making social service a compulsory subject; 3) reorienting school education to uplift the citizens to a basic subsistence level; 4) training of professional and vocational personnel; 5) restricting the institutes of higher learning to specialised courses of science, engineering, medicine, technology etc. depending upon the needs of the country. Thus, the transformation in the educational system should be brought about by scraping the old system of education, offering the services of the educated youth to villages and setting up experimental institutions for solving problems of illiteracy hygiene etc.

420 MATHIAS T A: Kerala colleges in turmoil. Quest 1972, No. 73, 17-26. 2 ref.

The conflict between the privately managed colleges and the Government of Kerala has been discussed in detail. An agreement was reached by the two parties on August 17, 1972. The main terms of agreement are: 1) the student fees to be levied in all institutions, both Government and private will be the same; 2) these fees are wholly to be remitted into the treasury; 3) the Government undertakes to pay the entire salary bill of the teaching and non-teaching staff of all private colleges; 4) in return, the Government shall have a representative in the five-member committees to be set up for all the private colleges for the purpose of selection of staff and admission of students; 5) in addition to the Government nominee, there will be a Kerala University representative also in the committee for each college; 6) the Government and the University representatives, however, will be chosen by the management of the concerned private college.

421 RAJAGOPAL M V: How's the first autonomous college like? University News 1972, 10(9), 18, 19.

The Silver Jubilee Government College of Arts and Science for talented students to be established by the Government at Kurnool is a major landmark in the history of higher education in India. The students selected to this college on the basis of an open entrance examination will not only get tuition free but also receive a monthly stipend of Rs.100. Though the proposed college does not conform to the pattern of a full-fledged autonomous college as prescribed by the Kothari Commission, the Government of Andhra Pradesh intends to provide in this college all those basic conditions necessary for an autonomous college seeking academic excellence. The college will be a new institution and not an existing one made autonomous, The Government proposes to release the college from its own administrative control and hand it over to an autonomous body. Initially the college will be given freedom with regard to student admissions and staff requirements but gradually it will be extended to matters like curricular framing, examinations etc. It is hoped that barring the right of conferring a Degree, the college will ultimately become a full-fledged autonomous institution.

HIGHER TECHNICAL AND VOCATIONAL EDUCATION

422 CHOWDHRY K, KAKAR S: Understanding organisational behaviour. Bombay, Tata McGraw-Hill, 1971. 670p. 24 ref.

This volume consists of cases in organisational behaviour and readings in behavioural sciences, for use and training of potential and practising managers in India and other developing countries. Each section consists of selected readings to provide a conceptual frame work for the understanding and analysis of the cases included. Most of these cases are drawn from a variety of organisations and reflect the existing situations in India to-day. The cases and readings are selected from the point of view of what is considered relevant to the young managers in the Indian context in order that they may develop a more skilled approach to the understanding and effective handling of human problems in organisations.

423 Technical education / Editorial /. Economic Times 16 September 1972, p.7, cols. 1, 2. 450 words.

The following comments are offered with regard to the draft scheme of the Union Ministry of Education for development of technical education during the Fifth Plan: 1) while consolidation

and qualitative improvement are needed at the postgraduate level and above, complete stoppage in expansion at undergraduate level technical education would amount to taking unnecessary risk; 2) it is more urgent to diversify technical education courses on the basis of disciplinewise projected demands worked out by senior applied economists than to go on admitting more postgraduate students; 3) the move to have at least 1000 postgraduate students in each of the IITs is the right one, but it should be seen that not more than 10% of them undertake fundamental research; the rest should be required to choose subjects and areas delineated by the national plan for science and technology or specifically sponsored by a manufacturing unit; 4) more multidisciplinary combinations need to be offered to undergraduates in engineering and technical colleges; undergraduate students may be allowed to change their choice of subjects even after the third year in a five year course; 5) if shortages and surpluses occur in spite of better planning, one or two-year sandwich courses could be offered for engineering graduates; for instance a mining engineer can turn an electrical engineer after the two-year course.

INSPECTION

424 MAHAJAN J M: Evaluative criteria for supervisors. NIE Journal 1972, 6(3), 24-8.

In order to ensure that the process of supervision remains pinpointed to the objectives, it is desirable that supervisors should evolve a set of evaluative criteria for use in the school situation and self-evaluation. A review is made of the various evaluative criteria that have been developed both in India and the USA. The two kinds of supervisors are: a) the generalist supervisor who supervises building, equipment, human relations, general academic guidance, etc., b) the subject specialist who supervises subject teachers. Since there are more generalist supervisors at work in various States than subject specialists, right now, there is a great need for framing criteria for the generalists. With regard to the format of this evaluative criteria, it is suggested that it should be in the form of a checklist with a scale. The future of school improvement will greatly depend on the quality of these criteria on the one hand and in orienting the supervisors to understand their role and evaluate themselves on the other.

425 NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING, NEW DELHI: Survey of school text books in India 1969-70. New Delhi, the Council, 1971. 247p.

The survey contains the results of an investigation carried out on school text-books in India during 1969-70. In eight chapters supported by facts and figures, the Survey throws light on preparation and review, printing and pricing, number and cost influencing factors and production agencies author and remuneration, nationalisation and approved text-books, and presents the following revealing pictures: 1) there is waste of human resources and heavy financial loss in the production of separate text-books in the same subject for the same class in various languages throughout the country; 2) teaching of mother tongues at the primary stage is provided for in all the States and Union Territories; 3) text-book in the mother tongue is introduced in class 1 in all the States and Union Territories; 4) except in Tamil Nadu, Pondicherry, Jammu and Kashmir, Hindi is taught compulsorily in all States and Union Territories in primary and middle stages; 5) nationalisation of text-books means complete control of all aspects of production by the Government. Except Andhra Pradesh which has nationalised text-books in all subjects for all classes and Kerala which has nationalised the text-books in all subjects for all classes except the non-detailed one, in other States there are both nationalised and approved text-books at the school stage; 6) U.P. was the first State to introduce nationalisation of textbooks in 1942 and the Gujarat was the last in 1969; 7) by and large the reasons advanced by the States for State control of text-books are to improve the quality of contents format; to foster national integration; to keep the prices within reasonable limits and to ensure quick and efficient distribution; 8) the nationalisation of text-books is confined to the primary and middle stages in all the States; 9) the committee for approving text-books usually comprise Educational Department Officials; 10) both nationalised text-books and approved text-books are reviewed with varying procedures; 11) in A.P. and Tamil Nadu all nationalised text-books are printed in Government presses only; 12) prices of nationalised text-books up to primary stage are fixed on 'no profit and no loss' basis in Harayana, Punjab, Orissa and West Bengal; 13) majority of the authors of the text-books have post-graduate degrees (54%) and about 15% doctrate degrees also but there are authors who are under-graduates even.

MORAL EDUCATION

426 MARY R: A new approach to religious education in living and learning. Ahmednagar, American Marathi Mission, (Year ?). 102p.

This handbook contains suggestions for making religious education exciting and relevant to life. It is divided into two parts. Part one: Themes - the use of Life Themes, in which teaching about God is related to everyday life of the children. Part two: Activities - some suggestions for lessons and activities which may help to give a new look to religious education.

PHYSICAL EDUCATION

427 BAHL B S: Sports in schools and colleges. Publishers' Monthly 1972, 14(8), 15-17.

The need for integrating sports with the general educational set up has been emphasized. Some of the suggestions given are: 1) introducing regular sports periods in schools and colleges; 2) providing adequate sports facilities and a large staff; 3) extending these sports facilities to the general public also; 4) expanding sports activities both in quality and quantity at the college level; 5) offering a large number of sports, games and athletic activities so as to cater to the interests of all students; 6) building sports complexes in different parts of large cities; 7) granting due weightage to achievements in sports in university degrees and at the time of selection of candidates for various jobs; 8) forming local sports committees comprising veteran sportsmen and other important persons of the locality, whose responsibility should be to raise funds and organize matches and contests; 9) reserving a part of the library budget for books on sports; 10) strengthening the students health centres; 11) organizing sports activities during vacations.

POLICY AND PLANNING

428 BHATAWDEKAR M V: Economic growth and educational development - lessons from the case of Japan. Economic and Political Weekly 1972, 7(35), 1793-1801. 15 ref.

It is suggested that an analysis of the early stages of development in the history of the advanced nations, comparable to the stages in which the underdeveloped countries find themselves today, will be

of considerable practical use for providing guidelines for the development of the underdeveloped areas. Thus, Japan's educational development during the period 1863 to 1910 has been traced and it is compared with the conditions and targets of some of the Asian countries. The educational sector has been selected mainly because it is one of the sectors in which applicability of economic calculus is found difficult and the danger of fixing over-ambitious targets is ever present.

429 Board wants action on education plan [News item]. Hindustan Times 20 September 1972, p.1, cols. 1, 2; p.12, cols. 7, 8. 900 words.

The Central Advisory Board of Education has recommended centrally-financed immediate advance action on a comprehensive, integrated and large scale programme of educational development under the Fifth Plan. The Board asked its Chairman to constitute a standing committee to assist him in the formulation of the Fifth Plan, in the development of alternative strategies and defining priorities within priorities, and in the discussions to be held with the Planning Commission. The Board endorsed the proposals contained in the working paper on educational development in the Fifth Plan prepared by the Education Ministry. Of the total outlay of Rs.3200 crores envisaged in the education blueprint, the Board proposed that Rs.1600 crores should be spent on primary education. Over-riding priority was sought for universal primary education to all children in the 6-11 age group. The Board felt that all children in the age group 11-14 should be covered by 1980-81 either on a full time or on a part-time basis. The Board suggested that the Planning Commission might set up an expert committee to report on the time schedule for universalization of free primary education upto the age of 14 for adoption by each State. The Board felt that multiple entry to primary and middle school education should be made possible at ages 6,11 and 14. To make this scheme work there is need to adopt a large programme of part-time education. Girls education and use of mass media in education have also been stressed by the Board.

430 Education pattern [Editorial]. Hitavada 21 September 1972, p.4, cols. 1, 2. 750 words.

The Government of Maharashtra's decision to follow the 10-2-3 years pattern of education has been endorsed. The Government has appointed a Committee to suggest ways and means to make the change over to the new pattern smooth. In the new pattern, specialisation would start one year earlier than in the past, that is, the high school studies would begin at class VIII. Care should be taken to provide vocational training to those who wish to terminate their studies after secondary education. The State Secondary Education

Board with regional units to facilitate administration should be in charge of both the secondary and the higher secondary certificate examinations. Very careful planning would be necessary for the conduct of higher secondary classes, XI and XII. All schools should not be converted to higher secondary schools indiscriminately. It is suggested that well-equipped laboratories should be set up to provide laboratory facilities to several higher secondary schools in the vicinity.

431 Education reform in the Fifth Plan [Editorial]. Hindu 17 September 1972, p.8, cols. 1,2. 500 words.

The paper prepared by the Union Education Ministry on the educational programme for the Fifth Plan period points out that the Indian educational system has devoted the greatest attention to the imparting of information, attending to the other two ends of education - teaching of skills and the inculcation of socio-economic values - only casually. The establishment of pace-setting institutions at all levels has been suggested to serve as demonstration centres to other institutions in the neighbourhood and to provide extension services besides providing good education to talented children from the most under-privileged sections. The main structural change recommended to firm up standards consists in introducing a uniform 10 year school followed by 2 years of junior college and 3 years of degree course. Postgraduate education should be organised in specific university centres and in centres of advanced study. Creation of autonomous colleges has been recommended. The importance of the vocationalisation of secondary education and the upgrading of college syllabi has been reiterated. All these suggestions have generally been endorsed.

432 Education for the Seventies [Editorial]. National Herald 15 September 1972, p.5, cols. 1,2. 650 words.

The plan of education prepared by the Education Ministry for inclusion in the Fifth Plan is discussed. It is observed that too many experiments with the system of education should be avoided. Restructuring and modernising school and college curricula is very essential. Work should be given an important place in education. Considerable improvement is possible if there are efficient teachers and better facilities for all schools and colleges. Otherwise pace-setting institutions will not be able to influence other institutions. The Government should give importance to the three phases of development namely, universal provision of schools, universal enrolment and universal retention.

433 Hope for a relevant education [Editorial]. Hindustan Times 15 September 1972, p.7, cols. 1,2. 800 words.

The Ministry of Education has been praised for bringing out a blueprint for educational reform with a programme of action for the Fifth Plan. The White Paper specifies time horizon with a promise of advance action in the remaining 18 months of the Fourth Plan. There is a concern with quality and content of education rather than with numbers. The total outlay envisaged is Rs.3200 crores and the allocation among primary, secondary and university education is rational. Among the major reforms suggested are the modernization, diversification and vocationalization of the curriculum making it more relevant to the environment and social climate in the country, and the adoption of informal education with multiple points of entry. Expansion of part-time education and self-study at higher educational levels, adoption of "seed farm technology" in the creation of model institutions at all levels, inclusion of work-experience in the curriculum, 10+2+3 year pattern of education upto the first degree level, universal enrolment upto the age of 14 by 1980, production of quality text-books, etc. are some of the other proposals made. It is suggested that the Government should make all efforts to include the proposals in the Fifth Plan.

434 INSTITUTE OF APPLIED MANPOWER RESEARCH, NEW DELHI: Forecasting manpower demand and supply - a view of methodology. New Delhi, the Institute, 1972. 44p.

The main objective of the paper is to describe some of the methods of assessment of high level manpower groups for the fifth and subsequent plan periods; this is with a view mainly to assist the formulation of long term national plans of economic development, in particular for the Fifth Plan, now under consideration. These are given separately for a) engineering, b) medical, c) agricultural, d) teaching, e) scientific and f) managerial manpower. An attempt is also made in this context to identify some of the areas in which further research needs to be undertaken on a high priority basis. Methodological issues are discussed keeping in view the general constraints inherent in an exercise of this sort as well as those which are characteristic of the individual manpower group considered therein.

435 JOIN V V: Education in the Fifth Plan, the belated search for quality. Times of India 19 September 1972, p.6, cols. 3-5. 1450 words.

The Central Education Ministry's paper on education in the Fifth Plan put up before the Central Advisory Board of Education is discussed. The programmes for getting drop-outs back to school at appropriate stages, and for ancillary services to help poor

children, such as mid-day meals, clothes, and textbooks, and the creches and pre-school establishments are in the right direction of qualitative improvement. In the creation of model institutions, it is to be hoped that they would be self-selected; that is, out of the freedom and encouragement given to every institution to innovate and experiment, exceptional capability will emerge and be identified. That the large wage differential which now exists between vocationally trained persons at the secondary stage and those educated at the university stage will have to be reduced so that the trend to adopt vocational courses at the secondary stage is strengthened is an important aspect for which much thought has to be given. The Ministry's document indicates three components of the broad general education that the first degree should stand for. Similar formulations are called for in regard to the high school, the higher secondary or the pre-degree levels.

436 MAHARASHTRA. FINANCE DEPARTMENT MANPOWER WING. A basis for occupational education and training in Haveli Tehsil of Poona District. Bombay. Bombay, the Department, 1971. 89p.

It is a part of the Maharashtra action research project on occupational education and training launched by the Education department of the State Govt. and Manpower wing has undertaken the present study of occupational education and training needs of Haveli Tehsil of Poona District. The main object is to identify occupational fields in which the initiation of programmes in occupationally oriented education and training should be seriously considered. Specifically the following four aspects are studied: a) a general study of occupations, b) more detailed study of occupations in the non-agricultural sector, c) a study of school drop-outs and a follow-up study of persons who have received some training. The last part deals with probable areas for training programmes in the context of prospective economic development and consequential manpower requirements. Further, this study is a part of an innovation in methodology for correlating education to manpower requirements and development needs of specific local areas.

437 Pains of education planning, big ambitions, small resources. Times of India 25 September 1972, p.6, cols. 3-5. 1400 words.

The Central Advisory Board of Education considered the Education Ministry's proposals for inclusion in the Fifth Plan. The following points raised by the members of the Board are discussed: 1) there is need to use imaginatively radio and television for dealing with the backlog in educational coverage and for modernising educational practices; 2) if an allocation of the order of Rs.3200 crores for education were not available, it would

be wise to have one or two alternative strategies of development drawn up, and to indicate the priorities within the priorities; 3) the proposed allocation of 100 crores each for higher education, college and university libraries, and buildings is inadequate; 4) higher education should be made self-financing with the State coming in to finance the studies of only the talented poor; 5) mother-tongue should be progressively used as the medium of instruction.

438 PANDIT H N: Pilot projects in education for area development. NIE Journal 1972, 6(5), 15-22.

The deepening inequalities in the development of education and the sharpening area imbalances within different States in the country point out the need for area planning in the field of education. The area planning approach whose aim is to decentralise and broad-base the process of planning should attempt to integrate the educational sector with the socio-economic development of the selected area. Evaluation, both of the process as well as of the products should be made to assess the strengths and weaknesses of the approaches adopted in the implementation and completion of educational programmes. A selective approach in tackling improvement problems is better than spreading limited resources thinly over a large area. The Ministry of Education has selected one district in each State for Intensive District Development Projects and Educational District Development Projects. The successful innovations are to be tried in different parts of the same district and in other districts. The major pilot projects have been developed in three interelated functional areas viz., a) equalization of educational opportunities, b) making education efficient, c) making education relevant. The five stages for implementation of the projects as suggested by the Ministry of Education are - 1) surveys and studies, 2) preparation of project report, 3) implementation of programme in experimental situations, 4) evaluation of pilot projects, 5) universalization of findings. Various pilot projects on the selected area basis have already been started in various States and the NCERT has also entered the field. Hence, there is a need to coordinate and evaluate the experiences and develop a large-scale programme for experimenting with pilot projects in the different parts of the country in a more effective manner.

439 Primary education plan [Editorial]. Mail 24 September 1972, p.4, cols. 1, 2. 1000 words.

The Central Education Ministry's 3200-crore plan of educational development programme for inclusion in the Fifth Plan has been discussed. With regard to the emphasis placed on primary education, it is observed, the severe limitation of available funds and the

impracticability of keeping to the time limit for universalization of primary education should set the makers of educational policy thinking about the value, and even the dangers, of a precipitate rush towards the prescribed goal. Education at any level, and the expenditure thereon should be justified, either by the contribution that the educated individual can make to social life, or by the effectiveness of education in making a better man of the individual. Primary education by itself cannot be capable of doing either. Its value will depend on what society and the individual can build on it. Further, it is argued that there can be no valid claim to an integrated programme if universal primary education is to be assigned a top priority without any reference to what may be made of it. Other aspects of the educational development programme have also been discussed.

440 Remodelling education [Editorial]. Hindu 29 September 1972, p.8, col. 2, 450 words.

The Task Force set up by the Tamil Nadu Government has prepared a perspective Plan for remodelling education in the State. It has suggested a 10-year school course, abolition of pre-university course, introduction of two-year intermediate, two-year degree and three-year honours courses. The 10-year stay in school is to be flexible enough to permit the streaming of students towards vocational courses, while entrance to college is to be strengthened by the use of aptitude tests. The problem of wastage in schools and colleges has been analysed well. The Task Force has suggested out-of-school education which is to be promoted by appointing extra teachers in rural areas, and special schools for adults. To combat wastage, work-centred education has been proposed. However, in the plan of out-of-school education, how the children of the labouring classes are to be given an education, and how to make the education work-oriented have not been spelled out. Another problem would be to link the 14 existing technical high schools to the secondary schools on the one hand and the polytechnics on the other.

441 UTTAR PRADESH. PLANNING DEPARTMENT. MANPOWER SECTION: Chauthi yojanā kāl mem śikṣakoṁ ki upalabhtā (1969-74) (= Supply of teachers in the fourth five year plan). [Hindi]. Lucknow, the Department, 1971. 10p.

Makes a comparative study of supply and demand for the Primary, Senior Basic/Middle and High School teachers of Uttar Pradesh in the Fourth Five Year Plan. The study takes into account male, female, craft teachers and P.T. teachers etc.

442 WOOD G: National planning and public demand in Indian higher education, the case of Mysore. New Frontiers in Education 1972, 2(2), 63-79.

The Government of India, in pursuit of economic growth, has attempted to provide high priority to technological and scientific education to produce the qualified manpower required. But, the study of the development of higher education in Mysore State shows that the Government's efforts have not been entirely successful. The Centre's contribution to agricultural, medical, engineering, and post-graduate education has been considerable. However, in every field except agriculture and postgraduate education, local private effort has been responsible for at least as many new institutions as that of the Central Government and in some fields for many more. The growth in the private sector effort in education has little relation to the Five Year Plans and a great deal of public money has been spent each year to subsidise these institutions. The tendencies towards private management, towards increased number of low-cost colleges of arts, science and commerce, and towards back-country locations are evidence that the State Government has yielded to the public demand, and no politician will oppose it. That is why, despite the aspirations of Planning Commission, and the Education Commission (1964-66), higher education continues to expand rapidly.

PRIMARY EDUCATION

443 G.K. INSTITUTE OF RURAL EDUCATION GARGOTI, DISTRICT KOLHAPUR: An experiment in continuation education for school leavers after compulsory education age limit of eleven - a report. New Delhi, the National Council of Educational Research and Training, 1971. 61p.

This report gives an account of the experimental work done in connection with the running of continuation education classes for school leavers after grade IV. This report gives in detail the curriculum, syllabuses, teaching methods and the organisational problems of such classes which were run under the experiment conducted by the institute in collaboration with NCERT. The main conclusions drawn from the experimental work are given below: 1) it is desirable to start a course in continuation education for school leavers after grade IV, to fill in the gap in their education; 2) the duration of the course in the first instance should be one academic year; 3) the curriculum and syllabus for this course should be as worked out and tried in the continuation education classes under this project; 4) such classes should be held in the evening on part-time basis, and entrusted to local education authorities for management and supervision; 5) teachers doing extra work at those classes should be remunerated on the

basis of work done; 6) visual aids and activity methods should be used; 7) the Department of Education should institute a continuation education certificate to provide an incentive to students for joining these classes; 8) teachers running these classes should be given an orientation on the work, subject matter and teaching methods; 9) it is not necessary to prescribe any textbooks for these classes, but digests of the matter to be taught should be given to students for study; 10) the entire emphasis on the syllabus, teaching methods and work to be done by pupils should be based on rural development in the villages where the classes are conducted; 11) some linking of these classes to the primary education pattern of the area may also be provided for so that students reading in these classes may join primary education classes if they so desire.

444 MIRANSHAH W D: Struggling against the invincible fortress of education. University News 1972, 10(6), 20, 21

Primary education should have a strong qualitative structure to support the superstructures of secondary and higher education. It is essential that compulsory primary education should be implemented and efforts made to solve the problem of drop-outs. Community schools should be established as they provide for part-time education and private study, cover the entire community both in vocational and general education, utilize the local teaching resources, and link their educational programmes to the economic growth of the community and to the national development. As compared with existing primary schools, the community schools will have three distinctive features viz., expansion of student body, expansion of staff and radical transformation of content. However, as suggested by the Education Minister, Prof. Nurul Hasan, model community schools should be devised before launching programmes at national level.

SOCIAL EDUCATION

445 KLINE D: Role of education in population and family planning programmes. Indian Journal of Adult Education 1972, 33(8), 14-17, 19.

Apart from providing normal services, the family planning programmes must influence people by i) providing information of all types and by all means about population/family planning problems, ii) persuading persons to experiment with alternative solutions to population problems and iii) reinforcing

attitudes and behaviour that help in solving population problems. Communications and education are the major means for influencing society in population and family planning programmes. The design of social influence component of a population and family planning programme depends on the following factors: 1) identification of a specific target group of audience to be reached viz. reproductive age groups, non-reproductive age groups and special groups (leaders, policy makers etc.), and an analysis of its characteristics; 2) determination of specific objectives in terms of either informing members of target groups about population problems, or persuading them to consider and choose among alternative solutions, or reinforcing attitudes and behaviour that aid in solving the population problem; 3) selection of targets of influence such as discussions, classroom teaching etc.; 4) determination of the content of the approach taking into consideration demographic, reproductive, cultural and psychological, religious and moral, economic, and political and administrative categories; and 5) determination of the organization to be used (formal, non-formal or mass-media) . The professionals of population and family planning fields should coordinate their efforts to influence people effectively.

SOCIAL SCIENCE RESEARCH

446 INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH, NEW DELHI: Directory of Social Science Research Institutions in India 1971. New Delhi, the Council, 1971. 200p.

It is one of the major responsibilities of the Indian Council of Social Science Research to function as a clearing house of information in respect of all research in the field of social sciences. In fulfilment of this responsibility, one of the programmes undertaken by the Council is the compilation for publication of information in respect of institution/organisations, falling outside the university system engaged in research in the field of social sciences. However, as an exception, a few institutions, such as the Agro-Economic Research Centres at various universities, have been incorporated in this Directory. This provides the following information regarding the institutions: 1) name and address of the institution; 2) year of establishment; 3) head of the institution (name and designation); 4) aims and functions; 5) research projects in progress; 6) publications; 7) library; 8) income and expenditure; 9) staff.

447 CHITNIS S: Education for equality, case of scheduled castes in higher education. Economic and Political Weekly 1972, 7(31-33), 1675-81.

The generous provision of educational facilities for the Scheduled Castes, though laudable, cannot automatically lead to the following assumptions: a) that the facilities provided would be optimally and equitably used; b) that given the opportunity for school and college education, members of the Scheduled Castes would measure up on par with those who are backed by a tradition of formal education; and c) that the policy of reservations would best serve the attainment of equality for the Scheduled Castes. Because experience indicates that these assumptions are unrealistic. In spite of the phenomenal increase in number in the post-matric education of Scheduled Castes, their percentage in higher education enrolment is less than their percentage in the population. There are disparities in enrolment and post-matric scholarship consumption between different States. Inequalities between different castes within the same State is also found in enrolment. They enrol themselves in inferior colleges. The drop-out rate varies between 40 to 80 per cent. Their general level of achievement is very poor. It is therefore suggested that both policy and administration in the matter of the education of the Scheduled Castes should be more critically and purposively geared to remedy the existing defects.

448 SHUKLA P D: Education of the gifted. CENBOSEC News and Views 1972, 8(2), 5-7.

The four categories of gifted children viz., the high achievers, the creative individuals, the social leaders and the rebels have been briefly discussed. Environmental potentials of home and school are the main factors for making children mentally superior. It is essential, that besides providing special programmes for the gifted, the children of socially and economically depressed communities are also helped by the organisation of special and additional coaching classes, the appointment of competent teachers, and the provision of mid-day meals, boarding houses, educational tours etc. Effective educational and vocational guidance organizations should be established to spot the gifted and to provide guidance with respect to their future careers and studies. Schools of All-India character following the syllabus of the Central Board of Secondary Education have a special responsibility in catering to gifted children. Such schools could teach higher syllabus than the minimum prescribed by the Board. They should offer enriched programmes of cocurricular activities and help their pupils to develop in accordance with their aptitudes.

449 SRIVASTAVA L R N, LAL A A C, LAL P: Identification of problems of Saora of Orissa. New Delhi, the National Council of Educational Research and Training 1971. 134p. 26 ref.

A study has been made to identify the educational problems of the Lanjia Saora (one of the most undeveloped tribes). The findings are as follows: 1) Educational administration - The number of schools is very inadequate; on account of inaccessibility of villages inspection staff face many difficulties; hence there is no proper control over teachers; teachers do not stay in villages; the supply of reading and writing materials is not received in time; text books are not suitable to the tribal students; 2) Medium of Instruction - The tribal students are taught through Oriya and not through their mother tongue - Saora dialect; this is one of the important causes of their comparatively inferior educational performance; 3) Wastage and failure - The students have to help their parents in economic and other walks of life; so the parents withdraw the students from the schools even before their attaining a minimum standard of education; the poor response to educational programme is also due to deep-rooted cultural background and traditions; 4) High percentage of illiteracy - The number of literacy classes opened are extremely few, and mostly in the road-side villages; lack of motivation among the adults is one of the major problems. To meet these problems adequately, suitable recommendations have been made.

450 SRIVASTAVA L R N, LAL A C C, PRASAD S, AMBASHT N K, GUPTA S V, LAL P, AVASTHY B P: Educational and economic condition and employment position of eight tribes. New Delhi, National Council of Educational Research and Training, 1971. 67p.

The present report is a condensed version of the original report which is voluminous. This comparative study was undertaken at the instance of Department of Social Welfare, Government of India among 18 tribes selected from the three States of Bihar, Madhya Pradesh and Orissa for collecting selected data on education, economic conditions and employment positions of the tribal people in order to draw up programmes of development of tribes at different levels. Following are the names of the tribes: 1) Asur; 2) Birhor; 3) Ho; 4) Munda; 5) Oraon; 6) Sauria Paharia; 7) Abujhmarhia; 8) Baiga; 9) Halba; 10) Korwa; 11) Pradhan; 12) Raj Gond; 13) Bhuiyan; 14) Gond; 15) Koya; 16) Kutia Kondh; 17) The Mirdha. In the ceconomic and educational conditions Halba heads the list. In the case of educated employment Munda stands at the top. The Pradhan superseded all the tribes with regard to general levels of development in the fields of education, economy, and employment.

451 SRIVASTAVA L R N, PRASAD S, GUPTA S V, LAL P: Utilization of financial assistance by tribal students. New Delhi, the National Council of Educational Research and Training, 1971. xii, 169p. 78 ref.

The Government of India, the State Governments and the Union Territory Administrations have been, as a part of their programmes of educational development of the tribes, spending a considerable amount of money to give various types of financial assistance to tribal students. This study was undertaken to find out how the funds were utilized by the recipients. The study was conducted in Assam, Bihar, Madhya Pradesh and Tripura. Seven major tribes with 44.6% of total population were covered. A total of 660 tribal students and 63 officers who were connected with the schemes of assistance were interviewed. The main findings of the study are given below: 1) all the sample States lay more emphasis on schemes of providing assistance in cash. A majority of the officer respondents favoured the schemes of cash assistance in secondary schools and schemes of assistance in kind in primary schools; 2) the majority of the recipients and officer respondents in all the sample States reported inadequacy of assistance to tribal students. Hostel accomodation and other facilities like medical care, recreational facilities and the like were inadequate. Arrangement for serving food, its quality and quantity were reported to be satisfactory; 3) except for Madhya Pradesh, the rest of the sample States followed the criterion of merit-cum-means for awarding financial assistance; 4) a larger number of recipients reported delay in disbursement of assistance; 5) majority of students utilized the amount of financial assistance on the purchase of educational items, yet about one-fifth of them spent the amount on non-educational items. There is no prescribed rules for utilizing the amount by the recipients. Need for prescribed rules were felt by the majority of officer respondents; 6) those who get assistance do better in their studies; 7) not even a single sample State has so far followed up the scheme of financial assistance. Recommendations have been made to remove these lacunae in this scheme of financial assistance.

STATISTICS

452 NARASIMHAN M C, ANJANEYULU V: Sources of manpower statistics in India. Manpower Journal 1972, 8(1), 39-59.

An attempt is made to describe the different sources of manpower statistics and to indicate the nature and limitations of the data collected. The sources are: i) the decennial population census, ii) the labour force surveys of the National Sample Survey, iii) the employment market data of the Directorate General of

Employment and Training, iv) Labour Bureau (Simla), v) Annual Survey of Industries (Central Statistical Organization), vi) the manpower unit of the Council of Scientific and Industrial Research, vii) the Ministry of Education and UGC, viii) the Indian Council of Agricultural Research, ix) the Institute of Applied Manpower Research, etc.

STUDENT WELFARE

453 ADISESHAIAH W T V: Influence of peer groups on student life. New Frontiers in Education 1972, 2(2), 25-41. 17 ref.

Hostel management is in several ways more difficult and trying as compared with university or college management. There is great need on the part of wardens to be aware of the social and psychological processes at work in the minds of their wards to be in a position to deal effectively when a critical situation becomes evident. With this end in view, psycho-sexual development of child and youth, social behaviour during late childhood and early and late adolescence, etc., have been described. The various causes of student unrest and the remedial action that could be initiated in the hostel management have been discussed. It is observed that student unrest as it affects hostel management is not a piece apart from the general atmosphere of unrest in and outside the campuses. However, the hostel offers several opportunities for cooperation and unity. The peer group, in particular provides human conditions in which a sense of cohesiveness can be built up. Much would depend on the management insights of the warden whose relationships with his students will have much to do with the establishment of a social climate which will favour the acceptance of democratic practices and promotion of a sense of identity, so essential for normal adolescent development.

454 SUMMER INSTITUTE IN HOSTEL ADMINISTRATION, BANGALORE, MAY 1972: [Proceedings]. University News 1972, 10(7), 19-21.

The following are the resolutions and recommendations of the Institute organised by the All India Association for Christian Higher Education: 1) colleges should explore possibilities of providing additional accommodation in view of rise in student enrolment; living conditions in the existing hostels be improved; 2) the behavioural problems of modern Indian youth arising due to changing social norms and values should be solved by, i) introducing family life and sex education programmes in hostels; ii) providing opportunities for meeting of man and

woman students, iii) giving opportunities to perform meaningful social service, iv) introducing 'earn while you learn' schemes, v) opening hostels of hetrogenous nature to all communities, and vi) initiating orientation programme for new residents with the help of senior students; 3) a course be organised for equipping the hostel director with essential insights into interpersonal relations; 4) student participation be encouraged in the running of the hostel; 5) the hostels should aid the academic, moral and spiritual development of pupils; 6) cultural and leisure time activities be made available to hostel students; 7) care be taken regarding the healt. of students; 8) wardens should plan and send their proposals for improving the hostels to the UGC for financial assistance; and 9) special training programmes be organised for training the hostel administrators.

455 **SUMMER INSTITUTE FOR HOSTEL DIRECTORS**, MAY 1972. Resolutions and recommendations. New Frontiers in Education 1972, 2(2), 93-8.

The aims of the Summer Institute were to enable the hostel directors i) to reflect on the responsibilities, opportunities and challenges of their position; ii) to exchange ideas and experience; iii) to learn some of the requirements of their office in order to play their role more effectively. The Institute made resolutions and recommendations concerning the following aspects : 1) the state of Indian higher education; 2) role of hostels in education; 3) changing social norms and values and modern Indian youth; 4) politicization of Indian students; 5) interpersonal relations; 6) student participation; 7) academic, moral and spiritual development; 8) cultural and leisure-time activities; 9) student health; 10) planning and development of hostels; 11) follow-up action to be taken; 12) training programmes.

456 **WEITZ H:** Organization of student services in Indian colleges and universities. New Delhi, U.S. Educational Foundation in India, 1971. 96p. 9 ref.

This manual has been designed to provide a general philosophic frame work for the establishment of student services programmes and to suggest some organizational structures which might facilitate the operation of student services in Indian colleges and universities. The material included, has been drawn from such published documents official and unofficial, as were available, from informal discussions with about one hundred Indian educators, and from phases of student services work in the U.S.A. This manual is devised not as a blueprint for the immediate future, but a model and a goal towards which Indian student services programmes may develop. The subject has been divided into five chapters as under: 1) higher education in India; 2) functions of higher education; 3) student services - objectives and functions; 4) patterns of organization and staffing; 5) transition.

457 AIYAR S P: Politicization of Indian students. New Frontiers in Education 1972, 2(2), 8-15.

The various aspects which contribute to the politicization of students are: 1) the conscious attempt by political parties, teacher and student politicians to orient the outlook of students; 2) growing sense of power and potency among students; 3) struggle for power and equality and the consciousness of benefits accruing to particular individuals or groups within the university; 4) the process by which students are instigated and drawn into conflicts concerning university teachers and the administration or between the university and Government. These aspects have been discussed. Students and politics have been mixed up practically throughout the political history of modern India. However, it was not till the Gandhian era that students entered politics in a big way. Two changes are prominent in student movements after Independence: a) the magnitude of student involvement due to the tremendous expansion of higher education, b) the dissipation of the elan of the national movement; students have turned to purely local issues. Those in charge of the university are visibly susceptible to political influences stemming from either outside the university or within. Students are conscious that they are at the centre of attention by policy-makers and university administrators, by politicians as well as other busy-bodies. This is no insignificant factor in the process of politicization. Yet another aspect of the process of politicization is that young people are no longer willing to accept the legitimacy of traditional authority - merely because it comes from older people.

TEACHER EDUCATION

458 AHLUWALIA S P: Socio-economic change and teacher education in India. Journal of Educational Research and Extension 1972, 9(1), 46-54. 6 ref.

The following measures have been suggested with a view to modernizing teacher education which is considered as a strategic factor in effecting the process of socio-economic change: 1) strengthening the existing teacher education colleges and upgrading them into comprehensive institutions of teacher preparation; 2) recruiting persons with high academic and professional qualifications as teacher educators and improving their recruitment procedures; 3) enriching the curricula of

teachers colleges; 4) changing the organizational structure of teachers colleges and university departments of education; 'Schools of Education' having instructional departments according to major problems of education in the modernization process e.g. Department of Educational Technology and Innovation, Department of Management Education, etc. may be developed; 5) training student-teachers as generalists in the modernization process and as specialists in their field of academic teaching.

459 ARORA I P: Study of the predictive value of graduation marks for achievement in the skill in teaching of B.Ed. students. Journal of Education and Psychology 1972, 30(1), 19-22.

The study was made on a sample of 125 female students who appeared at the B.Ed. examination of the Panjab University in April 1965. The marks of the students at the graduate level and in the skill in teaching at B.Ed. level were analysed. It was found that a) achievement in the skill in teaching at B.Ed. examination was not determined only by high achievement at graduation and b) hardly any relationship existed between academic achievement at graduation and achievement in the skill in teaching at B.Ed. level. It has, therefore, been underlined that achievement at graduation may not serve as a sole criterion for selection of prospective teachers. Rather, the selection of teacher trainees be made on more varied criteria that determine success and efficiency of teachers.

460 MEHROTRA S N: Planning training programmes for science and mathematics teachers. Naya Shikshak (Teacher Today) 1972, 14(4), 9-18. 6 ref.

Science education occupies an important place in the economic development of a country. The main objectives of the revision of curriculum in science and mathematics have been 1) to make the curricula consistent with the emerging socio-economic needs; 2) to develop the teaching with emphasis on the scientific method observation, and experimentation; 3) to inculcate a scientific attitude in pupils. To introduce new material and new approaches teacher training is important. At present, most of the efforts are directed towards in-service training of teachers. However, for a long-term solution pre-service training has to be emphasised. It is suggested that new training courses be specially designed for science and mathematics teachers and introduced in selected or newly set up training institutions. A suggestive two-year course for science teachers of elementary and middle schools developed by the NCERT has been given. With regard to training of teachers at the secondary level, a special one-year B.Ed. (Sc) course should be developed for B.Scs in physical and biological sciences, cutting down the dead wood from the traditional one-year general

B.Ed. courses. It may be worthwhile to design special one-year courses for M.Scs. for teaching mathematics, physics, chemistry, biology to higher secondary classes. The training of teacher-educators is of vital concern. The new Regional Centre for Education in Science and Mathematics (RECSAM) has been established at Penang to meet this specific need.

461 SINHA D K: Some thoughts on Summer Institutes in school mathematics. Mathematics Education 1972, 6(2), 50-2.

The following measures have been suggested for the improvement of the programme of Summer Institutes: 1) entrusting the State Institutes of Education, Extension Services Departments of Teacher's Training colleges, Mathematics Departments of universities and some colleges with the task of organizing orientation and training programmes for teachers during vacations; 2) holding short orientation seminars for subject-inspectors, subject-education officers, etc.; 3) impressing well upon the participants of Summer Institutes the need for a change in the existing syllabi; 4) encouraging some good participants to act as teacher leaders to spread new trends in teaching mathematics and to act as mediators between schools and educational authorities; 5) eliciting the cooperation of Departments of Mathematics in universities and colleges of Education to boost up research studies in mathematics education; 6) considering the curricular material developed by the NCERT Study Groups as the core material for study at the Institutes.

TEACHERS

462 KAKKAR S B: Teaching performance of men and women teachers. Manas 1972, 19(1), 43-6. 6 ref.

The present experiment was in the field of mathematics and the criterion for evaluating teaching performance was the students' achievement in the final examination. Thirteen classes of the three-year degree course (Part II) were subjected to the experiment. Hundred and three students were taught by women teachers and 319 by men teachers. As measured by student achievement, the women teachers were about as good on the average as the men teachers; their classes tended to show less variance than those of the men, more closely approaching the average. The women were not as good as the best nor as poor as the worst of the men teachers. Also the women teachers tended to relatively more effective with the less able students (as measured by aptitude tests) than with the more able ones. They were relatively better than the men teachers with students of average aptitude; but not as good with the superior students.

463 KAUSHIK S L: Should teachers organize themselves into trade unions? NIE Journal 1972, 6(5), 27-30.

The formation of trade unions by teachers need no more be universally opposed as there are unions like the American Federation of Labour and the American Federation of Teachers which do not involve themselves in political issues, and the welfare of their members is their only consideration. Out of the teachers' organizations in India, some call themselves trade unions and others associations, but no difference is in evidence to distinguish one group from the other as regards aims and objectives, policies and programmes, etc. The teachers' organizations can exert pressure on the employers more effectively if affiliated to labour. But the teacher leaders in India are opposed to affiliation with labour as the present labour unions are politically motivated and as there is no all-inclusive federation at the national level. However, in the U.S.A., the A.F.T. found a real support for teachers from labour as labour is independent and unified. The A.F.T. could therefore defend its affiliation with labour. The teachers' organizations in India can also no doubt benefit by affiliating with labour, if and when the labour unions become independent.

464 PRABHAVATI M A, SOUNDARARAJA RAO T R: Job analysis of elementary school teachers. Journal of Educational Research and Extension 1972, 9(1), 55-8.

A sample of 300 teachers was chosen to collect the data for this study. It was found that most of the teachers irrespective of area and sex were spending nearly 3.83 hours for teaching alone in a school day of 5.50 hours' duration. The remaining time was spent by them in co-curricular activities, filling the records and miscellaneous work. The sample varied considerably in the performance of activities like evaluation of answer scripts, filling the stagnation chart and progress cards. The working hours in a year were about 1189. Preparation for teaching, teaching and maintaining records and other miscellaneous activities took 165, 843 and 181 hours, respectively. Moving with innocent children was the major factor giving job satisfaction. The major factor causing dissatisfaction was their pay and status in society. Some measures for the improvement of their job performance have been given.

465 SHARMA T R: Lecture evaluation by Indian students. Manas 1972, 19(1), 65-7. 2 ref.

The Cooper and Foy 43-point Scale was tried in Punjabi University, Patiala in August 1970 and repeated in September 1971 on science and non-science post-graduate students. The subjects were asked to

rate their judgement of the relative importance of characteristics of an ideal teacher and a real lecturer Mr. X in case of science students and Mr. Y in case of non-science students. The students constituting science group in 1971 were different from those in 1970, but in the non-science group in both the years the students were the same. All the students knew both the lecturers equally well. The main conclusions are: 1) the 43-point Scale was quite reliable as a measure of teacher effectiveness; 2) in the non-science group, where subjects were same in both the years, girls were most consistent in their judgement than boys; 3) judgement on particular lecturers Mr. X and Mr. Y were also fairly consistent; 4) certain points of criticism like 'student opinion is worthless', 'that the characteristics which students seek in a lecturer vary widely from group to group and from time to time', and 'that the characteristics exhibited by any one lecture vary with time and in his interactions with student group', had not much substance.

466 WADHERA R C: Teachers' status in society. NIE Journal 1972, 6(5), 31-8.

The following measures have been suggested to improve the status of teachers: 1) enriching the programme of teacher education; 2) adopting a resolute and rational approach to problems and perspectives while planning; 3) introducing 'workshop approach' in schools as a remedy to the prevailing classroom drudgery, lecturing ordeal, mechanical supervisory pattern and shattered values of discipline; 4) bringing about a healthy change in the attitude of supervisory and advisory authorities towards teachers; 5) entrusting people of proven calibre alone with responsible jobs; 6) removing bureaucratic, political and religious controls on education; 7) raising teachers' pay scales and providing better conditions of service as also adequate opportunities for in-service training; 8) forming a non-partisan teachers' association somewhat on the lines of the All-India Medical Council or the Bar Association.

TEACHING METHODS

467 INDIA. MINISTRY OF EDUCATION AND YOUTH SERVICES. Report of the study group on teaching of English. Delhi, Manager of Publications, 1971. ii, 158p.

The study group was appointed by the Ministry of Education and Youth Services in March 1969. It was asked to prepare a working paper outlining a practical programme of action for improving the teaching of English both at the school and the university stage. The study group agreed on the following assumptions: a) by the end

of the lower secondary stage (class X) every pupil will have studied English for at least three years; b) the teaching programme at the transitional stage between class X and the beginning of the first-degree course will be designed to help the learner acquire the necessary command over English; c) there is need to provide courses suited to different levels of attainment and different objectives; d) English will continue as the medium of instruction at the post-graduate institutions, All-India institutions, professional institutions, etc., for a long-time to come; e) English is needed as a 'library language' in higher education; f) competence in the art of translation from English into modern Indian languages at the college and university levels should be fostered. The group agreed to recommend the following measures: 1) provision of different courses to suit the different levels of attainment, stages of learning, circumstances of teaching and learning, and terminal objectives; 2) a recognition of the growing responsibilities of institutions involved in higher studies and research in this field and the recommendation of measures to help them perform their new tasks effectively. The group decided to concentrate on the salient aspects and the important problems related to English language teaching, even though their terms of reference covered a wide field.

468 RAGHURAM SINGH M: Learning efficiency. Journal of Educational Research and Extension 1972, 9(1), 32-9.

Learning efficiency of students implies not only the acquisition of knowledge but also its application. Students can improve their learning efficiency by developing regular study habits and other learning and reading habits like note-taking and summarising. The following measures have also been suggested: 1) creating a conducive environment to learning in lecture halls, classrooms, laboratories, libraries and hostel study chambers; 2) issuing incomplete teacher-made notes which are required to be completed by students after extensive study; 3) organizing small group discussions, buzz sessions and brain-storming sessions that help the growth of communication skills; 4) considering institutional libraries with all their contents including maps, charts, tape-recorders, films etc. as learning resources centres, chiefly meant for students' use; 5) giving timely guidance to students in selecting material for extra-reading; 6) conducting formal courses on study techniques.

469 SHARMA M L, SANTHANAM M R: School organizational climate and teacher classroom behaviour. Journal of Educational Research and Extension 1972, 9(1), 1-11. 8 ref.

The study was made on a total sample of 76 teachers belonging to three schools representing the 'open' (23 teachers) 'controlled' (28 teachers) and 'closed' (25 teachers) climates, one each. With the help of Flanders' ten-category system of classroom observation, the I/D's and i/d's were computed for each teacher. The Organizational Climate Descriptive Questionnaire was employed to assign the type of climate to the schools. With these two ratios (I/D's and i/d's) as the criteria, 'sign test' was used to interpret the data. Only the contrast between teachers working in the 'closed' and 'controlled' schools was significant as far as their i/d's were concerned. When the I/D's were considered, only the difference between the behaviour patterns of teachers in 'open' and 'controlled' schools was found nearly significant.

470 SREE RAMA MOORTHY M: Effectiveness of workbooks in mathematics. Mathematics Education 1972, 6(2), 45-9.

The study was made on 40 pupils of class IX belonging to the Parishad High School, Kanur (Andhra Pradesh). On the basis of their annual examination marks in mathematics, the Ss were divided into two equal groups of 20 each. The topics chosen for both the groups, experimental as well as control, were the same, i.e., fractions, decimals and percentages. The control group was taught by the traditional method and the experimental group was taught using the specially prepared workbooks and other teaching aids. After teaching each topic, a common test was given to the two groups. On the whole, the pupils of the experimental group secured more marks than those of the control group. The total marks secured by the experimental group was 840 while that secured by the control group was only 472.

471 VARMA M: Art in the preschool. NIE Journal 1972, 6(5), 23-6. 4 ref.

Art as a means of expression is an important factor that helps the total growth of a child. Children express themselves creatively in many ways and through various media - music, dramatizing, dancing, painting, etc. But the creative self emerges only gradually and the understanding of childrens' individual differences, guidance and the opportunities available during the preschool period, and the interest shown in the child's work play a vital role in the emergence of this creative personality. Without interfering adults could help the child by giving timely help for completing the work in hand as well as for discovering further possibilities of the activity in hand. The range of childrens'

perceptual awareness should be increased by encouraging them to explore new ways of using various media and to take interest in the things around them. The preschool teacher's knowledge of the child's psychological environment would be helpful to her in encouraging creativity. Lastly, the teacher should herself be adventurous, willing to explore and experiment with new ideas and new media. At the same time, she should put the imaginative ideas of her students above her own ideas and plans, so as not to hinder their learning experience.

TESTS AND MEASUREMENTS

472 KAUL P N, SOHAL T S: Internal consistency, reliability and validity of a scale for measuring attitudes towards extension education. Indian Journal of Applied Psychology 1972, 9(2), 51-4. 4 ref.

Describes in detail information on the internal consistency, reliability and validity of an attitude scale. This is a Likert-type scale meant for measuring students' attitudes towards extension education. It was constructed as a five-point scale with 105 items in the draft scale and 25 in final scale, using 142 subjects.

VOCATIONAL AND TECHNICAL EDUCATION

473 DESHPANDE M V: Reorientation of diploma courses in polytechnics. Lok Rajya 1972, 28(4), 4-6.

The new reoriented diploma courses started in various polytechnics in Maharashtra have removed the drawbacks of the old courses. The main features of the new courses are as follows: 1) the frame work of the courses is prepared by the Board of Technical Examination; 2) the courses are of 4 year duration with 8 semesters; 3) laboratory work, workshop practice, construction, operation, maintenance and testing of equipment and appratus are stressed in the course; compulsory industrial training would consist of 2 weeks' exposure in industry after 2nd semester, 4 weeks' industrial training after 4th semester and 24 weeks' inplant training in industry during the sixth or seventh semester; 4) the first two semesters would be common to all branches of engineering course; the diversification of different group of courses would start from 3rd semester. Information on stipend and other facilities to students and the admission rules has been given. The structure of the new courses has been presented in tabular statements.

474 FULLER W.P: Evaluating alternative combinations of education and training for job preparation, an example from Indian industry. Manpower Journal 1972, 8(1), 7-38. 15 ref.

Data were obtained by interviews with 598 turners, millers and grinders working in two modern factories in South India. Personnel records were reviewed and the opinions of supervisors were also taken. The three types of training that were considered were: i) trade course in the Industrial Training Institute plus Artisan Craftsman Training (ITI-ACT); ii) in-firm learning (IFL); iii) picking up the trade (PUT), where workers acquire skill by observation and imitation from coworkers and supervisors. The following conclusions have been drawn: 1) schooling is significantly related to job performance, but its contribution is slight, that is, a few years more or less of general education makes little differences; 2) workers with IFL or PUT are better producers than workers with standardised Government sponsored ITI-ACT; moreover IFL and PUT are less expensive per trainee; 3) although ITI-ACT workers are less productive, an ITI trade certificate is given considerable weight in recruitment policy and promotion. The following suggestions are made: a) responsibility for administering trade training should shift gradually to industry but with Government supervision of standards; b) where training outside the employing organizations is necessary, training offered might be more flexible and broad-based; c) an array of training schemes is necessary to accommodate varying needs of employers and trainees; d) the support and supervision of multiple approaches to trade training would require a well organised administration.

475 YELAJA S A: Freedom and authority in professional education. Indian Journal of Social Work 1971, 32(3), 305-13. 20 ref.

The present analysis has been restricted to professional education for social work. Values and ideology form a basic core of freedom, while goals, standards and quality of professional practice constitute a core of authority. As the values and ideology are often at variance with the factors constituting authority, there is an inherent tension and conflict between the two core aspects - freedom and authority. This conflict is a necessary pre-requisite to a creative growth of a profession and innovation for its practice. However, the creative and innovative contribution of a professional is dependant on the extent to which a professional can resolve his feelings around this conflict during the educational process.

WOMEN'S EDUCATION

476 DHARM VIR: Women education - an effort in central India. Indian Journal of Adult Education 1972, 33(8), 9.

The following activities of the Branch Office of the Bharatiya Grameen Mahila Sangh at Indore have been described: 1) organisation of literacy and functional education classes for illiterate and semi-literate women; 2) promotion of small savings in banks; 3) provision of training facilities in scientific methods of agricultural production; 4) provision of mobile library services; 5) organisation of condensed courses for coaching rural women upto high school standard; and 6) institution of a training centre named Grameen Jeevan Jyoti conducting a balwadi for children, family life education classes for adult women and a library for youth group.

WORKERS' EDUCATION

477 SAPRE G N: Case study method of teaching. Workers Education 1972, August, 92-106.

The effectiveness of case study method of teaching in workers' education programmes has been discussed. Realism in formal instruction, linking field experience with the learning process, development of self-confidence, logical and independent thinking among trainees are some of the characteristics of the case study method. The success of the method depends heavily on the competence of the teachers and the quality of the trainees. The method is also more useful in some subject areas than others. Some of the areas on which cases can be prepared and used for class study have been mentioned. They are, simple cases dealing with the problems of individual workers, union meetings, etc., and complex cases dealing with collective issues on union leadership actions, inter-union and intra-union rivalry, union recognition, wages, bonus, etc. Scripts of some such cases have been given.

478 Trade union oriented syllabi. Workers Education 1972, August, 125-33.

An account of the revised syllabi for worker-teachers and workers training courses, approved by the Board of Governors of the Central Board for Workers Education on 25th March, 1972, has been given. The syllabus for worker-teachers is divided into two main parts - a) trade unionism, industrial relations, labour legislation and labour economics, and b) tools and techniques of teaching in workers education. The syllabi have a classified unit-structure and every topic allotted teaching duration, appropriate methods to be adopted and visual aids to be used. In the second part, stress is given to practicals in methodology of adult education. Similarly, for the workers training syllabus, topics have been appropriately regrouped, keeping in view the felt needs of workers. The Education Officers are now required to teach directly twelve subjects in the unit level classes for effecting qualitative improvement.

List of Periodicals Abstracted

CENBOSEC News and Views 1972: V 8, No 2
Economic and Political Weekly 1972: V 7, Nos 26, 31-33, 35
Educational India 1972: V 39, No 1
Educational Trends 1972: V 6, Nos 3, 4
Indian Journal of Adult Education 1972: V 33, Nos 6-8
Indian Journal of Applied Psychology 1972: V 9, No 2
Indian Journal of Experimental Psychology 1972: V 6, No 2
Indian Journal of Psychology 1972: V 47, No 2
Indian Journal of Social Work 1971: V 32, Nos 3, 4
Journal of Education and Psychology 1972: V 30, No 1
Journal of Educational Research and Extension 1972: V 9, No 1
Journal of the Indian Academy of Applied Psychology 1971: V 8, No 3; 1972: V 9, No 1
Lok Rajya 1972: V 28, No 4
Mainstream 1972: V 10, No 43
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Manpower Journal 1972: V 8, No 1
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Modern Review 1972: V 120-21, No 2
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Naya Shikshak (Teacher Today) 1972: V 14, No 4
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Social Action 1972: V 22, No 3
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University News 1972: V 10, Nos 6, 7, 9
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Yojana 1972: V 16, No 13

Newspapers:

Amrita Bazar Patrika: 17 September 1972
Assam Tribune: 26 September 1972
Economic Times: 16 September 1972
Free Press Journal: 27 September 1972
Hindu: 17 August; 17, 29 September 1972
Hindustan Times: 15, 20 September 1972
Hitavada: 21 September 1972
Mail: 24 September 1972
National Herald: 15 September 1972
Sunday Tribune: 17 September 1972
Times of India: 6 July; 19, 25 September 1972

SPECIAL SECTION

AGRICULTURAL EDUCATION - I

A60 CUMMINGS R W: Concept of agricultural universities. Madras Agricultural Journal 1965, 52(5), 193-203.

The distinguishing features of an agricultural university are: 1) recognizing a direct responsibility and responsiveness to the needs of cultivators in contrast to being only a seat of learning and scholarship; 2) in addition to resident teaching for degree candidates, the staff also assuming responsibility for applied as well as fundamental research; 3) the chief medium through which the cultivators are to derive benefits being the extension service which should be fully integrated with teaching and research organizations; 4) the university territory extending to the entire State; 5) the curricula and the training programme being modelled as to be in keeping with the needs of the States. Previous to the establishment of agricultural universities, the agricultural and veterinary colleges were affiliated to traditional universities and the curricula were rigid. The Government experimental centres and livestock and poultry farms were operating independently. Establishment of agricultural universities offer solutions to the several problems. The Agricultural University Committee appointed by the Government of India made several recommendations with respect to the university structure. The recommendations have been given.

A61 FAY I G: Vocational agricultural education in secondary schools. Indian Journal of Agricultural and Veterinary Education 1958, 1(2-3), 85-9.

In order to make extension work contribute to augmenting agricultural production it is necessary to have farm-reared men as extension workers. Further, no single factor in uplifting the capacity of a rural community to understand and profit by scientific methods in agriculture is more important than having appreciable numbers of local farms run by men who had formal training in scientific agriculture and who apply modern methods in their farming operations. Hence, it is necessary that scientific training in vocational agriculture is given in the high school covering the age group of 14 to 17 years. The following benefits will accrue if agriculture is introduced in high schools: 1) such classes would attract many farm boys who would not be otherwise interested in high schools; 2) high school graduates would return to farming and would use modern methods of farming which will become models for others to follow; 3) the high school graduates will become village level workers and the brightest among them will enter universities to make careers of teaching, research or extension. Since there will be need for well trained teachers, teacher training courses should be set up in agricultural colleges. It is better to open few well-equipped schools as a pilot project.

A62 FLINGER G A: Rigidity versus flexibility of curricula. Indian Journal of Agricultural and Veterinary Education 1958, 1(1), 29-32.

Most of the agricultural colleges in India use a rather rigid curricula whereas the agricultural colleges in the United States use a flexible curricula. It is argued that the flexible curricula fulfils the following objectives in a better manner than the rigid curricula: 1) imparting to students a body of useful agricultural knowledge; 2) developing skills in agricultural work; 3) preparing for a vocation; 4) making better citizens; 5) improving the means of communication; 6) developing creative abilities and abilities to think; 7) improving abilities to earn a livelihood.

A63 HANNAH D H W: Blueprint for a rural university in India. New Delhi, Indian Council of Agricultural Research, 1956. ii, 56p.

In accordance with the recommendation of the University Education Commission (1948-49) that there should be a system of rural colleges and universities, the State of Uttar Pradesh drafted a specialist in 1955 to make a blueprint for a Rural University. The specialist was to incorporate into the blueprint such features of the American Land-Grant Institution as will give strength and meaning to the rural university. In preparing this blueprint, the specialist gave consideration to the suggestions of the University ducation Commission, the report of the Joint Indo-American Team on Agricultural Research and Education, etc. The following are the contents: 1) how a college of agriculture functions in an American Land Grant University; 2) guiding principles for a rural university; 3) suggested legislation board; 4) implementation of rural university; 5) organizational flow chart of rural university; 6) physical layout; 7) cost estimates.

A64 INDIA. CENTRAL ADVISORY BOARD OF EDUCATION. AGRICULTURAL EDUCATION COMMITTEE (1944): Report. Delhi, Manager of Publications, 1945. 10p.

The following are the recommendations of the Committee: 1) the aim of agricultural education should be to provide a) general education with practical training suited to future farmers and b) advanced scientific and practical instruction for those who should advise farmers as administrators, and for teachers and research workers; 2) comprehensive and planned system of agricultural education should be envisaged; 3) at Junior Basic School, provision should be made for nature study and practical elementary gardening; beyond this stage agricultural instruction should be

imparted as follows: i) in Senior Basic schools where agriculture is adopted as the basic craft, ii) in agricultural high schools, iii) in farm institutes providing training for Kamdars and stockmen, iv) in 3 year special course in agricultural schools, and 3 year degree course in agricultural colleges; v) in central institutes of advanced research; 4) provision should be made for training of the personnel, viz., field assistants, non-graduate assistants, graduate assistants and gazetted officers; 5) examinations at school stage be conducted by education authorities, for Bachelor's and higher degrees by universities, and for diplomas, certificates and short courses of advanced research by institutions; 6) to maintain standards, the Imperial Council of Agricultural Research should set up a Council of Agricultural Education; 7) the qualifications and emoluments of teachers should be on par with those of teachers of other subjects; 8) endeavour should be made to promote associations of agriculturists including organizations of young farmers; 9) agricultural exhibitions, fairs and meetings should be encouraged.

A65 INDIA. COMMITTEE APPOINTED BY THE GOVERNMENT OF INDIA TO ADVISE THE STATE GOVERNMENTS ON THE LEGISLATION FOR THE ESTABLISHMENT OF AGRICULTURAL UNIVERSITIES IN INDIA: Report, agricultural universities in India. New Delhi, Ministry of Food and Agriculture, 1962. 28p.

The following aspects have been covered by the report: 1) distinguishing features of the agricultural university; 2) university structure; 3) agricultural research; 4) extension service; 5) department of agriculture and of animal husbandry; 6) interdependence of research, teaching, extension service and control programmes for agricultural development; 7) present position in various States.

A66 INDIA. JOINT INDO-AMERICAN TEAM ON AGRICULTURAL RESEARCH AND EDUCATION (1954). Report. New Delhi, the Indian Council of Agricultural Research, 1955.

A close study of the educational facilities available in agriculture, veterinary science and allied subjects at all levels from the high school to the postgraduate level has been made and the following recommendations given: 1) the Indian Agricultural Research Institute, New Delhi and the Indian Veterinary Research Institute, Izatnagar should be developed into strong postgraduate centres; 2) cooperation of the national Institutes, viz., the National Dairy Research Institute, the Central Rice Research Institute, etc. and the facilities available at the various national scientific laboratories should be used for postgraduate training; 3) postgraduate training at

the colleges should be taken up only where significant research has already been done and where the staff has been adequately qualified to perform teaching and research duties; 4) five agricultural colleges and five veterinary colleges should be developed on a regional basis into strong centres of postgraduate teaching; 5) the agricultural colleges should introduce training courses for extension workers and undergraduate specialisation in extension work should be developed; 6) research opportunities should be provided for the teaching staff, particularly in the veterinary colleges as a preliminary to upgrading of the institutions to postgraduate training centres; 7) there should be only 15 to 20 students to a faculty member and the curricula of the veterinary colleges should be overhauled by Indian Council of Agricultural Education (ICAE); 8) measures should be taken to scrutinize syllabi, textbooks and teaching methods; 9) the current system of university examinations should be overhauled; 10) education in animal husbandry should be strengthened; 11) the State governments should provide sufficient funds to meet the needs of the colleges for books, buildings and equipment; 12) the number of home science colleges should be increased and located alongside agricultural colleges with Central subsidy if necessary; 13) ICAE should play an important part in the development of higher education in agriculture, veterinary science and related fields and a journal of agricultural education should be started; 14) autonomous rural universities should be established; 15) the establishment of universities in Tarai (UP), at Haringhatta (West Bengal), Patna (Bihar), Bhubaneshwar (Orissa), Anand (Bombay), and Kerala should be considered; 16) the rural institutes should not be on par with rural universities, nor with vocational agricultural schools; 17) more vocational agricultural schools of the Manjri type should be developed. Recommendations have been made on problems concerning financial support of research programmes, organization at Centre and State levels and coordination of research among various agencies.

A67 INDIA. MINISTRY OF EDUCATION. COMMITTEE ON RURAL EDUCATION (1957). Report. New Delhi, Manager of Publications, 1960. 52p.

The Ministry of Education constituted a Committee with representatives from the Ministries of Community Development Agriculture and Education to examine the working of Janata colleges, the Rural Institutes, the Manjri (Agricultural) schools and the Basic agricultural schools with the following terms of reference: 1) to examine the objectives of the institutions in question and to recommend any modifications in the same; 2) to indicate broadly the lines on which the syllabi of these institutions should be remodelled in keeping with the objectives of the institutions; 3) to suggest modifications or any improvement in these institutions. The report deals with these aspects and appropriate recommendations have been made.

A68 INDIA. PLANNING COMMISSION WORKING GROUP ON VOCATIONAL AGRICULTURAL EDUCATION: Report. New Delhi, the Commission, 1968. 69p.

A Working Group on Agricultural Education was set up in 1966 by the Education Panel of the Planning Commission. The Working Group concluded that 1) if scientific agriculture is to be introduced on a wide scale, it is necessary that a large number of farmers in the various parts of the country should be given training in scientific farming and they should go back to the lands and not for jobs; hence, the three-year course visualised in the scheme of Junior Agricultural schools formulated by the Ministry of Education will not meet the need; 2) it is necessary to provide agricultural courses to the young farmers of the age of 14 and above who have completed the middle school education and who have reasonable scope of entering farming; 3) the courses could be started in research farms, extension training centres, rural institutes, agricultural schools and colleges, etc. and then extended to other areas; 4) students should essentially work on their home farms, but they could carry out experiments in the farms attached to the school; 5) the teachers should be B.Sc. (Agr.) with five years experience in farming/extension work, and they should be given two months teacher training; 6) agriculture and work experience should be included in the elementary and secondary school curriculum. A committee of Experts for preparing a comprehensive programme of vocational agricultural education of terminal character was set up as suggested by the Working Group. The Committee's draft scheme is given in part II of this report.

A69 INDIA. ROYAL COMMISSION ON AGRICULTURE (1926): Education (In its Report. Bombay, Government Central Press, 1928. 513-56).

The following recommendations have been made by the Commission: 1) women's literacy and compulsory primary education be given importance; 2) as far as practicable teachers of rural origin and upbringing be appointed; 3) no attempt be made to teach agriculture to boys in primary schools; 4) instead of the middle schools of the "Loni" type which provide a vocational education in agriculture vernacular schools on the lines of the Punjab experiment which include agriculture as an optional subject be established in all provinces; 5) school farms be acquired if competent teachers are available to manage them; 6) an advanced course of agriculture be added to the curriculum in the rural high schools; 7) agricultural colleges be affiliated to university and the influence of agricultural colleges be felt in all branches of rural education; pass in Intermediate examination in science be made essential for admission to the three-year degree course; facilities be provided for agricultural graduates for practical training; 8) persons with high qualifications be appointed for

the principalship of agricultural colleges; 9) distinguished graduates in science be appointed as staff members; for direct recruitment to higher posts in agricultural departments, postgraduate training be an essential qualification; 10) an agricultural degree or diploma be considered equivalent to arts or science as a qualification for appointments in revenue, irrigation and cooperative departments; 11) agricultural colleges on the model of the existing colleges be established at Dacca, and in Bihar and Orissa.

A70 INDIA. SECOND JOINT INDO-AMERICAN TEAM ON AGRICULTURAL EDUCATION, RESEARCH AND EXTENSION (1954). Report. New Delhi, Indian Council of Agricultural Research, 1960. 98p.

The second Indo-American team on agricultural education was constituted to evaluate the progress of work pertaining to agricultural education, research and extension during the past five years, and to make recommendations with regard to these subjects for the third Five Year Plan; 2) to review the working of the sisterhood arrangements concluded in 1955 with the five Land-Grant Universities of the USA. The report consists of the following chapters: 1) introduction, 2) agricultural education - school, undergraduate and postgraduate levels, 3) research, 4) extension, 5) factors common to research, teaching and extension that influence food production, 6) land and livestock relationships, and 7) inter-university contract programme.

A71 INDIA. SECONDARY EDUCATION COMMISSION (1952-53): Agricultural education in secondary schools. (In its Report. Delhi, Manager of Publications, 1965. 31, 32).

The Commission stressed the need for educating the youth of the country to a proper appreciation of the role of agriculture in the Country's economy. The following recommendations have been made: 1) introduction of diversified courses in Multipurpose schools and provision in all States of greater opportunities for agricultural education in rural schools; 2) giving the student an opportunity to work under realistic conditions for a considerable part of his study so that he may acquire the right approach to agriculture; 3) integrating horticulture and animal husbandry, the two allied subjects with agriculture; if the study of agriculture is to lead to any positive results the student must be trained in these subsidiary occupations also to utilise his leisure profitably; 4) making available adequate plots of land to all schools offering agriculture; 5) planning teaching in a way as to give the student adequate knowledge of the allied sciences of Botany, climatology, nature of soil, pests, etc.; 6) also including suitable types of cottage industries in agriculture schools; 7) integrating the agriculture schools into the pattern of rural multipurpose schools.

A72 INDIA. UNIVERSITY EDUCATION COMMISSION (1948-49): Professional education - agriculture. (In its Report, Vol. 1. Delhi, Manager of Publications, 1962. 177-205).

The following are some of the recommendations made by the Commission: 1) agricultural education must be recognised as a major national issue; 2) study of agriculture should be given high priority in primary, secondary and higher education; 3) agricultural education has to be given a rural setting; 4) existing agricultural colleges should be strengthened and new ones associated with rural universities; 5) a series of experimental farms should be developed throughout the country and every Basic elementary school, rural secondary school and rural university should have its own experimental farm; 6) existing agricultural research laboratories should be supported and expanded to the full extent, and post-university research centres established; 7) the Indian Council of Agricultural Research (ICAR) must be supported and developed as a clearinghouse and coordinating agency for all advanced agricultural research centres; 8) an Institute of Agricultural Policy should be set up under the ICAR for research and study towards the clarification of over-all long-term agricultural policy for India; 9) an agricultural education and research panel attached to the University Grants Commission should be established for apportioning available resources for agricultural education and research.

A73 INDIAN COUNCIL OF AGRICULTURAL EDUCATION: Report and recommendations of the first meeting held at Hyderabad (April 1952). New Delhi, Indian Council of Agricultural Research, 1952. 27p.

The agenda of the meeting consisted of the following items: 1) reorganization of agricultural (collegiate) education with special reference to giving more practical bias to agricultural education; 2) veterinary education; 3) associateship of the Indian Veterinary Research Institute; 4) Indian Dairy Diploma Vs B.Sc. Agriculture with specialisation of animal husbandry and dairying; 5) scheme of the Madras Government for six months practical training covering a full crop season for agricultural college students before graduation. The council's recommendations with regard to these items have been given.

A74 Job opportunities for and outturn of agricultural and allied scientific personnel. Bulletin of Job Opportunities in India 1968, 5(4), 12-16.

There were 3,200 job opportunities available for agricultural and allied scientific personnel during the year 1968 in more than 16 branches of agriculture. As against, this demand, 7,229 persons

obtained degree and post-graduate degree/diploma in agricultural and allied sciences during 1966-67. Classification of vacancies according to branches of agriculture sectors of employment and distribution of vacancies according to pay ranges and experience requirements given.

A75 KUMAR L S S: Progress of agricultural and veterinary education in India. Indian Journal of Agricultural and Veterinary Education 1958, 1(1), 1-21.

The development of agricultural education during 1950 to 1958 has been briefly traced. The following are some of the important landmarks: 1) suggestions for reorganization of agricultural education made by Radhakrishnan University Education Commission (1948-49); 2) the establishment of the Indian Council of Agricultural Education (ICAE) in 1951; 3) establishment of sisterhood relations between American and Indian universities; 4) the division of the country into five regions each being assigned to one of the Land Grant colleges under the Indo-American inter-institutional arrangement; 5) setting up of a Joint Indo-American team to go into the question of agricultural research and education; 6) the first and the second seminars on 'Teaching methods' held under the auspices of the ICAE.

A76 MANDAL S C, MUKERJI S K, ROY R S: Reorganization of agricultural education in India. Indian Journal of Agricultural and Veterinary Education 1959, 2(1), 9-17.

The existing courses of study in agricultural colleges have been examined. It is shown that the needs for extension and research are divergent and it is difficult to work out a single course of study to cater for both. Hence, the agricultural colleges may have to adopt a course of study suitable for extension purposes and provide facilities for specialisation in one of the subjects. Teaching is likely to be efficient and the courses less burdensome if instead of three annual university examinations six half yearly examinations could be held. The half-yearly sessions could be named as Kharif term and Rabi term. Such an undergraduate course has been detailed. A two year M.Sc. (Ag) course has also been given.

A77 NAIK K C: Agricultural education in India, institutes and organizations. New Delhi, Indian Council of Agricultural Research, 1961.

Presents a panoramic view of India's agricultural training programmes, the diversified agencies and administrations that are responsible for such programmes and the current trends. The following are the contents:

1) Indian Council of Agricultural Education; 2) agricultural universities; 3) postgraduate education in agriculture; 4) undergraduate institutions; 5) dairy education; 6) home science colleges; 7) sisterhood arrangements with Land-grant universities in the USA; 8) rural institutes; 9) extension training centres; 10) vocational agricultural schools; 11) agricultural education in the multipurpose schools. The appendices include a) recommendations of the first and second seminars on teaching methods, b) organization of the colleges of Agriculture, veterinary science and basic sciences of Rudrapur University, c) general information about agricultural colleges and veterinary colleges, d) institutions offering home sciences, e) agricultural schools etc.

A78 NAIK K C: Integration of research, education and extension in agriculture. Madras Agricultural Journal 1957, 44(12), 588-92.

The three-fold channels of agricultural improvement are through research, education and extension service. With regard to agricultural research there are a multiplicity of agencies at work. The Indian Council of Agricultural Research aims to integrate them into a single system. Just as results of research get enriched and scientific ability grows with the practical experience of farming so does the efficiency of the farmer and extension worker grows with intimate contact with scientific progress in agriculture. Hence there should be coordination between research and extension. The standard of agricultural education has to be improved. The pattern of education has to be changed constantly to the changing needs and circumstances. No effort should be spared in giving a high level of competence for those who get training in agricultural colleges, because it is the agricultural graduate who will be the future research worker or extension worker. Education is a continuous process of acquiring new knowledge and extension personnel need such continuous flow of knowledge. Thus there is need for integration of research, education and extension activities for agricultural development.

A79 PANDE B P: Recent trends in veterinary education in India. Indian Journal of Agricultural and Veterinary Education 1958, 1(1), 40-5.

The progress of veterinary education in India has been briefly traced. The problems and weaknesses of the existing veterinary education have been discussed, and some suggestions are given for improvement.

A80 SEMINAR ON TEACHING METHODS IN AGRICULTURAL AND VETERINARY COLLEGES, Ist, TRIVANDRUM, MAY 1958: Report. New Delhi, Indian Council of Agricultural Research, 1957. 100p.

The seminar was attended by representatives of colleges, technical cooperation Mission and members of the American Land Grant Colleges. Recommendations were made on the following aspects: 1) objectives and methods of teaching, 2) teaching aids, 3) student field studies, 4) student-teacher relationship, 5) teacher evaluation and improvement.

A81 SEMINAR ON TEACHING METHODS IN AGRICULTURAL AND VETERINARY COLLEGES, 2nd, MUSSOORIE, MAY 1958: Report. New Delhi, Indian Council of Agricultural Research, 1958. 80p.

The second seminar was attended by 53 principals and professors of agricultural and veterinary colleges in India and nine members of the American Land Grant Colleges. The following topics were considered and appropriate recommendations made: 1) student counselling, 2) financial aid to students, 3) class schedule, 4) inservice training of teachers in teaching methods, 5) effective use of library, 6) inservice training of teachers in teaching methods, 7) examination as a teaching aid, 8) accommodation for teaching and research purposes in agricultural and veterinary colleges, 9) importance of research in teaching programmes in the interest of better teaching, 10) should teaching and research sections of a college farm be earning sections? 11) introduction of elective or optional system for agricultural and veterinary degrees, 12) student-teacher ratio, 13) a) selected methods of teaching, b) flexibility versus rigidity of curricula, 14) organization of committees on regional basis for watching the progress of implementation of the recommendations made at the teaching seminars.

A82 SEMINAR ON TEACHING METHODS IN AGRICULTURAL AND VETERINARY SCIENCES, 3rd, BOMBAY, MARCH 1960: Report. New Delhi, Indian Council of Agricultural Research, 1960. 248p.

The third seminar was attended by 75 delegates representing teachers, principals and deans of agricultural and veterinary colleges, and 3 Vice Chancellors. The seminar considered the following aspects and made recommendations: 1) action taken on the recommendations of the previous seminars; 2) proceedings of the meeting of convenors and US technicians on the draft syllabi for agricultural colleges; 3) teaching methods in postgraduate institutions; 4) refresher courses; 5) eligibility standards for agricultural and veterinary colleges and for postgraduate institutes; 6) minimum standards for colleges offering the degree and postgraduate degrees in agriculture and veterinary sciences; 7) selection of guides for postgraduates training in their research programmes; 8) supporting courses and their values in levelling up the class to a uniform standard; 9) scholarships and fellowships.