CIRF Publications, Vol. 12, No. 5 is a collection of 80 abstracts giving particular attention to education, training, and economic growth in developing countries, Iran, Japan, Kenya, the Solomon Islands, and Sri Lanka; vocational rehabilitation in Italy, Spain, the United Kingdom, and the U. S. A.; agriculture in Chad, developing countries, and Switzerland; and training for the unemployed and underemployed. The professional abstracts, generally two pages long, are broken down by sector (i.e., education, commerce, etc.), country, author, title, bibliographical references, translation, subject analysis, and contents analysis. (NH)
How to file the Abstracts

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1. Open the binder after the yellow card marked 1.
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Si cela vous paraît utile : classez les Résumés par pays au sein de chacune des rubriques 1 à 15.
Contents of this despatch:

80 Abstracts and the list of publications

Note particularly:

Education, training and economic growth

Developing countries

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Vocational rehabilitation

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Agriculture

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Contenu de cet envoi:

80 résumés et la liste des publications

Voir spécialement:

Enseignement, formation et croissance économique

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Formation pour les personnes en chômage et sous-employées

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Act to strengthen rehabilitation services for the handicapped: federal grants; state plans; basic vocational rehabilitation services; individualised programmes; research and training.

The Rehabilitation Act of 1973 authorises the expenditure over a period of two years of $1,546 million in grants to states, local governments and private agencies for the operation of rehabilitation programmes for the handicapped.

Responsibility for the implementation of the Act is vested in the Secretary of the Department of Health, Education and Welfare (DHEW). There is established in this Department a Rehabilitation Services Administration which shall be headed by a Commissioner appointed by the President. The Rehabilitation Services Administration shall be the principal agency for carrying out this Act.

A State shall submit to the Secretary for his approval an annual plan for vocational rehabilitation services. The State plan which encompasses the basic agreement between the State agencies and the Federal Government, shall contain the plans, policies, and methods to be followed in carrying out the State plan. Major emphasis is to be placed on services for individuals who are severely handicapped.

The provision of vocational rehabilitation services (Title I) shall include an "individualised rehabilitation programme" in the case of each handicapped individual, to be developed jointly by the rehabilitation counsellor and the handicapped individual, or his parents or guardian, if appropriate. Such a rehabilitation programme shall be reviewed annually by the individual (or his parents or guardian) and, if necessary, changed.

Vocational rehabilitation services provided under this Act are defined as: any goods or services necessary to render a handicapped individual employable, including: evaluation of vocational potential; counselling, guidance, and placement services; vocational and other training services which will include personal and vocational adjustment, books and other training materials, and such services to the families of the individual as are necessary.

(cont'd)
A series of pilot "client assistance" projects is established to provide special counsellors to inform and advise handicapped persons of all available benefits under the Act and assist them in obtaining the services they require.

The Secretary, through the Commissioner and in co-operation with other programmes in DHEW, is authorised to issue grants and contracts to the States and public or non-profit agencies and organisations, including institutions of higher education, to pay part of the costs of projects for planning and conducting research, demonstrations and related activities which bear directly on the development of new methods, procedures, and devices to improve services to handicapped individuals.

The Act will promote the expansion of employment opportunities for the handicapped in both private and public sectors; in the latter through the Inter-agency Committee on Handicapped Employees to be established within the Federal Government. This Committee is to be composed of representatives of the various interested Government departments. A study is to be made of the role of sheltered workshops in the rehabilitation and employment of handicapped individuals as well as of wage payments in such workshops. There will also be a study of services that could assist individuals for whom rehabilitation is not feasible so that they may lead more independent and self-sufficient lives.

Assistance is to be given for increasing the number of rehabilitation personnel and raising their level of skill through training.

Efforts will be made to find new methods of easing or eliminating the various architectural and transportation barriers that impede the handicapped.

This Act repeals the Vocational Rehabilitation Act of 1968 which was originally enacted in 1920 as the National Civilian Vocational Rehabilitation Act.
Federal law on agriculture, amendment of 14 December 1973

Agricultural vocational training (Article I) comprises initial training ('formation de base') and further training.

Initial training lasts at least 3 years and includes: (a) the apprentice period including compulsory theoretical courses or related instruction and culminating in the end-of-apprenticeship examination, or else a period of practical training; (b) attendance at a school of agriculture.

To enter the examination, the trainee must either: have completed the required practical and theoretical instruction; have worked on the job for a period twice as long as the apprenticeship, while following courses of related instruction (or have otherwise obtained the theoretical knowledge); or have taken a one-year full-time course in an agricultural school.

Success in the examination is confirmed by a trade certificate (certificat d'apprentissage).

Schools of agriculture and for specialised agricultural occupations

Anyone obtaining a trade certificate or accepted as a candidate to sit the examination may apply to enter a school of agriculture. The instruction generally lasts at least two semesters and qualifies the students to work as a farm supervisor (chef d'exploitation). The course leads to the award of a Federal Certificate of Proficiency (certificat fédéral de capacité).

For those following an apprenticeship of at least 3 years for a specialised agricultural occupation as approved by the Federal Council, the trade examination is assimilated to the proficiency examination.

Mastercraftsman examination

Persons holding the Federal Certificate of Proficiency may present themselves for the mastercraftsman examination, on conditions laid
down by the Confederation. Success is confirmed by a Federal Master-
craftsman Certificate, which testifies to the holder's ability to plan and
direct an independent agricultural enterprise or supervise a major branch
of farming.

Training of supervisory workers

The training of supervisors, including their further training, may be con-
fided to central or regional bodies, charged with both planning and developing
vocational training. The Confederation may organise and finance special
courses for such agricultural personnel.

Technical institutes (technicum)

These institutes train technicians and higher technicians in fields not re-
quiring university qualifications. The new law supersedes in this respect
the Federal law of 13 March 1964 on agricultural technical institutes.
To achieve the purposes of the Act a programme of comprehensive manpower services (Title I) is to be established by the Secretary of Labor throughout the country. Such programmes shall include the development and creation of job opportunities and the training, education and other supportive services needed to enable economically disadvantaged, unemployed and underemployed individuals to secure and retain employment. The Secretary of Labor shall obtain the approval of the Secretary of Health, Education and Welfare with respect to provision of basic education and vocational training.

This comprehensive manpower programme will be implemented by "prime sponsors" through financial assistance to be made available by the Secretary of Labor.

Prime sponsors. A prime sponsor shall be: (1) a State; (2) a unit of local government with a population of 100,000 or more persons; or (3) any equivalent unit or group of units designated by the Secretary under exceptional circumstances.

Each prime sponsor shall establish a planning council to make recommendations concerning programme plans, goals, policies and procedures. The council shall comprise representatives of the various interests concerned (client community, the employment service, education and training agencies, labour and management, etc.).

Receipt of financial assistance depends upon the submission of a comprehensive manpower plan by the prime sponsor. Major emphasis is to be placed on services for those most in need. Such services will be provided through public services or agencies or, where appropriate, through existing private institutions.

Public employment programmes (Title II) are to provide unemployed and underemployed persons with transitional employment in jobs providing

(cont'd)
needed public services in areas of substantial unemployment and, wherever feasible, related training and manpower services to enable such persons to move into subsequent employment. The programmes will emphasise need for career advancement.

**Special federal responsibilities (Title III).** These shall include: (1) special manpower services for specific target groups of the population that are in particular need, e.g. young people, offenders, older workers, migrants; (2) the establishment of a comprehensive research programme to contribute to the formulation of national manpower policies; (3) a programme of experimental, developmental, demonstration, and pilot projects related to manpower, employment and training problems; (4) the development of a comprehensive system of employment market information to provide immediate information concerning manpower needs and resources; (5) the establishment of a system of continuing evaluation to assess the adequacy of the services provided.

**Job Corps (Title IV).** Responsibility for the Job Corps programme created under the Economic Opportunities Act of 1964 [cf. abstract No. 2/B 17261, Vol. 7] is transferred to the Secretary of Labor. The programme is to be strengthened and residential and non-residential centres are to be set up in which trainees will participate in intensive programmes of education, vocational training, work experience, counselling and other activities. Those completing such a programme will be issued with a certificate relating to their level of educational attainment.

**A National Commission for Manpower (Title V) is to be established with the responsibility for advising the Secretary on national manpower issues. It shall comprise representatives of government departments, labour, industry and education. The Commission shall identify manpower goals and conduct studies, research and any other activities necessary for formulating appropriate recommendations to put before Congress. The Commission shall report annually to the President and the Congress.**

Loi no 73-1193 du 27 décembre 1973 d'orientation du commerce et de l'artisanat: titre IV, enseignement et formation professionnelle

Law No. 73-1193 of 27 Dec. 1973 establishing basic principles for the commercial and artisan trades: Section IV, education and vocational training

Provisions of the law laying down basic principles for the commercial and artisan trades concerning education and vocational training: initial training; retraining and upgrading; introduction to management.

The measures designed to encourage individual employment in the commercial and artisan trades include regulations governing education and vocational training. The chief provisions are summarised below.

**Initial training**

The possibility for young persons under 16 years of age (but over 15) to enter into a contract of apprenticeship, treated as an exception under apprenticeship law No. 71-576 of 16 July 1971 [cf. abstract No. 1/L 127, Vol. 10], is now an integral part of the Labour Code. During the last two years of compulsory schooling, trainees following sandwich courses may attend practical and introductory training periods in recognised commercial or craft undertakings. An agreement must be concluded between the undertaking and the school. A premium is paid to the head of an undertaking who agrees to accept a pupil for a practical training period and this premium is increased if a contract of apprenticeship is subsequently signed.

**Further training**

Independent tradesmen and artisans accepted for retraining or upgrading, as defined in law No. 71-575 of 16 July 1971 [cf. abstract No. 1/L 126, Vol. 10], are exempted from the obligation to continue working during training if they are tenants of the premises where their business is conducted. They receive compensation calculated according to a formula set out in the law.

Artisans and tradesmen who decide to seek paid employment on completing their courses are entitled, for a maximum period of 3 months, to an allowance equal to that received during training.

Short introductory management courses are to be organised by Chambers of Artisan Trades and Chambers of Industry and Commerce for persons applying to register a business for the first time. Introductory courses

(cont'd)
on management functions are to be organised by post-secondary vocational schools approved by the Ministry of Education.

Chambers of Artisan Trades and Chambers of Industry and Commerce, in co-operation with the professional associations, are to create training insurance funds, as required by law No. 71-575 of 16 July 1971 [cf. abstract No. 1/L 126, Vol. 10].

(In addition, the provisions for promoting the streamlining and modernisation of small businesses (Section III, Chapter IV) accord priority in granting loans to instal equipment to those tradesmen and artisans who have taken retraining or upgrading courses.)
Journal of European Training (Bradford BD9 4JZ)
MCB
200 Keighley Road
3 nos p.a. £ 8.95

Journal Officiel de la République française (75-Paris 15e)
Gouvernement français
26, rue Desaix
Irreg. FF 65

Journal Officiel du Grand-Duché de Luxembourg / Memorial,
A/Recueil de législation (Luxembourg)
Imprimerie de la Cour Victor Buck
Irreg. F. Lux. 650

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Urbanstrasse 12-16, Postfach 747
4 nos p.a. DM 72

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Ministerstwo Oświaty i Wychowania
ul. Grażyny 15, pok. 236
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The Training Officer
Institution of Training Officers
55 Station Road
12 nos p.a. £ 6
Grundsätze zur Neuordnung der beruflichen Bildung (Markierungspunkte)

Government proposals for reorganisation of vocational training structure; comparison of present practice and changes proposed.

On 15 November 1973 the Federal Government adopted "Guiding Principles for the Reorganisation of Vocational Training (Main Points)". The following text summarises the proposed structure of vocational training in relation to the present position.

**Proposed structure**

**Uniformity and application of Vocational Training Act**

Extension to artisan trades, seafaring, auxiliary medical occupations and public service, except for training in a public legal employment relationship (e.g. civil service)

**Training courses**

Provision for basic training for a broad occupational field followed by increasingly specialised occupational training; great reduction in number of training occupations

Joint preparation and harmonisation of training regulations and outline syllabi (Rahmenlehrplan), co-ordination of training contents between different places of training (schools, undertakings and group training centres)

Guaranteed uniformity of vocational school syllabi (States) and training regulations (Federal Government) by increased collaboration in and outside the Federal-State Commission for Educational Planning, increased participation by States in work of Federal Vocational Training Research Institute (Bundes-

(Cont’d)
Institut für Berufsbildungsforschung; formalisation of collaboration by new vocational training Act and additional agreements.

**Places of training**

Functional distribution of training responsibility between undertakings, group training centres and schools; capacity for additional 10,000 trainees in group training centres — for basic training, pedagogical reinforcement of particular phases of specialisation, and for balancing regional provision of training.

**Suitability of training premises, public supervision**

Public authorities responsible for checking suitability of premises for initial and further training and retraining before training begins. Supervision of training implementation by high level government authorities.

**Vocational training contracts**

Standard legal provision for private training contracts; legal provision for possibility of separate contracts with each place of training involved, within framework of whole training programme, to promote integration of group training centres and thus improve training opportunities.

**Young people without vocational training contracts**

Reinforcement of educational and vocational guidance; introduction of special forms of basic training year followed by one-year courses; Federal Government to check whether period of full-time compulsory schooling should be extended for this purpose.

**Training staff**

Legal regulation of minimum occupational and pedagogical requirements for training staff in fields covered by out-of-school training; establishment of public examinations to check suitability of training staff.

Supervision by Chambers of Industry and Commerce; deficiencies determined after training begins, whereupon the training is sometimes forbidden. No standardisation because individual Chambers issue different model contracts; contracts cover only training programme as a whole. Except for isolated cases no provision for helping these young people. Regulation of training staff suitability hitherto limited to industrial sector.
Training certificates and formal qualifications

Public boards of examiners to strengthen public responsibility for achievement at all places of training and to enable vocational course results to count towards general education courses, and vice versa.

Examination standards for initial and further training to be issued in statutory form to ensure greater objectivity and uniformity of examination process.

Certificates from vocational courses to count towards general courses in senior secondary education or vice versa, or to be accepted as equivalent.

Chambers set up boards of examination

Examination standards issued by Chambers, only provision for certificates obtained in full-time education to count towards, or be accepted as equivalent to vocational training certificates.

Further training

Establishment of publicly recognised further training occupations, so as to improve quality and allow for transfer to other fields and for the training to count towards other training; possibility of accrediting further training not publicly regulated.

Virtually no publicly regulated further training. At most, regulation of certificates by Chambers.

Concentration of responsibilities in Federal Government

New vocational training Act to confirm Minister for Education and Science's responsibility for questions of principle and co-ordination; Minister will also issue legal enactments under standing arrangements for inter-ministerial co-ordination.

Legal enactments issued by Minister responsible for field concerned, in agreement with the Minister for Education and Science or vice versa.

Federal office

Establishment of Federal Vocational Training Office (Bundesamt für Berufsbildung) for administrative, research and development work which does not require handling at ministerial level; Federal Vocational Training Research Institute to be incorporated in Office, the aim being to strengthen public responsibility as well as ensure uniformity of training and facilitate Federal-State cooperation.

Federal Vocational Training Research Institute handles research at Federal level into questions of principle and practice, but its activities are limited to ministerial level tasks (Minister for Education and Science).
Responsibilities in States (regional level)

Distribution of work between State authorities and Chambers; public authorities responsible for checking suitability of premises for initial training, retraining and other further training arrangements, for their continuing supervision, establishing public boards of examiners; Chambers propose accreditation, public bodies having power of decision.

Co-operation and participation in decision-making

Groups taking part in administrative bodies to participate in decision-making, not just act in advisory capacity; participation of trainers and trainees to be improved; the continuing need for Chamber vocational training committees to be checked with those concerned.

Financing

To be decided when main report of the Committee of Experts on the Costs and Financing of Vocational Training [cf. abstract No. 2/B 52032, Vol. 12] is available

Under present Act responsible bodies (Chambers) supervise and implement vocational training.

Limited right to participate in decision-making in the Chamber vocational training committees; co-operation by advising State and Federal Governments with help of State and Federal committees for vocational training.

Financing by individual undertakings.
SCHUBERT, H.
Mit einander oder gegeneinander bei der Reform der beruflichen Bildung
Berufsbildung im Handwerk, Bonn, Vol. 25, No. 22, 26 Nov. 1973,
p. 19-22.

The reform of vocational training: partners or rivals?

Article on the concern being expressed in the artisan trades at the
proposed reform of the law on vocational training and the opposition
being voiced concerning the transfer to the State of the responsibilities
of the Chambers of Artisan Trades.

The sweeping reorganisation of vocational training envisaged in the
proposed Federal Government reforms [cf. abstract No. 1/B 57302,
Vol. 12] entails a number of serious risks for the dualist school/
industry training system.

The contention that equality of opportunity requires the integration of
vocational training in the general educational system rests on the assump-
tion that the vocational streams must contain an element of general
secondary education if access is to be open to the university. This, in
turn, presupposes the "inferiority" of the vocational streams as such.
Yet experience shows that a secondary-school leaving certificate is not
proof of capacity to follow higher education. A new approach to voca-
tional training is needed. It should be recognised as a form of educa-
tion.

A major purpose of the 1969 law on vocational training [cf. abstract No.
1/L 88-1, Vol. 9] was to expedite the preparation of new training regu-
lations (Ausbildungsverordnung). This work was held up by the slowness
of the procedure for approving, by official decree, the training specifi-
cations, model syllabi, examination rules. Texts of official regulations
should be limited to the minimum standards, leaving working circles to
translate them into model syllabi.

Undertakings providing training. The rigid control of training and the
assumption of its supervision by the State could discourage undertakings
from making an effort to do more than the minimum stipulated and from
adapting their training on a continuous basis to technical development.
It might even deter the best undertakings for training purposes from
taking on trainees. Furthermore, if the undertaking and the school are
to be placed truly on an equal footing, they must be subordinated to the
same rules.

(cont’d)
The experts' committee on the costs and financing of vocational training [cf. abstract No. 2/B 52032, Vol. 12] envisages the creation of a Fund with functions going beyond those of a simple instrument of finance. The allocation of training costs by means of independent organs of management (Chambers of Artisan Trades) is more effective in encouraging employers to participate than the payment of arbitrary sums to a fund of this type.

**Handicapped youth.** The number of young people having difficulty in learning continues to grow. The school alone cannot undertake the special training measures required, the aims of which should be to give each pupil a year of full-time basic training.

New channels for training within the undertaking should be opened for the increasing numbers of young people holding secondary-school leaving certificates who are unable to proceed to university.

While the duration of school training increases, that of training in the undertaking decreases, in line with hours of work. This is not compatible with improvement in the quality of training, since it is not enough to increase the theoretical content. The undertaking needs modern teaching material, but the transfer to the Federal Vocational Training Research Institute (Bundesinstitut für Berufsbildungsforschung) of the work of the Centre for Vocational Training within Industry (Arbeitestelle für betriebliche Berufsbildung) has had the effect of slowing down the production of pedagogical material.

The proposed legislation would institute a system by which training premises would be subject to approval by a State organ (Akkreditierung). There is no evidence that such a body would be more objective than the Chambers of Artisan Trades. There is also a danger of bureaucracy.

Other administrative organs will be created at the State (Land) level to which practically all the responsibilities now discharged by the Chambers of Artisan Trades will be transferred. Such an upheaval is unnecessary. On the contrary, what is needed is co-operation between all the parties concerned.
In referring to this abstract please quote:

B 58981

Trainee: Young

Sector: Commerce

ISCO: Salesman, shop assistant, etc.

CIRF: 1

Country: Switzerland

Author:

Translation:

New developments in commercial vocational training

Subject analysis:

Article on recent changes in the training of commercial employees: increase in related instruction; introduction of new material; creation of a 2-year apprenticeship.

The Federal Office of Industry, Arts and Crafts, and Labour (Office fédéral de l'industrie, des arts et métiers et du travail, OFIAMT) decided to introduce in 1974 new regulations and curricula for commercial apprenticeships. The aim is to allow for the expansion of the services sector and the rationalisation of office work and to offer adolescents a broader training and education leading to a federal certificate of proficiency.

3-year apprenticeship of commercial employees (kaufmännischer Angestellter). Related instruction given in the vocational schools has been increased from 2 to 3 half-days a week. Courses in gymnastics and sports have been added and a weekly period of supervised practical exercises has been introduced. Language courses in the mother tongue have been raised from 160 hours to 200 hours. Optional courses are offered in mathematics, data processing and, experimentally, "civilisation and the environment".

In the first year, a common curriculum is followed by all apprentices; subsequently they may take a combination of subjects according to inclination and aptitude.

Apprenticeship of office employees (gelernter Büroangestellter). A 2-year apprenticeship was instituted in 1973. Related instruction comprises 2 half-days a week. A final apprenticeship examination may be taken at the end of the training period.

Apprenticeship of sales assistants. Persons having obtained an average mark of 4.0 to 4.5 (out of a possible total of 6) in the apprenticeship examination at the end of the 2-year training period may go on to take a further one-year apprenticeship. During this second stage, the related instruction occupies 4 half-days a week. The subsequent examination qualifies the apprentice as a skilled retail trade employee (gelernter Detailhandelsangestellter).

[Curriculum of the commercial employee apprentice training programme.]
Kommission zur Vorbereitung der Revision des Bundesgesetzes über die Berufsbildung – Bericht an SDK und SVGU

Preparatory committee for revision of the federal law on vocational training — report presented to the CDS and the USEP

Proposals of a preparatory committee for the revision of the vocational training law: scope; initial provisions; practical training; apprenticeship contract; regulations governing vocational trainees; functions of related instruction; examinations; instructor training; finance.

The Swiss Vocational Education Union (l'Union Suisse pour l'enseignement professionnelle. USEP) and the Congress of Principals of Swiss Vocational and Technical Schools (Conférence des directeurs des écoles professionnelles et techniques Suisses – CDS) appointed a committee to draw up proposals for the revision of the law on vocational training [cf. abstract Nos. 1/ 05073, Vol. 2 and 1/B 4549, Vol. 4].

The scope of the law should be redefined. All occupations requiring two years' training or more should be defined as skilled trades. There should be an established training programme for each skilled trade.

Training for specialised occupations (Anlehre) — (duration less than two years) should also be regulated under the law. The duration of practical training within the undertaking for specialised occupations should be determined in the light of the training objectives in each case.

Trainees in specialised occupations should in no case follow courses in the vocational school for less than two terms.

A compulsory syllabus should be published for each trade, to be regularly reviewed in the light of psycho-pedagogical development.

The respective responsibilities of the undertaking and the vocational school should be clearly defined. The syllabus should contain: (a) the regulations for practical training; (b) an outline syllabus for related theoretical instruction.

Practical training should follow one of the following 3 patterns: (1) training in the undertaking but with compulsory and systematic basic training in group training centres; (2) complete and systematic training organised entirely within the undertaking; (3) training in a training workshop or recognised vocational school.

Introductory courses [cf. abstract No. 1/ 06984, Vol. 3] should be (cont'd)
integrated with the systematic basic training given in group training centres and brought under the supervision of the Canton.

The technical and pedagogical qualifications of instructors should be improved; compulsory courses should be organised for them under the supervision of the Canton.

The Cantonal supervision of the undertakings should be strengthened.

The apprenticeship contract should be deposited with the competent Cantonal authority before the beginning of the apprenticeship period which should coincide with the start of the academic year of the vocational school. The duration of the training period should be stated in complete years.

The legislation should include regulations governing vocational trainees and giving vocational training the same status as other educational streams. The provisions of the Federal law on employment and contracts of employment applicable to young persons in training should be integrated with these regulations.

The role of the vocational schools should be to give: (a) compulsory education in accordance with standard school curricula; (b) related instruction for apprentices; (c) courses of basic training in certain specified occupations; (d) further training and retraining for skilled (ausgelernter) and semi-skilled (angelernter) workers; (e) courses for unskilled workers.

The vocational school should play a greater role in decision-making. In case of unsatisfactory results, the school should have the right, in certain circumstances, to request that: the student repeats a course; the apprenticeship be prolonged; the student be transferred for training in a less difficult occupation in the same sector or a semi-skilled occupation; he should change his occupation; the apprenticeship be terminated.

The Cantonal control of private vocational schools should be strengthened.

[See also abstract No. 4/B 52781, Vol. 12.]
In referring to this abstract please quote No. B 55992

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Author: Report to the Vocational Training Council's Committee on Apprenticeship Wellington, Department of Labour, Research and Planning Division, 1973, 42 p. (mimeo.).

Translation

Subject analysis

Report on a survey carried out to review the apprenticeship situation in New Zealand: methodology; trades reviewed; findings and implications; statistical appendices.

Contents analysis

An inquiry has been carried out on the basis of a questionnaire prepared by the Department of Labour into apprenticeship trends in the following trades: carpentry, general engineering, cabinet-making and plumbing. The aim was to gather information on such matters as local apprentice-ship committee attitudes to the educational obligations of apprentices, the nature of complaints by apprentices and employers, and the reasons for contract termination. The survey covered a period of 8 months. The questionnaire was completed by the 19 district offices of the Department of Labour and supplemented by Government statistics. The subsequent report was submitted to the Committee on Apprenticeship set up by the Vocational Training Council [cf. abstract No. 1/L 78, Vol. 8].

Findings and implications

1. Each of the 4 trades under review had reduced the over-all duration of apprenticeship since October 1965. This reduction resulted in: (1) an immediate increase in the number of applications to enter apprenticeship; (2) an initial reduction in the premature termination of contracts followed by a rapid increase in the last 3 or 4 years. The trend towards an increasing number of lapsed and cancelled contracts would seem to indicate a need for the re-examination of the present system of training.

2. Examination results have been disappointing. The pass rates in trade examinations for the period 1961 to 1971 were: general engineering 43%, plumbing 23%, cabinet-making 15% and carpentry 14%.

3. There were insufficient statistical data to ascertain the motivation for entrance into the various apprenticable trades.

4. There has been an adequate supply of apprentices in cabinet-making and general engineering since 1965. In carpentry only 50% of the demand has been met and there is an over-all shortfall of plumbers.

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5. There was a marked variation in the educational qualifications and ages of entrants into the 4 trades. In general engineering 33% had a school-leaving certificate or higher educational qualification, while in cabinet-making over 50% had only 2 years' secondary education or less.

6. A study of apprentice dropouts revealed that: (1) dropout patterns varied according to the type of trade but there was a high level of early dropouts in carpentry and cabinet-making; (2) the better the educational qualifications the less likely the apprentice was to drop out; (3) the most frequent reasons for termination were "insufficient interest", "inadequate at job", "cancellation by the apprenticeship committee" and "unable to cope with study"; (4) the attraction of higher wages elsewhere was not a major influence on the dropout rate although it did play a role in the plumbing trade; (5) the duration of the training was of no significance in this respect.

7. The number of premature terminations in all 4 trades is considered serious and employers should review their selection procedures, induction training, theoretical training and the need to make potential apprentices more aware of what an apprenticeship contract actually involves.

8. Employers who provide assistance and encouragement to their apprentices tend to get better results from their apprentices. Boys following correspondence courses appear to have more difficulty in the theoretical subjects than do boys attending night classes.

9. Almost all local apprenticeship committees considered that trade theory should be compulsory. However, it is clear that employers will have to continue to accept boys who have little aptitude for theoretical study if present intake is to be maintained.

10. The majority of complaints made by apprentices related to the type of work they were expected to perform. The second most frequent type of complaint related to problems of personal relationships with other people on the job. Complaints by employers fell into 4 categories: work performance, job attitudes, appearance, and failure to meet educational obligations. There is a certain amount of evidence that employers and apprentices fail to communicate adequately with each other. The present system of handling complaints appears to work satisfactorily.

[Cf. abstract No. 1/B 20269, Vol. 7.]
Report to the Government of the Democratic Republic of the Sudan on industrial vocational training needs

A technical co-operation mission was carried out by the International Labour Office under the auspices of the United Nations Development Programme (UNDP) to determine the vocational training needs of industry.

The primary purpose of the mission was to conduct skill surveys in order to ascertain the existing and developing needs for vocational training in various trades and at different skill levels, including retraining and upgrading of workers. It concentrated on four trades, namely, metal trades, electrical/electronic trades, building trades, printing trades. The survey was carried out by personal interviews which were based on a standard questionnaire. 533 establishments with 5 or more workers were visited, covering a total labour force of 105,950 full-time paid employees, of whom 96,700 were serving in the public sector and 9,250 in the private sector.

Recommendations
- In view of the great number of independent authorities responsible for vocational training throughout the Sudan, it is recommended that a standing co-ordinating body be constituted with power to approve all institutional vocational training programmes, irrespective of the ministry or authority responsible for their implementation.

- In view of the widespread need for upgrading the skills of employed workers, upgrading training facilities should be expanded by the introduction of a greater number of diversified courses, and by the use of a flexible modular system of instruction designed to cater for the occupational skill requirements of individual workers. Training should be geared to the acquisition of a recognised qualification dependent on the attainment of the minimum skills specified by the National Vocational Training Council.
- Measures should be taken to upgrade the status of vocational training. The reluctance of employers and unions to accept trainees of public vocational training institutions will have to be overcome. The Government must ensure that vocational training meets occupational needs. The organisation of training institutions in the public sector should be rationalised and where necessary appropriate measures taken to improve instruction, supervision and admission criteria. A publicity campaign should be carried out to promote the dignity of manual labour.

- In-plant training programmes in industry are being actively developed under the national vocational training scheme. This scheme already provides for training of instructors, but short courses for in-plant training officers should be developed. High priority should be accorded to the further development of instructor training so as to establish a national corps of instructors with defined career prospects.

- Senior secondary technical education must be improved. There is an urgent need to: recruit teachers of industrial subjects from experienced skilled workers; improve teachers' conditions of service; improve quantity and quality of facilities and equipment and the level of theoretical instruction.

- In order to enhance the status of the technical secondary schools comprehensive secondary schools should be established combining technical and academic streams. A pilot school should be set up to demonstrate and test the concept.

- Vocational training centres should be established throughout the country on the basis of a list of priority areas so as to meet local training requirements.

- Vocational guidance facilities should be provided if the country is to obtain maximum benefit from its educated and trained young people.

- The expansion of training activity will require increased expenditure. If the Government decides that the cost, or part of it, should fall on the employer, a study should be made of the various industrial training levy systems in operation today in a number of countries.
JONES, D.
North Sea Oil: manpower and training implications

By 1980, the North Sea oil fields discovered in Scotland should be in full production. But there is a grave danger that their full development will be hindered by a shortage of skilled labour. It has been estimated that these oil fields will have created 10,000 jobs by 1975 (5,000 directly employed by the industry and a further 5,000 in construction, distribution and services). By 1985 this could have been doubled to between 20,000 and 25,000.

Unfortunately there is no pool of required skills anywhere in the area. The unemployed tend to be mainly drawn from the agricultural sector or from the unskilled labour force. If the demands of the industry are to be met, there will need to be a transfer of skilled labour from the urban areas to the east coast — or a programme of training that will convert shepherds into welders, or a combination of both. The wholesale direction of unemployed labour in other parts of the country to the north-east coast of Scotland is unthinkable in a democracy. And even if the skilled manpower were to materialise, it is obvious that the local authorities will be unable to cope with the demand for housing.

During the initial development stage the twin problems of getting the right type of labour to the site where the work is concentrated and of housing that labour have so far been tackled by private industry itself. One private company building steel production platforms in deep-water met the challenge in the following way. Although there was a high level of local agricultural unemployment they looked further afield for a labour force that could be trained in welding and tubular fabricating techniques. The company recruited extensively in the Western Isles, where there is a strong sea-faring tradition. The point of this was that patterns of employment which take the men-folk away from home were already accepted in a sea-faring community, whereas in an agricultural community commuting on even a daily, let alone a longer basis is not normal practice.

(cont'd)
The newly recruited labour force had to be housed. The company chartered an old Greek ship to serve as a floating hostel. At the same time a training school was opened to teach modern welding techniques. With a view to future skill requirements, the company also launched a 3-year engineering trades training scheme for young boys. School-leavers do an initial 6 months full-time training at the Inverness Technical College followed by on-the-job training at Nigg Bay. After 3 years the trainee should be able to obtain a craft certificate of the City and Guilds of London Institute. Many other companies are carrying out similar training schemes and appropriate courses are being introduced into the various institutes of technology in the area. One institute of technology has launched a one-year full-time diploma course in off-shore engineering.

However, as the oil companies approach regular production they are going to have to turn increasingly towards the local supply of labour. The off-shore oil industry demands and will continue to demand in increasing numbers, a wide range of skills in manufacturing and in technical services, quite apart from the specialist skills of the men out on the rigs and platforms. At the moment the industry just about has sufficient manpower. But very few companies will be able to meet the anticipated demands of the next decade. Nor in the long run would companies have the resources to finance any large-scale resettlement of the labour force.

Given the size of the problem there is a case for the Government to appoint a minister who would be responsible for oil production. The minister would be charged with securing the most advantageous terms for British oil concessions and ensuring that resources were developed as soon as possible. He would also have the longer-term responsibility for ensuring that supply and maintenance, manufacture and repair facilities were available for this key industry. He would need the funds and the authority to initiate a large-scale regional development scheme.
The research began in 1963, with the aim of studying the content of industrial occupations, the skills and knowledge needed to execute the corresponding tasks, and conditions of recruitment. It was expected that the analysis of the findings would clarify the influence of technical progress on the standard of qualifications.

**Method**

A preliminary inquiry was conducted to obtain a classification of occupations based on uniform criteria.

A. **Skilled workers:** (1) specialised skilled workers (ouvrier spécialisé qualifié, OSQ) working in semi-skilled trades, who because of particular qualifications are classed and paid as skilled workers; (2) machine operators and assimilated workers (automated installations); (3) workers in recognised industrial trades such as (a) tool makers and production operatives and (b) maintenance; (4) workers in recognised craft occupations.

B. **Foremen:** (1) first level, and (2) second level who supervise the former and whose functions are either mainly technical or mainly supervisory or managerial.

C. **Technicians:** (1) in recognised craft occupations, appraising raw materials or semi-finished goods; (2) instrument technicians manufacturing or regulating, measurement and control; (3) controller/operator of heavy installations; (4) technicians formulating production norms; (5) technicians specialised in fields not directly linked with production, such as programmers, computer specialists, audio-visual specialists, etc.

The inquiry covered 107 undertakings employing 225,000 persons (more than 90% of whom were in establishments with over 1,000 employees) plus the French Railways with 320,000 employees. The undertakings (cont'd)
were on the whole particularly modern. The results may be regarded as typical of large-scale industry. A matrix was used to obtain information on: the exact designation of the job, the breakdown of the workforce by skill level, extent of experience (for skilled workers only), training needed (in the broadest sense), method of recruitment (training on the job, aptitude test, vocational examination on engagement, work experience obtained within the undertaking in different jobs) and certificates expected. The matrices were filled in by the investigators during lengthy and repeated visits to the undertakings.

Main conclusions

The designations currently in use are no longer appropriate: truly skilled occupations were found under the same name as occupations requiring only brief on-the-job training.

The production method (small-scale, medium, mass production automated) has more influence on the skill level than has the type of product. The designation of establishments should be based therefore on the production process.

Mass production entails a big reduction in the proportion of skilled workers in manufacturing occupations. The policy of growth assumes the development of this type of production, hence a fall in the average skill level of industrial manpower is to be expected. To offset this, the level of occupations requiring a formal qualification will tend to rise, but such jobs will be relatively few in number.

The demands of occupational mobility imply a growing need for multi-purpose skills which the present training system is apparently unable to satisfy.

The results of the inquiry should help to clarify the changes needed in the training system to fit it better to the real needs of industry.

[Statistical tables, training outlines.]
MORAGAS MORAGAS, R.
Rehabilitación — un enfoque integral

Rehabilitation — an integrated approach

Book dealing with the rehabilitation of all types of the disabled: scope of the problem; the rehabilitation process — physical, mental, vocational and social rehabilitation and adaptation to and of the environment; legal and organisational aspects; role of social security and of international organisations; conclusions; bibliographies; subject index.

Rehabilitation is not merely a combination of medical, psychological, vocational and educational techniques but an ideology, a means of enabling a person suffering from any type of handicap to develop to his maximum. In a modern society it requires a global, integrated and humanistic approach to the problems faced by the disabled. The goal of all rehabilitation efforts is to assist the disabled person to participate to the fullest extent possible in life within his community and to contribute to the attainment of national goals. It is a process of resolving social problems which become apparent when the means available to a person for dealing with them are insufficient to develop fully his individual and social aptitudes.

The rehabilitation process is composed of various interdependent elements: the development of the potential within each individual (Totality); the assumption that each person’s needs are unique (Individuality); the solution to the problems of rehabilitation are to be found in scientific process and its application (Scientific foundation); the supposition that the collaboration among disciplines is necessary for the resolution of all problems (Interdisciplinary approach); the need for persistence in the achievement of rehabilitation goals (Follow through); the recognition that all persons could be candidates for rehabilitation (Universality); the assurance that rehabilitation goals are of benefit to the individual and to society (Social usefulness).

Vocational rehabilitation must be viewed in a psycho-social as well as an economic frame of reference. Work fulfils very basic human needs. Unemployment is a condition which tends to isolate a man from his peers who are employed. This is all the more true of the disabled person out of a job whose modes of access to work are much more limited than those of the able-bodied job seeker.

The vocational rehabilitation process consists of four stages: assessment of the handicap, orientation and determination of the occupational (cont’d)
goal, vocational training, placement and follow-up. Since the ultimate goal of vocational rehabilitation is the placement of the individual in stable and productive employment, thereby ensuring his fullest participation in the community, this last stage is crucial. It requires a multiple approach and co-ordination and co-operation of all concerned in identifying the client's personal aptitudes and abilities, exploring employment opportunities, ensuring individual adaptation to the job, or adaptation of the workplace, or both.

Trade unions have a role to play in this aspect of the vocational rehabilitation process. Negative attitudes of work mates can constitute a major obstacle to the rehabilitation process. The unions can help to eradicate such attitudes just as, in the past, they have fought, and continue to fight to obtain just compensation for their disabled work mates. They could also increasingly participate in schemes to hire and re-employ disabled workers.

An appendix contains a list of major disability categories indicating: nature and etiology of the disability; its incidence and consequences; basic services and major types of institution offering rehabilitation services.
Report setting out some general principles to be taken into consideration for an education policy at Community level: background; methodology; trends; problems; general conclusion.

The Commission of the European Communities approached Professor Henri Janne on 19 July 1972 to formulate the first principles of education policy at Community level. These principles were subsequently formulated after consultations with leading authorities in the educational field. The consultations were related to two documents issued as discussion guides: (1) a background note defining major educational trends and problems in Europe; (2) a "memo of talks" listing a number of practical points which a supranational education policy would necessarily have to cope with. A synthesis of the implications emerging from these consultations is outlined below.

Education is already a recognised responsibility of Community policy. The Treaty of Rome which established the European Economic Community comprises provisions relating to vocational training, the right of establishment and the equivalence of degrees and diplomas which directly depend on a Community education policy. There is a genuine awareness of the importance of the link between education and the economy. There is also recognition of the links existing between educational, economic, social, cultural and scientific problems. Solutions to the problems raised imply an over-all concept.

Educational systems in Europe are characterised by the following features: (1) teaching has become, at all levels, mass teaching; (2) there are increasing pressures towards democratization; (3) the volume of knowledge is developing rapidly; (4) education has ceased to be the monopoly of teaching, the mass media play an increasing role; (5) individuals are better informed than in the past and wish to plan their own education; (6) although education is a powerful (though latent) force working for social equality, there are problems connected with the integration of graduates and school-leavers into rapidly changing economic structures; (7) the separation of the school from society has created many problems, particularly dissatisfaction and lack of
motivation among young people; (8) controlled "de-schooling" may become a factor in changing the system to function on a more individual basis; (9) mathematical language will become increasingly important in a society which is increasingly scientifically and technically oriented.

Furthermore, in common with other societies, there is a crisis of values in Europe. This is characterised by conflicts between generations and emerging solutions will have a marked impact on the future directions of education.

An examination of the political aspects of the problem of education has established the need for: a respect for national structures and traditions; the association of non-member European countries with Community initiatives; concerted action with regard to member countries' participation in international organisations; the creation of an educational and cultural committee for the Community; consideration of a European charter of education as a framework for Community policies; policies which are complementary to national policies and concentrate on forward planning; inclusion of a European dimension in national education policies; a greater knowledge of languages throughout the Community so as to increase communication.

Obviously educational co-operation covers a span ranging from pre-school education to the university level and adult education. Priorities will be decided by the appropriate Community bodies. However it is suggested that special attention should be given to the creation of consortia made up of universities in the various countries. Other areas where it is important that early co-operation should be developed are continuing or lifelong education, adult education and new technologies.

The consultations carried out so far constitute only one stage in a process which sooner or later must take the form of a Community policy in the field of education. The next step should be to set up a study group to carry out more comprehensive fact-finding. A study group, because of its unofficial nature, would be preferable to the setting up of a more official agency.
In referring to this abstract please quote N°B 57000

| Author: | COOMBS, P. H. |
| Title: | New paths to learning for rural children and youth |

First general report on research carried out to assess the contribution of non-formal education to social and economic development in rural areas: methodology; background; concepts; case-studies; critical issues; proposals for action. [This abstract gives an over-all review of the project.]

The failure of the formal education system to solve the problems of mass poverty in rural areas in many developing countries raises the question as to what can be done through non-formal education. A research study commissioned by the United Nations Children's Organisation (UNICEF) and carried out by the International Council for Educational Development (ICED) attempted to answer this question.

The study was designed to provide developing countries as well as UNICEF and other agencies with information and practical guidelines on how to: assess the needs within a given country for non-formal education for rural children and youth, particularly those out of school; plan, evaluate and strengthen effective programmes to meet these needs; define the ways in which external agencies can help implement non-formal educational strategies and programmes.

The main focus of the research was confined to: non-formal education; out-of-school children and youth; rural areas of developing countries.

The research was based on a series of country case-studies to examine non-formal education programmes in action, on numerous discussions with recognised experts, and on a review of pertinent documentation.

Evidence showed that the educational deprivation of rural youth in the developing world is more serious than generally assumed. Only a massive effort over the next two decades can correct the situation. To succeed, such an effort must be guided by well-conceived strategies, adapted to the circumstances of each country and rural area. The aim should be to build on existing structures, a rural learning system that will provide children and adults alike with educational options relevant to their evolving needs and interests. Large-scale, highly standardised programmes must be replaced by a wide diversity of programmes, each well adapted to particular localities, needs, objectives and clienteles. Educational resources must be redirected to a democratically conceived mass learning system.

(cont'd)
Learning systems will obviously be defined within a particular society and will vary greatly. Six fundamental concepts are essential to any such system: (1) the development of positive attitudes in all aspects of life — towards family, work, learning and ethical values; (2) functional literacy and numeracy sufficient for a minimum level of reading, writing and mathematical calculations; (3) a scientific outlook and an elementary understanding of the processes of nature in the particular area relating to health, sanitation, crops, etc.; (4) functional knowledge and skills for raising a family and operating a household; (5) functional knowledge and skills for earning a living; (6) functional knowledge and skills for civic participation.

The first step is to assess the current situation in relation to defined 10-year forward objectives. Only in this way can a wise choice be made in relation to initial action. Past pitfalls must be identified and avoided.

Among the general possibilities worth considering at primary level might be: to start primary schooling at a later age, with a revised curriculum more relevant to rural conditions; to prolong primary schooling over a longer period on a part-time basis emphasising practical training in later years.

Whatever combination is adopted however there is a need for primary education to be supplemented by informal learning (educative influence of the environment) and non-formal education (any organised educational activity outside the formal system). Both should be geared to infusing more modern types of knowledge and skills that can help an area modernise and move ahead. There should be a concerted approach to saturating the "total" learning environment of rural areas with new ideas.
The Barcelona Institute of Education (Instituto de ciencias de la educación) carried out a study of vocational trainees to determine their sociological characteristics. The study was carried out by questionnaire in 67 vocational training centres during the school year 1972/1973. Of the 28,744 trainees enrolled, replies were received from 12,359 - 43% of the total. A sample of 2,439 pupils was selected on the basis of the following criteria: geographical region, type of establishment (public, private, religious, etc.), type of course (regular, evening or sandwich). In addition, 510 questionnaires contained questions on special aspects of vocational training (mainly in the province of Gerona), on the agricultural and service sectors and on supervisory training. The data were supplemented by information supplied by the training centres themselves and by the National Institute of Statistics.

Findings

Two basic considerations emerge in analysing the socio-economic and educational characteristics of vocational trainees: whether pupils remain in or dropout of the vocational school; the problem of 'worker-students' who are either working while studying or have been in employment before starting on their training.

Personal characteristics (temperament, aptitudes, etc.), play a part in occupational choice but more objective external factors connected with the family or social situation constitute the dominant factor. Factors related to remaining in or dropping out of school include geographical mobility, family educational level, age, socio-economic category and standard of general education.

The socio-economic category of the trainee's family strongly influences: (1) training completion rate, which is highest where the parents are skilled workers, managerial staff or professional people and lowest among unskilled, agricultural and small business circles; (2) the

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proportion of trainees working while taking their courses, which declines steadily as the socio-economic category rises.

The employment market is a critical variable in analysing the characteristics of these vocational trainees, since 54% were working at the same time as studying in 1972/73, and given the direct link between production and training in so far as the latter supplies the skilled manpower needed. For most of these young people, however, vocational training seemed primarily to be a means of changing their social and occupational status. In the case of 50% of the worker/students, there was no connection between the work they were doing and the course they were taking; the connection was closest in the case of handicraft and less-skilled trades (e.g. in metalworking) and least for more technical and newly developing trades (e.g. in electronics).

The survey also showed that the situation of the trainees varied between areas according to the degree of industrialisation and population density. Where industry and population were concentrated in urban areas, geographical mobility was a more important factor than the level of family education; in less industrialised areas, where immigration is insignificant, the trainees came from higher social categories.

Vocational training may be expected to evolve between two extremes: for some, in the industrialised areas, it will be a means of social advancement (especially for immigrants to these areas); for others, it will be a training channel for the middle class, and trainees will tend to be of local origin.

Vocational training will eventually have to deal with two questions: (1) What is the influence of fluctuations in immigration? and (2) What steps will have to be taken, if the new Education Act is to be applied, to help individuals acquire retraining when they are older than the upper age specified in the law for the type of course they are following (which is the case for at least 50% of the "worker-students").
Centro Studi Investimenti Sociali (CENSIS)
Evoluzione dei rapporti tra sistema educativo e sistema socio-economico e nuove politiche dell'istruzione nell'ambito comunitario

Evolution of the relationships between the educational and socio-economic systems and the new educational policies in the European Community

Article on educational trends in the countries of the EEC: implanting a new education — methods, objectives, characteristics; need for Community level organs and common research to harmonise standards and curricula. [This abstract deals only with the new education.]

Problems connected with education are becoming more and more a Community question whose solution no longer rests with the education authorities but raises issues of a more general political and economic character. A close relationship may be observed between the education crisis and the political and social evolution of the advanced countries.

It is now clear that the expansion of education is not paralleled ipso facto by corresponding social and economic progress. An increase in the number of years of schooling has not always produced positive results.

New approach. A new approach is therefore required, based on the following principles:

- the need for a systems concept of the relations between the school and society;
- the need to demonstrate in a more obvious and practical way the fundamental policy options which are at the bottom of the different choices;
- the need to have a variety of supervisory institutions and decision-making centres, given the complexity of the school system and the importance of integrating school and society under the best possible conditions.

Objectives. If these conditions are fulfilled, while educational institution would still face a crisis of identity and purpose, the first steps could be taken towards certain objectives of social and economic policy as it affects education. These would be:

- to review progressively the organisation of work, in view of the workers' higher educational standards;
- to smooth in every possible way the entry of young people into the world of employment.

(cont'd)
It follows that less money and effort should be devoted to school education and more to training related to employment. Such training should be chiefly for the benefit of young persons who start work too young, others who spend long years at university without much hope of appropriate career prospects, apprentices (whose training needs reviewing), and adults in need of retraining.

All European countries are at present experiencing the same sociological and economic evolution of the educational processes characteristic of post-industrial society. New objectives and new functions must therefore be found for the different stages of education.

The new education. In this situation, education after the compulsory schooling period should be characterised by:

- senior secondary level studies tending strongly towards the evolution of a single type of school;

- general training, which would not be oriented solely towards the future occupation but would lead to higher education or (within the context of employment) constitute part of secondary school level technical or vocational training;

- a syllabus providing authentic and useful training for the great majority of pupils who will not get far beyond the worker or employee level and will not continue their studies; at the same time, however, a syllabus which will allow some pupils to go on to university, give others the means to acquire specialised techniques quickly — or do both concurrently.

As regards actual innovations, these should aim less at structural change than at a radical reform of traditional apprenticeship through a reorganisation of training programmes along modular lines. There should also be expanded opportunities for continuing training outside the university.
Manpower and employment in Botswana

The employment market in Botswana is characterised by considerable structural imbalance. The growth of the labour force over the last 8 years has been significantly faster than the growth of wage employment in spite of a speed-up in the rate of outward migration, particularly towards seasonal employment in South Africa. This phenomenon, plus a rapid increase in the number of people moving from the rural areas to the towns, has caused a sustained increase in the number of unemployed job-seekers, an increase in the demand for urban services, and a concomitant explosion of poverty, frustration and disillusionment, among the individuals and families involved.

The vast proportion of the country’s labour which is at present under-utilised can be reduced only by a major development effort and an increase in expenditure on education and training has to be seen as a vital part of this process. To remedy this situation the following steps are considered essential.

1. More attention must be paid to employing local citizens in the private sector. All employers should specify target dates for localisation of all posts and set up the necessary training programmes to achieve these targets.

2. The distribution of educated and skilled workers between economic sectors is uneven and the largest single proportion goes into Government service. The existing scarce resources of skilled manpower should be allocated to those sectors and projects which generate employment, i.e. agriculture, mining and construction.

3. A vigorous attempt should be made to increase the participation of women in skilled employment. Equal pay for men and women should be promoted.

1. Consideration should be given to the establishment of a student
counselling service. This could have a significant effect upon realistic career aspirations.

5. If employment growth is to be maximised, continued implementation of the incomes policy is crucial. Skills which are desperately needed for the country's development command insufficient earnings and prestige. Consideration should be given to reducing the present large differentials between highly educated and semi-skilled workers.

6. Primary education has to be recognised as being terminal for the majority of students. Thus the first priority is to redesign curricula so as to provide a course giving relevant preparation for future life. Changes in curricula should involve changes in teaching methods, in the attitudes of teachers and students, changes in the methods of selection of primary students for progression within the system.

7. There is a need to continue to upgrade the existing teaching force through in-service training and to upgrade the educational and training standards of new entrants to the profession.

8. Increased concentration upon upgrading courses is desirable, particularly for occupations requiring a mathematical or scientific background. Consideration should be given to increasing the resources available in the field of adult education.

9. Specific policy measures should be introduced at higher education level to ensure that a steady flow of graduates become available for private sector employment. Consideration should be given to the introduction of a central training fund, financed by a training levy on all establishments, from which bursaries for students designated for private sector employment could be provided.

10. Priority should be given to establishing a national computerised system of employment data.

11. An evaluation of the potential for the extension of small-scale industry activities should be carried out.

12. Further research and analysis should be directed towards: the reduction of educational costs; the extent of the skill loss through emigration; skill utilisation and the role of women.
In referring to this abstract please quote N. B 56764

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Translation

Subject analysis

Paper summarising the Government's official employment policy: analysis of the problems; policies since independence; specific proposals for new strategies.

Contents analysis

[This paper provides the official response to the recommendations in a report submitted by an International Labour Office/United Nations Development Programme (ILO/UNDP) Employment Mission to Kenya [cf. abstract No. 2/B 50756, Vol. 12]. This abstract deals only with the response of the Government of Kenya to the recommendations concerning education and training.]

The basic policy of the Government is to aim for improvements in quality within the education system. The major focus of this system will be on the further development of job-specific training as opposed to general education. In practical terms, this means expansion in pre-vocational schools, increased support for an expansion of technical and vocational education under existing programmes and renewed emphasis on training high level manpower.

The Government's educational policy is to be supported by fiscal and other measures. It will involve the establishment of wage and salary guidelines which will attempt to alter the structure of wages and salaries in favour of skilled manual workers as opposed to those with an academic education. In addition, measures will be taken to ensure that workers are paid according to the jobs which they perform rather than the amount of education which they have acquired.

While accepting the analysis relating to the educational system and to the problems of unemployment, set out in the ILO/UNDP report, the Government does not accept all of the specific proposals relating to education. Reaction to the major proposals is outlined below.

- In principle, the Government accepts the reform proposed for primary education which includes a lengthening of the course from 7 to 9 years, a consequent increase in facilities, a completely revised examination procedure based on aptitudes, a new curriculum with emphasis on pre-vocational subjects and a considerable increase in teacher retraining.
It is intended that these reforms will be phased in as resources become available.

- Secondary education will be divided into two cycles each of 2 years' duration. The Government will investigate the feasibility of introducing a programme of community service in rural areas for young people. The proposal was that those who complete the first cycle of secondary education should be required to provide one year of community service and that university students should provide a further year of service during university studies.

- Steps will be taken to implement that proposal relating to the creation of a series of second-chance institutions for dropouts and adults, based on local self-help efforts. The purpose would be the reintegration of all early school-leavers into the mainstream of education. The Government will determine how it can help such institutions provide the functions which are recommended.

- The Government already operates a system of district quotas for entry into secondary schools so as to ensure equitable geographic distribution of educational opportunities. Rather than add to the quota system, as suggested in the ILO/UNDP report, the Government will reorganise and increase existing facilities so as to provide greater opportunities for all.

- The Government rejects the suggestion that a commission secretariat should be established in the Ministry of Education in order to implement the reforms envisaged. The Government intends to establish an inter-ministerial committee for co-ordinating all programmes connected with education, training and manpower.
HOFBAUER, H., NAGEL, Elisabeth
Regionale Mobilität bei männlichen Erwerbspersonen in der Bundesrepublik Deutschland

The regional mobility of male workers in the Federal Republic of Germany

Report on study of regional mobility among male workers: changes of residence linked with change in place of work; variations according to level and type of work and whether recent arrival in Federal Republic.

[The study covered by this abstract formed part of research carried out by the Institute for Employment and Occupational Research (Institut für Arbeitsmarkt- und Berufsforschung) of the Federal Employment Institution (Bundesanstalt für Arbeit).]

The population covered by the study were asked:
(1) whether they had moved to live in another place since 1955 (or since starting work, if they had started to work after 1955);
(2) if so, whether the move had been in conjunction with taking a job in another place and,
(3) if so, whether they had moved at least 50 kilometres from their previous place of residence.

Findings

1. At least 16% of males in the labour force in 1970 had moved within the Federal Republic at least once between 1955 and 1970, in conjunction with a change in place of work.

2. The proportion of male workers who had moved was twice as high for persons who had settled in the Federal Republic in or after 1944 (e.g. refugees) [referred to as 'recent arrivals'] as for native born male workers (native born: 13%, recent arrivals: 26%).

3. The new place of residence was at least 50 kilometres from the previous one in the case of 74% of the male workers who had moved at least once between 1955 and 1970 in conjunction with a change in their place of work.

4. Young workers moved, with a change in place of work, more than older ones (4.7% of those who had been in the labour force only one year had done so, against a yearly average, between 1955 and 1970, of 2% for workers who had been in the labour force 10 years).

(cont'd)
5. Over the period 1955-1970 a smaller proportion of male workers with little education and training had moved, with a change in place of work, than of those with better education and training (male workers with only primary education who had not completed vocational training: 8% of native born and 21% of recent arrivals, against 37% of native born and 46% of recent arrivals among those with at least completed senior secondary education).

6. Intermediate level and senior civil servants and salaried employees at similar levels had most frequently changed their place of residence in conjunction with a change in place of work between 1955 and 1970 (native born: 30-33%, recent arrivals: 41-44%). The proportion was lowest for independent workers and manual workers (native born: 8-10%, recent arrivals: 19-29%).

7. Given the same initial level of entry into the labour force at base date, a comparison of those who had subsequently been promoted and those who had remained at the same level showed that a larger proportion of the promoted workers had moved and changed place of work.

8. In areas of immigration with favourable employment market conditions (little unemployment, strong labour demand) the proportion of male workers changing residence was above average.

[Comments; numerous statistics.]
A series of three expert consultations on extension training were held in Mexico City from 19 to 28 March 1973, in Kingston (Jamaica) from 2 to 10 April 1973, and in Santiago (Chile) from 14 to 24 April 1973.

The purpose of these consultations was to examine the issues and problems involved in producing more effective training for extension workers at all levels so as to enable them to relate more closely to the needs of the farmer and farming families. Consideration was also given to seeking means of involving farmers more directly in extension activities through representative farmer organisations. The emphasis throughout was on the development of extension training that is relevant to farm needs.

Five main issues were examined: constraints to rural extension; objectives of rural extension; mobilisation for structural change; selection and training of extension workers; a strategy for extension training.

Each consultation followed a similar pattern, beginning with field trips to see extension and farmer training activities in the area in order to give participants an opportunity to focus on the issues to be discussed. Detailed discussions in working groups followed. Each group comprised experienced people working in a large variety of fields related to agricultural extension work.

Apart from the detailed discussions which took place within the framework of the five technical areas under consideration, a number of proposals were addressed to FAO and other interested international agencies on the development of extension training within the region. These related particularly to: the need to carry out a survey and assess the relevance of existing training; the need for a greater exchange of ideas between regions on successful training; the desirability of increased regional assistance in training; the need for the involvement of agricultural worker (campesino) and farmers' organisations in training,

(cont'd)
and requests for specific action to promote new training concepts and materials.

It was proposed that FAO prepare an educational text on the social and economic aspects of extension training. A maximum possible distribution should be given to this document. It was also recommended that a tripartite working group of FAO/UNESCO/ILO be set up to initiate investigations to determine the possibility of creating an international training centre for rural development.
What motivates people to undergo further training?

Due to the increasing necessity for workers to undertake further training, it is important to ascertain the factors which influence their attitude towards training. To this end, a survey was carried out in a nationalised undertaking in Magdeburg (VEB Fahlberg List).

Results

The reasons why workers undertake further training were as follows: for increased salary (90.0%); to improve work performance (70.5%); to obtain more interesting work (70.5%); to apply the skills and knowledge acquired within the undertaking (66.8%); to enable them to resolve complicated problems (62.0%); to acquire supervisory functions (54.4%).

Main occupational fields. Of the total workforce, 54.6% considered further training essential in maintenance work; in the field of economics the percentage was 24.5% (even though such training is not always accompanied by any substantial increase in salary).

Type of work. The proportion of people undergoing further training in order to contribute more effectively to departmental activities was highest (76.9%) in the research centre while in other departments the average was 40%.

Skill level. The ability to judge the need for further training is more developed among workers with high skill and qualification levels.

Age. The age distribution of workers desiring further training was as follows:

<table>
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<td>Percentage</td>
<td>26.7</td>
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Group significance. There was a significant influence on: relationships within the group; information on future tasks; satisfaction through improved conditions of life and work.
Sex. The differences noted were linked to the level of skill.

Work satisfaction. The hypothesis according to which only work satisfaction had a positive influence on further training was not proved. Dissatisfaction could also be a motivating force.

Main suggestions

1. Organisation of further training courses. In arranging further training courses it is essential to pay more attention to the qualification and skill levels of workers, their age and their family responsibilities; courses related to a specific work post should be organised in the corresponding occupational field or in a related field; the system of further training should be oriented more towards future tasks.

2. Measures to improve motivation. These were namely:

- to improve the information flow to workers on their future tasks in the undertaking and on the qualifications and skills which will be demanded of them;

- to establish, with production workers, a comprehensive and continuously updated classification on development work and improved work methods and to determine the skills and knowledge necessary for each work post, taking into account the changing nature of such tasks;

- to determine the criteria by which workers are assigned to the various salary scales;

- to introduce the possibility of following further training in cultural and intellectual fields for workers within undertakings.
The law of 16 July 1971 on the organisation of continuing vocational training [cf. abstract No. 1/L 126, Vol. 10] has given legal recognition to changes in the position of adult training institutions which previously occupied a marginal situation. It is interesting to study the consequences of this development on the relationships between man and his institutions (institutional analysis) at a time when continuing education and training is offered as a panacea. Every training activity, even the most specialised, affects the institution which organises it. Even when strictly regulated by management, the activity of training modifies the relationship of the worker to knowledge and introduces an element of "transversalité"; this phenomenon tends to appear where maximum communication exists between the hierarchical levels in all directions. Provided it maintains control over these counter-institutional forces, the training group may introduce certain changes. The institutionalisation of continuing training can be seen as an attempt of the existing economic and political system to perpetuate control over such changes.

[This issue of the journal contains documentation mainly for the use of training personnel and presents various aspects of institutional analysis applied to the training of adults.]

While embracing such concepts as job enlargement, job enrichment, self-management and democratisation of the workplace, the idea behind "transversalité" goes even further and aims at the complete restructuring of the work situation. The author has already published a critique of the ideology of continuing education and training in "Critique des systèmes de formation", Paris, Anthropos, 1972. Ed.
Towards an economic assessment of continuing or lifelong training

To reach an objective judgement on continuing or lifelong training requires an analysis of costs and benefits. The analysis should enable optimal training systems to be defined for given qualifications, comprising in part traditional basic training and in part continuing training.

1. Method

The proposed analysis is in three stages:

(1) determining whether an optimal education system exists, and if so to construct a theoretical model;

(2) introducing constraints to make the model operational by:
   
   (a) abandoning certain hypotheses assumed in the theoretical stage, particularly the infinite divisibility of work and education;
   
   (b) taking into consideration existing systems of education and production;
   
   (c) recognising constraints linked with the introduction of the system;

(3) financing of the optimal system which should be a contributing factor towards promoting individual enrolments in the system.

The direct economic return of the training is measured by means of conventional cost/benefit analysis.

2. Assessment of social return

The principal hypotheses are:

- for the operation of the system, full-time training is followed immediately by part-time training, and the percentage of total working hours devoted to training is constant;
- the total direct costs of basic and continuing training are equal; teaching efficiency is independent of the learners; training is given during working hours;
- marginal wages are related to labour supply; the employment market operates under classical competitive conditions;
- the training given is of a general type.

Finding the optimum

The problem is to compare the return on training according to whether it is acquired by (a) basic training to be put to immediate use or (b) the acquisition of skills and knowledge subsequently developed by continuing training. For comparative purposes the best continuing training system has to be measured against the traditional system.

The variables are (1) the age of entry into working life, $t_{A1}$; (b) the incidence ("dose") of continuing training, $\alpha$, and (3) the total duration of continuing training, $n$. By setting direct costs against incomes the net gain can be calculated.

The optimal system leading to a given level of skill $[t_{A2}]$ is represented by the highest net benefit and is obtained by using a formula of the following type:

$$\max [B_o = -\Phi(t_{A1}, a, n) + \int(t_{A1}, a, n) - \lambda(t_{A2} - (t_{A1} + an))]$$

with the constraints $a > 0$, $n > 0$, $t_{A1} > 0$. 
The Italian migration pattern is characterised by: low educational level of emigrants, limited opportunities to obtain training or vocational qualifications either in Italy or abroad; employment at home limited to manual work, mainly in building and agriculture, and in other countries mainly in industry but nearly always as unskilled workers; on his return to Italy, the migrant has made no advance in vocational or cultural standards. In such conditions it is difficult for these workers to find a job, be it in a foreign country or on their return home, offering either material or emotional satisfaction.

For most migrants, therefore, the great need is to obtain vocational training and to raise their cultural standards. They have difficulty in settling in the host country, in improving their occupational and cultural level, and in profiting from available training opportunities.

Vocational training opportunities in the EEC and in the host country

The Treaty of Rome envisaged the development of a common policy for vocational training [cf. abstracts Nos. 1/01730, Vol. 2 and 7/B 4961, Vol. 4]. In 1963 the Council of the European Economic Community (EEC) laid down the general principles which constitute a legal framework for Community training activities for migrant workers. The member States may thus take common action for the purpose of maintaining an over-all balance in the supply and demand of labour in the Community, in particular in the field of accelerated training. These measures may be financed in common. However, because of the narrow interpretation of the provisions by certain countries, nothing has been done. It was envisaged also that workers migrating within the Community should have the same opportunities to attend vocational schools and further training centres as nationals, but, for the same reason, few migrant workers have been able to take advantage of these opportunities.

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It is now increasingly recognised that where language constitutes an insurmountable barrier the prospective migrant should, if possible, receive specialised training before departure. If not, he should at least receive training which will enable him to enter the vocational training system of his host country. [For action in this respect, see abstract No. 2/B 56606, Vol. 12.]

Action in Italy

Italy has concluded bilateral agreements with several countries (Belgium, France, Netherlands, German Federal Republic) containing provisions for the vocational training of migrants, the aim being to give Italian workers the same protection and the same opportunities as nationals in the host country. These agreements provide for collaboration between the Italian authorities and the host country for the purpose of organising vocational training for Italian workers. The Italian Ministry of Labour, whose responsibilities cover all aspects of vocational training, has increased the financial allocation for the Vocational Training Fund (Fondo per l'Addestramento professionale) for the training of migrants. The Foreign Ministry has urged receiving countries to give migrant workers on-the-job training, and has instituted in Italy preparatory courses (basic education, arithmetic, language of intended country, etc.) so that migrants may reap the full benefit of this training.

Various other organisations, working in co-operation with the employers and the unions, both in Italy and abroad, are engaged in overcoming illiteracy and in imparting minimum basic skills and knowledge to enable migrants to work in industry. Preparation of intending migrants should always start with basic vocational concepts and the language of the host country, then proceed to vocational training as such, both theoretical and practical, leading to a specific skill and eventually to a certificate of competence in the host country.

It is important also to standardise the contents of training and of the qualifications awarded, in order to encourage maximum mobility of labour between countries.
Italian migrants encounter serious problems not only in adapting to the social and working life of the host country, but also on returning home. The national vocational training office of ACLI, the Christian Associations of Italian Workers (Ente Nazionale ACLI Istruzione Professionale – ENAIP) has accordingly initiated certain activities to meet these problems. Two such initiatives, in Switzerland and the Federal Republic of Germany, are described below.

**ENAIP activities in Switzerland**

In the past, Italian workers generally came from rural areas to settle in poorly paid employment sectors more or less abandoned by the Swiss worker (agriculture, textiles, catering, domestic service). When the first measures were adopted to reduce the foreign workforce and modernise industry, the migrants turned to other occupations offering greater economic and social security, which safeguarded them against loss of employment following modernisation, while contributing to Switzerland’s economic development. They accordingly sought to acquire the qualifications required to fill jobs (mechanic, plumber, electrician, etc.) for which there is little competition in Switzerland and which would give them the possibility of setting up on their own account when they returned home.

The ENAIP courses are for young workers and poorly educated adults coming from the lowest social classes, who are unable to benefit from training opportunities provided by the Swiss. Training is on three levels: technical and vocational subjects, general education and trade unionism. The traditional purpose of training, which was simply to improve the worker’s value on the employment market, is subordinated to a broader concept, in which priority is given to quality of work and to encouraging the all-round development of the worker. Training thus becomes an instrument for political, cultural and social self-improvement.
The **ENAIP in the Federal Republic of Germany**

ENAIP does not limit its activities to giving instruction in the use of certain tools or techniques, nor to teaching the skills necessary for a particular trade. It seeks rather to strengthen the cultural base of the migrant worker, so that he may fit smoothly into the working life of the community and have a sympathetic relationship with the inhabitants.

ENAIP activities are closely associated with the recognised programmes given by the vocational schools of the country concerned and are adapted to national employment objectives. Germany puts offices, classrooms and teaching aids at its disposal.

The objectives are:

1. To overcome the migrants' cultural backwardness:
   - by making them aware of the opportunities offered them, particularly by the public authorities;
   - by consolidating the essential foundation of arithmetic and geometry taught in normal elementary education;
   - by teaching German, basic concepts of technical drawing, technology and physics;
   - by improving their communication skills, both oral and written, in Italian.

2. To impart middle-level qualifications, so enabling the migrant to take his place in the production process.

3. To impart mechanical skills.

The migrant can thus acquire the occupational qualifications required by the prevailing regulations in the host country.

[See also abstract No. 2/B 56607, Vol. 12.]
The Solomon Islands comprise a scattered archipelago with six major islands. The total population is 161,000 on 11,000 square miles and there are about 40 different languages. In 1970, 54.8% of the total population was under 19 years of age, while 44.6% was under 15 years of age. Sea transport between the Islands is vital and air communications play an increasingly important role.

In January 1973 the Social Services Committee of the Governing Council of the British Solomon Islands Protectorate appointed an Educational Policy Review Committee to study all aspects of education in the Protectorate in the light of present and future needs. In arriving at its conclusions the Committee received both written and verbal evidence. It met with approximately 11% of the adult population, but as many individuals represented groups of people the actual extent of the opinion covered was higher.

Financial restraints were such that the operating costs of any proposed new system should not increase at a rate greater than 5% per annum.

Main recommendations

The target for the proposed new education system should be to provide universal education for all children aged 7-14 by 1995 at the latest.

Primary education. Entry into primary school should be at 7 years of age (as at present) and should be preceded by 2 years of pre-school education in village kindergartens. The duration should be 6 years. Primary school curricula should be of a general nature designed to meet the needs of the majority of pupils rather than the few proceeding to academic secondary schools.

Secondary education. After completing primary school pupils should be selected either for entry to academic secondary schools (5-year cycle) or to enter terminal 1-year and 2-year courses with a practical bias at area

(cont'd)
secondary schools. This should remove to some degree the present stigma attached to those pupils who leave school after 2 years of post-primary education.

Selection for post-primary education should be based upon teacher assessment and aptitude and intelligence tests and not on written examinations. All pupils completing the second year in an area secondary school should be provided with a leaving certificate indicating the subjects studied and an assessment of the pupil's attainment, aptitudes and interests.

Primary and secondary level curricula should be oriented towards economic needs. A national curriculum committee should be set up by the Director of Education to promote curriculum reform at all levels.

Vocational training. Rural and urban training centres should run 3-year courses for area secondary-school leavers. Vocational courses in rural areas should aim to man successful co-operative ventures, while those in the urban areas should aim to develop the successful, small-scale business man. Government loans should be supplied to help those wishing to start their own businesses. In addition, there should be a wide variety of intensive short courses responding to specific local needs, e.g. fence construction, book-keeping.

Teacher training. Priority should be given to the improvement of the supply of trained teachers. Teacher training courses should have a duration of 3 years and be followed by 2 years' probation before certification. The teacher should be trained as an adult and youth organiser and should become the agent for adult education programmes. Agriculture should be emphasised in all teacher training courses. A variety of short courses in practical skills should be offered during the 3-year course to enable teachers to play a useful role in the community. A correspondence course should be designed to enable unqualified teachers currently in employment to qualify by 1976.

Post-secondary education. As regards higher education, technical education and teacher training, an economic fee should be charged and Government guaranteed loans arranged for selected students to meet these costs.

Administrative structure. The administrative structure to support the new education system should include a National Education Board, District Education Boards, Schools Boards of Management and a Teaching Service Board. The latter should ensure parity between civil service and national teaching service salaries.
ORR, D. B. (Ed.)
New directions in employability: reducing barriers to full employment

Proceedings of a conference on the problems associated with full employment and in particular with the employment of the disadvantaged: need for a systems approach; training patterns; supportive services; Government and private sector manpower programmes; general consensus for future action.

This book contains proceedings of a conference called by the National Graduate University under the sponsorship of the Bruner Foundation of New York City to consider problems and solutions relating to employability. "Employability" was defined so as to include problems of underemployment, as well as unemployment and job development. Specifically, the conference was to provide for an exchange of the latest ideas, information and methods for coping with unemployment and underemployment which have been found to be successful in one or more important aspects. Major governmental and private programmes to combat long-term unemployment as well as general issues, were reviewed. This abstract deals with the main points of agreement between conference participants.

- The key requirement at the end of any job training programme is to have work available. Whenever the private sector cannot absorb all those who are willing and able to work, the public sector should provide such opportunities. Given employment, the next requisite is the availability of further training and career prospects.

- The expansion of employment opportunities is a complex subject. It requires an integrated approach towards the problem that focusses on the interaction between employment, education and social services. Economic and socio-technical considerations may be even more important.

- More flexibility is needed in working out suitable training objectives with each individual. This might call for diagnostic services to help determine readiness for certain types of education, training or work experience as well as the need for supporting services. The latter should be tailored to individual situations and should be related to what appears needed for a successful outcome. The multiple problems of the disadvantaged call for a selective approach to supportive services.

(cont'd)
It is essential to look more closely at what works, why and under what conditions. Such information should form the basis for more effective policy and programme formulation. Research should concentrate on isolating those factors which seem to facilitate the productive employment of people.

There is a need to use training methods that enhance learning readiness, such as: learning by doing; the use of job-related teaching material; frequent feedback to trainees; retention of trainees in the training situation until they can contribute at least minimally to a given job situation.

Greater attention should be given to the retraining of workers displaced by technological change.

Sharp differences of opinion were expressed as to the appropriateness and value of psychological assessments of any kind for helping to determine trainees' suitability for given types of training programme or job.

Steps should be taken to reduce bureaucratic delays in approving courses, financing programmes, etc., by the Department of Labor.

The Federal Government should take the initiative for involving Federal, state, and local public and private sectors in the implementation of manpower programmes so as to reduce problems of fragmentation, friction and overlap.

There is an increasing demand by people to participate in decisions which affect them. This demand must be met so as to optimise human potential.
In referring to this abstract please quote N. B 56077

Author:
Title:
Bibliographical references:

Translation

Subject analysis

Contents analysis

[Educational policy and planning
Price: US$ 6.75; £2.38; FF 27.

Report containing comprehensive background documents on national education policies: national and social demand for education; education adapted to individual abilities and aptitudes; financing; annexes (guidelines for reform); statistics.

This book comprises reports prepared by the Planning and Research Department of the Ministry of Education of Japan, and is based upon a continuing series of studies on the development of the Japanese education system. These reports served as a basis for the OECD examination of educational policy in Japan in 1970 and for the deliberations of the Central Council for Education of Japan, then considering major policy reforms. This abstract deals solely with some of the major problem areas recommended for further study by the Central Council for Education.

Rapid economic development and the growing demand for education calls for research into the possibilities of providing all people with educational opportunities throughout their lives. This implies a reappraisal of the role and limits of school education and the examination of measures to give equality of opportunity for higher education.

It is time to determine whether there is a need to increase the structural flexibility of the educational system and to diversify curriculum content. The feasibility of extending the compulsory education period and the option of a more flexible formula concerning compulsory school attendance should be reviewed. Emphasis should be on providing children with an opportunity for equal and appropriate education in accordance with their individual abilities, aptitudes and environment. In designing a school system it is important to take each stage of the growth of intelligence into account.

On the basis of international comparisons national educational expenditure is high. However, reappraisal is required in the following areas: increases in capital investment to achieve qualitative improvements; the correct ratio of private to public expenditure bearing in mind the public nature of education; working conditions of teachers with particular attention to disparities in salary scales; an inquiry into the social, economic and cultural impact of educational investment.

(cont'd)
While definite conclusions cannot be reached as to the value of pre-school education, it is essential to study measures for promoting a balanced development of pre-school education and home education from the standpoint of the protection and education of small children.

At primary school level, several problems remain to be solved: the correlation of kindergartens with primary schools; the satisfactory development of the potential of school children in harmony with their growth; improved methods of assessing pupils' abilities and further analysis of the process of learning.

At secondary school level, there is a need to completely reassess the merits and demerits of subdividing secondary education into general and vocational streams. The problems are: how to organise courses in such a way that the choice of a vocational course does not exclude pupils from progressing to higher education; how to ensure that secondary education prepares those children who enter the employment market to adapt to their respective work situations; how to raise the status of practical courses; how to introduce a positive approach to career guidance which would consider the whole personality of the pupil and all his various aptitudes; how to develop creativity in young people.

Universities frequently fail to encompass their dual function of education and research. The objectives and content of university education remain unchanged although the demands on the system become increasingly varied. The continuous expansion of the university is inadequately handled due to inefficient administration. Teaching staff seem to be unaware of the new demands being made on them. It is essential to effect qualitative improvements in higher education in keeping with quantitative expansion and to re-examine the best way of categorising and effectively organising institutions of higher education in general. There may be a need for drastic structural reform.

There are problems of regional imbalances in the distribution of the teaching force and the quality of teacher training must be improved. Moreover, there is a tendency among particularly talented young people to seek outlets other than in the teaching profession. Measures must be found to correct these shortcomings.
[This paper reviews the projects carried out during the past 20 years to train the criminal offender for employment. Its primary purpose is to summarise and synthesise the conclusions reached by those projects funded by the Office of Research and Development (ORD), US Department of Labor (DOL), during the period 1963-1973 so that the experience gained to date can be used as a basis for improved Government-sponsored programmes. This abstract deals with various issues related to providing vocational training for criminal offenders.]

Experience has shown that it is feasible to carry out vocational training in prisons despite the often debilitating physical and social atmosphere of the prison. Although prison-based projects have provided training in a large number of occupational areas the main concentration has been in welding, automobile mechanics, upholstery, logging, technical drawing, and automobile repair work. In general it can be said that the training areas selected reflect middle-class biases concerning the type of work an offender is capable of and should be performing. There are indications, however, that offenders trained in higher level occupations perform better upon release from prison. The addition of new training areas, both blue and white-collar, should be considered. In addition training should be individualised through an open entry/exit structure in training programmes which allows trainees to learn at their own speed.

The level of training offered to offenders has generally been low (entry level). This has put the offender in direct competition for employment with a large group of non-criminal disadvantaged. It is therefore not surprising that jobs obtained by offenders are not training-related and that turnover occurs within a few months following placement. Training programmes should work towards specific commitments between those who do the training and those who control job entry so as to: (1) assure a training programme and level of skill which takes employers' needs
into account and (2) provide a direct link between training and potential employment.

Effective job performance and stability in a job depend upon the acquisition of work-related attitudes and social skills. Experience has shown that the work difficulties of offenders often stem from poor adjustment to the general work setting and a lack of necessary social and work-related behaviour. Systematic training in job-related areas such as work habits, personnel policy regulations, and social skills should be implemented in every programme.

Experience has shown that training programmes based in or linked to the community are more successful than programmes given in the prisons. Such training programmes promote gradual integration into society and are more realistically oriented towards future employment.

General education has generally played a secondary role to the vocational component in most projects as it has reinforced an environment in which offenders have previously experienced failure. However, non-traditional approaches to general education should be developed, tested, and refined for use in offender programmes.

Counselling has meant different things in different projects. Despite disagreement about what to do to whom and under what circumstances, project experience points to an important role for the counselling component. However, such counselling should be behavioural rather than pathological in its approach.

The motivational power of the interpersonal relationship is not easily measured but apparently is very strong. According to some projects, the counsellor-counselee relationship characterised by trust, support, and concern may be at the centre of a project's strength - especially when the counsellor is a trained para-professional utilising non-traditional techniques.
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La formación de la mujer

The training of women

Report on vocational training for women in Spain: policy for improving career prospects; situation and development from 1965 to 1972; observations; conclusions; statistics, diagrams, annexes.

The General Office for Social Advancement implements a policy for the advancement of women in employment within the National Workers' Promotion Plan (promoción profesional de trabajadores, PPT). This policy has been considerably strengthened since the publication, on 23 August 1970, of Decree 2310/1970 on the rights of women in employment. The Office recently concluded an agreement with the Women's Section of the Movement for the Protection of Women (Patronato de Protección de la Mujer) for the purpose, essentially, of: (1) training instructors from the Section in the techniques of the workers' promotion programme (promoción profesional obrera - PPO), and (2) participation by the Section in preparing programmes of interest to women.

Observations.

The number of girls at primary school is proportionately the same as boys. It is considerably lower at junior secondary schools but about the same in secondary technical schools where, however, general attendance is in any case relatively insignificant. It is somewhat higher in teacher training colleges and the fine arts. Very few girls (4.5% over-all) take vocational training and only 3% technician training. Two-thirds of university students are boys.

Women trained by the General Office for Social Advancement (PPO and PPT) totalled 127,025 between 1965 and 1972, with a marked rise in 1970 (428 for every 100 in 1965).

The distribution as between the primary, secondary and tertiary sectors revealed a strong emphasis on tertiary occupations: 29,403 women were trained in this sector in 1965–1972, representing 77.8% of all women trained and 60% of all persons trained in the tertiary sector. The number of women trained for agricultural work increased slightly. Over-all, the proportion of women trained rose from 25% of all trainees in 1969 to 33% in 1972.

(cont'd)
Training is mainly for occupations traditionally considered feminine. The breakdown for 1972 showed a heavy concentration in textiles, hotels, office work and as shop assistants. Women are however making tentative inroads into occupations formerly considered masculine preserves (134 courses for different occupations including, for example, industrial draughtsman, in which they represented 8.5% of total students).

The number of courses for women in rural areas is noteworthy. In 1972, they totalled 18,721, being 48.5% of all courses for women that year.

Conclusions

The lower level of general education of women as compared with men, and consequently their inferior qualifications for employment, underline the need for raising the standards of the female workforce.

The PPO should be able through its own exertions to remedy the inadequate participation of women in agricultural courses, which results no doubt from strong social prejudices in this area. Women, after all, form a considerable part of the workforce on the land.

Also inadequate are the numbers being trained for the food and drink industry, bearing in mind the large number of women it employs with mediocre qualifications. The considerable possibilities of the female workforce in this sector are at present almost totally ignored.

[Statistical table showing: results obtained and breakdown by training institution, economic sector, district, occupational group, etc.]

[See also abstract No. 1/B 34414, Vol. 9.]
MEISTER, A.
Alphabétisation et développement

Literacy and development

Book on the effects of an experimental functional literacy programme: origin of the concept of functional literacy and its ambiguity; analysis of the execution of literacy projects; defining literacy situations; literacy and productivity.

This study is based on data obtained in the course of an experimental programme carried out by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) which embraced 12 pilot projects in: Algeria, Ethiopia, Equador, Guinea, India, Iran [cf. abstract No. 13/B 53651, Vol. 12], Malagasy, Mali, Syria, Tanzania and Venezuela. The programme was launched at the Conference of Ministers of Education on the Elimination of Illiteracy, Teheran 1965, following the repeated disappointments of mass literacy campaigns. Its principal aim was to study whether literacy training combined with a measure of vocational training would lead to economic development.

The study sought to analyse the difficulties encountered by functional literacy programmes and to assess their chances of success by reference to social, economic and cultural situations.

Before trying to analyse the correlation between literacy and economic development, it is necessary to define the different literacy situations, by reference to local economic conditions in relation to the factors outlined below.

1. The extent to which the economy maintains its traditional structures: the traditionalism of an enterprise being assessed in relation to (a) specialisation, (b) capitalisation, (c) organisation.

2. The sense of purpose brought to development, measured by the existence of plans and of personnel and equipment needed to implement them.

3. The degree of liaison between the literacy programme and the economic development programme (degree of functional content).

The co-existence of these three factors enables a distinction to be made between the different literacy situations. The working hypothesis is that the chances of success will increase in relation to the extent to which...
these three factors are presented: modernisation, sense of purpose, functional content.

**Relationship between functional literacy and productivity**

**Situation 1:** no apparent result; stimulus of literacy too weak to overcome apathy; at the most, use of more exact indicators might show greater awareness of the outside world.

**Situation 2:** certain improvements in methods of cultivation, indicating a change of attitude; peasants turn more frequently to technicians and doctors; however, programmes in which commercial problems were resolved produced best results and it was difficult to ascertain the role of literacy as such.

**Situation 3:** available results do not yet allow of reliable conclusions, but one programme led to a productivity increase of 6%.

In addition to the anticipated results, literacy programmes have unpredictable side-effects: on individuals (change in personal and social relationships); on the educational system (changes in content and methods, teachers' attitudes, etc.); on access to the world of modern culture, particularly with regard to audio-visual media. All these side-effects are of a social character and so confirm previous observations that changes that have been taking place in developing countries for several decades affect customs and modes of thought more than economic development. This raises the question whether, contrary to the experience of the industrialised countries, social progress does not after all lead to economic development.

[The study deals, in addition, with: the organisation of projects, enrolment, training of instructors and their conditions of employment, structural and institutional obstacles, shortcomings of the research of technical obstacles, cultural barriers.]
In referring to this abstract please quote
N° B 54831

PHILLIPS, H. M.
Planning educational assistance for the Second Development Decade
Paris, UNESCO: International Institute for Educational Planning,
1973, 75 p. Price: US$2.55; £0.75; FF 8.

Translation

Monograph on current patterns of educational aid to developing
countries: analysis of current criticisms; problems and difficulties;
suggested strategies; summary of suggestions.

Subject analysis

[The booklets in this series were written for: persons engaged in educa-
tional planning and administration, especially in developing countries;
those who seek a general understanding of educational planning in the
context of national development. This abstract deals only with the
general conclusions.]

- The needs of the 1970s are that educational aid to developing countries
should concentrate less on quantity and more on renovation and quality.
It should also contribute more to social, as well as purely educational
or economic, objectives. While this is widely appreciated, little actual
redemption of aid is yet visible.

- Meanwhile, existing types of educational aid should not be cut off but
should be evaluated and progressively improved. Suppliers of aid
should therefore review and clarify their aid objectives and strategies,
and make a distinction among: (a) long-term strategy (reform); (b)
medium-term bridging operations (quantitative and qualitative support of
ongoing systems); (c) tactical action (innovation, reduction of specific
bottle-necks). Preference should be given to projects with a multiplier
effect.

- Educational aid should be increasingly institutionalised and should
move away from the system of using individual experts towards a greater
use of universities and educational centres, in both the developed and the
developing countries.

- More assistance needs to be allocated to educational research and
experimentation utilising local institutions and experts. Aid funds
should be used to develop local initiative for educational regeneration.
Aid should also be used to support risk-taking and trial runs of new
educational patterns suited to local conditions. To spearhead such
activities, an international centre for educational research and innova-
tion for the developing countries might be set up.

(cont'd)
- Each educational aid agency should set up a small "ideas group" to monitor the development of its present programme and to consider future improvements.

- Bilateral and multilateral agencies should circulate their reports widely and create more information co-ordination groups. There is a need to improve communication in all aspects of educational aid.

- There should be: a review of the effectiveness of aid given to technical and vocational schools in the formal education system; increased aid to non-formal education; some consideration of official aid for non-governmental and commercial education and training institutions.

- Special priority should be given for aid to assist countries to attain basic education for all; and to forms of instruction to improve the employment possibilities and living conditions of unemployed youth. Aid between developing countries should be encouraged.

- Forecasts should be made of the material needs for education on the basis of various assumptions. Procedures should be worked out at both the international and the national level to alleviate foreign exchange bottle-necks affecting the supply of educational materials. A technical assistance project should be set up to improve evaluation procedures applied to educational planning.

UNESCO should issue a publication detailing sources and conditions of aid in education and a manual should be published on how to identify, prepare and assess aid projects. Models of educational reform should be prepared, costed and set beside existing models. Officials from both aid-providing and aid-recipient countries should meet to discuss the technical problems of educational aid.
As part of preparatory work on the Economic and Social Development Plan, on employment prospects and the demand for skilled workers in the 10-year period 1971-1980 [cf. abstract No. 2/B 51269, Vol. 12], the Directorate of Planning and Development of the Republic of Chad has studied the problems of employment and underemployment in agriculture and the rural areas, in order to identify the elements of an employment policy in these fields. Eight principal elements were defined (need for adequate statistical data, increased agricultural productivity and income, motivated workers etc.). Two are summarised below.

**Labour-investment and youth mobilisation.** A country must depend for its development on its own resources, not on foreign aid. Chad has little capital but plentiful land and labour. It must therefore mobilise to the maximum the potential of its unemployed workforce. Following an assessment of the wasted work days represented by unemployment and underemployment, a co-ordinated labour-investment programme should be launched. The army could make a valuable contribution by providing most of the supervisory personnel required.

To involve young people in development, a national service might be instituted characterised by:

(a) mobilisation of the unemployed youth in each locality who would then receive a guaranteed income;

(b) an appeal to young persons with secondary or higher education, or having other necessary qualifications, to help for one or two years with courses in general education, vocational training, medical care, functional literacy or rural development; access to higher education would be subject to a preliminary period of development work in the rural areas;

(cont’d)
(c) reorganisation of the Chad Youth Movement (Mouvement de la jeunesse tchadienne, MJT) on the following lines: expansion of activities to draw in a larger number of unemployed youth; massive increase in financial and material resources and in skilled personnel; inclusion of the Movement in the national development Plan and its co-ordination with other programmes for the utilisation and enrichment of human resources.

Ruralising education. Education in Chad tends to uproot young people and so encourage the rural exodus. After 4 to 6 years of school, the former pupils, cut off from their environment, are if anything an obstacle to development. Primary education should be restructured: its duration reduced from 6 to 5 years; minimum starting age 7, maximum 9; elimination of repeater years, as primary schooling would be a continuous, uninterrupted process; abolition of the primary-school certificate in favour of a simple leaving certificate attesting completion of 5 years' schooling.

A more radical reform and integration of the school system into the rural environment would: make parents accept the role of educators; encourage villagers to take part in the forms of education which meet their needs and in its objectives; define the objectives and type of education by mutual agreement of the school and the local population; give importance to the social education of children, to relations with parents and to preparation for employment. Schoolmasters must accept the genuine participation of the villagers and associate the village as a whole in this work, so as to prevent a cleavage between the children's parents and the other adults in the village.

The different measures proposed for promoting rural employment would be fully effective only if integrated in a national development strategy framed in terms of the needs, potential and characteristics of the populations in question.
Orthodox economic doctrine measures the wealth of nations by income, that is, by Gross National Product or Gross Domestic Product per capita. Thus, advanced nations are by definition those with high GNP per capita; and under-developed countries are characterised by low per capita income. Rates of growth are measured by annual increments in national income. This approach assumes that all will be well if there is sufficient growth in aggregate income. From this perspective, unemployment and other manifestations of under-utilisation of human resources are mainly the consequence of an insufficient rate of economic growth.

The prosperity of nations need not be measured solely by GNP per capita growth. In fact, there is a growing body of opinion which maintains that other indices of development — education, nutrition and health — should be taken into account particularly as far as developing countries are concerned. There is no reason why developing countries should not achieve substantially higher living standards without high scores on the GNP index.

Once having queried the sanctity of the GNP yardstick, it is possible to start from a completely different premise in assessing the development of a country. One such premise is to assume that human resources, not monetary indices, are the ultimate basis of wealth.

Adopting this viewpoint, the goal of development becomes the maximum possible utilisation of human resources in more productive activity and the fullest possible development of the skills, knowledge and capacities of the labour force which are relevant to such activity. Productive activity is broadly defined to include not only production of goods and services but also the work of artists, musicians, writers and many others. In this definition they are all members of the labour force.
The human resources approach makes the following assumptions: (a) in most countries the skills, knowledge and capacities of labour forces are developed far short of their practical potential; (b) even lacking natural resources and material capital, the less developed countries can prosper by maximising the production utilisation of their labour force. Accordingly, the focus of the development process shifts to human rather than material agents.

The human resources approach, by emphasising the generation of better employment opportunities for all segments in the labour force, stresses distribution of wealth more directly than the GNP approach. It is centrally concerned with who shares in the productive activity as well as with what and how much is produced. Stress is placed on reducing inequalities of opportunity. In addition to providing greater material wealth for a greater number of individuals, it will aim to provide better health, better nutrition and better education.

The building of nationwide learning systems encompassing all formal as well as nonformal education is integral to the human resources approach. Although not questioning the ideal of universal primary education, the human resources approach would stress broader goals: universal opportunities for learning of some kind which would increase the effectiveness of everyone — adults as well as children — as participants in the labour force. It would seek to build all relevant learning activities into a comprehensive learning system geared closely to present and future opportunities for productive work. Thus, by trying to build such a learning network, all countries may prosper even if they are poorly endowed with material wealth or natural resources.

However, when all is said and done, development of any kind depends upon good organisation. Good organisation leads to the maximisation of possibilities. The hope, in adopting the human resources approach, is that the emphasis on the human element in development processes will bring forth a growing number of persons with entrepreneurial, managerial and organisation-building skills.

It is quite unlikely, of course, that any country will ever adopt the human resources approach completely in planning its development strategy. In practice, such strategies are the result of compromises on conflicting goals. All that is suggested is that economists might do well to use their econometric tools to look at more than national income generation.
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**Author:** HALLAK, J.

**Title**
Financing and educational policy in Sri Lanka (Ceylon)

**Bibliographical references:**

**Translation**
Case study on financing and educational policy: past socio-economic trends; analysis of the 5-year plan; growth strategy in the 1970s; feasibility of educational strategies in relation to available financing; bibliography. [This abstract is limited to giving the general context of the case study.]

**Contents analysis**
This report forms part of a wider research project launched by the International Institute for Educational Planning (IIEP) in 1970 to assess the real possibility of countries financing their educational objectives in the course of the United Nations Second Development Decade. The project is being carried out in member states of UNESCO in close collaboration with national specialists. It will culminate in a synthesis report relating to the project as a whole.

The aim of the project was: to explore the real impact of probable financial constraints on the development of educational systems; to define a strategy of educational financing more closely adapted to socio-economic realities and to available resources.

Two types of study are being undertaken: (1) national case studies for the retrospective (1961-70) and prospective (1980 or beyond) analysis of the financing and costs of educational systems in at least 15 countries; (2) specific case studies covering possible methods of financing, ways of raising supplementary resources and measures to reduce costs.

In Sri Lanka new educational reforms have been introduced to remedy socio-economic difficulties, namely, that the existing educational policy is not an effective instrument of development, and that the unemployment rate is particularly high among young people with secondary and higher level education.

The most significant elements of the reform are the following. Entry into primary school has been postponed from 5 to 6 years of age and the duration is limited to 5 years; junior secondary education covers 4 years but must include prevocational training corresponding to local economic activities. Access to this latter cycle will be unrestricted so as to prepare the mass of young people for productive activity. Access to other educational levels (senior secondary, technical and university) is to be determined solely in the light of manpower requirements.

(cont'd)
The effects of these reforms on educational costs will be: a decrease in the proportion of the budget going to primary level; a major increase in the proportion allocated to junior secondary level; and some increase in the proportion devoted to selected specific sectors of education.

Ideally, any financial analysis should examine the cost consequences of each component of the reform. Unfortunately, available data do not make this possible. Such data as are available however indicate that certain hypotheses relating to educational costs seem to be highly disputable.

For instance, it has been assumed that a part of the costs of introducing prevocational training in junior secondary education will come from parents and local authorities, and teaching will be given on a voluntary basis. However, this assumption remains to be tested and the likelihood is that if no firm financial provision is made there is a possibility that the reform will not be properly implemented.

Furthermore, forward projections to 1980 on the basis of current planning show that there will be a likely deficit in the public education budget. Add to this the fact that it is highly improbable that the anticipated economic growth rate of 6% per annum will be realised and it is evident that other possibilities will have to be investigated if the reform is to be implemented.

An even more serious limitation to the financial estimates that have been made is that they can give the illusion that an adequate educational budget can solve the unemployment problem. In reality, this is not the case. Assuming successful introduction of the reform and prevocational training at junior secondary level, it is easy to foresee what will happen to school-leavers if no adequate financial provision is made to generate sufficient employment opportunities.

[Other studies in this series relate to Iran, Kenya, Scandinavia, United States of America.]
In referring to this abstract please quote No. B 51636

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Serviço Nacional de Aprendizagem Comercial (SENAC)
Demanda de mão-de-obra e necessidade de treinamento no ramo de restaurantes, churrascarias e pizzarias da cidade de São Paulo
São Paulo, SENAC, 1972, 143 p.

Translation

Manpower demand and the need for vocational training for the restaurant trade, including barbecue and pizza establishments, in the city of São Paulo

Subject analysis

Survey report on employment in the restaurant trade: need to train skilled personnel in view of the growing tourist trade; present position (educational level and training of employees).

Contents analysis

The increase in the number of all categories of restaurants — in anticipation of expanding domestic and foreign tourist trade — has revealed the need to provide adequate vocational training facilities staffed by qualified instructors. Some modest steps have been taken in this direction since the 1950s and the trade interests — employers and employees — are now agreed that something must be done to set up training on a sound basis.

The National Commercial Apprenticeship Service (Serviço Nacional de Aprendizagem Comercial — SENAC) has for this purpose carried out a series of surveys to assess the employment market in the hotel and restaurant trade and employers' attitudes to staffing.

One of these surveys took place at São Paulo [the largest city in Brazil, with about 10% of the total population]. It covered 1,080 restaurants, with about 10,000 employees, and threw light on employers' attitudes towards staff training, the present situation in this respect and on needed action.

Method

Data were collected on the basis of a questionnaire divided into three parts: (1) description of the undertaking, (2) staff recruitment and training, (3) occupational pattern and mobility within the establishment.

An "undertaking" was defined as a group of establishments including the parent company and its subsidiaries. "Establishment" covers single companies only. Undertakings and establishments were classified in three groups: small (1-19 employees), medium-size (20-49) and large (50 or more employees).

Findings

The level of education was generally very low. As an example, in one of the São Paulo districts, out of 20 employees none had a secondary education, 6 had completed primary school, 7 had had some primary schooling and 6 none at all (there was one "No reply").

(cont'd)
Employers' requirements regarding their staff's educational background were not very exacting. In one district, out of 11 employers, 4 insisted on full primary schooling, 3 were satisfied with some primary education and 4 saw no need for any schooling at all. In general, what employers wanted was: some experience in the trade (64% of replies), efficiency (33%), aptitude for the trade (24%), sense of responsibility (21%). Next in order came the applicant's appearance, references, literacy (2%) and educational level.

Staff recruitment was affected through various channels in a haphazard fashion: personal contact, direct approach by the applicant, introduction by a third person, newspaper advertisement, notices on establishment's door, employment agencies or trade unions, the Department of Labour.

As for vocational training, the number of employees who had taken a full course either before or after being engaged was even more limited, barely 20 in total and most of them on their own initiative. Most of the establishments offered only some unsystematic introduction to the work: only about 10 offered rudimentary initial training and only 13 any further training.

The demand for skilled personnel was mainly for cooks, kitchen waiters and waiters. Small and medium-scale employers were more interested in further training possibilities than the big establishments; but the main demand for higher qualifications was from employees who wanted to be able to command higher wages.

In view of the situation and general lack of qualifications in the trade, the survey tried to find out why employers and employees paid so little attention to SENAC's specialist training courses which are organised within industry and in the vocational schools. Without coming to any definitive conclusions, the general impression was that the courses were very little known. A much bigger publicity effort is obviously needed, with lectures, seminars etc. to promote both the courses and the schools.
In the vocational secondary schools, general subjects are taught alongside vocational subjects throughout the schools' 3-year instructional cycle. To forge suitable links between the two, it is essential first of all to isolate from the elements common to general education (key subjects) and vocational training, those which lead, when allied to the concepts and data taught in vocational subjects, to the practical interpretation of the fundamental principles (theories and laws) of the basic sciences.

Links must be established between general subjects which are the same whatever the intended occupation and vocational subjects which vary according to the occupations studied. As a rule, vocational subjects need to be closely linked with general subjects such as mathematics, physics, chemistry or given branches of the basic sciences, e.g. electricity as a branch of physics.

General subjects in vocational secondary schools should therefore be organised in such a way as to emphasise and increase the study of the basic sciences or branches which are the key subjects of each occupational group. This has been done on the basis of an analysis of the 513 different occupations currently being taught in vocational secondary schools. The study enabled six broad occupational groups to be established on the basis of common and characteristic training elements. For each of the six groups, the basic sciences or branches listed below constitute key subjects on which links are to be forged between general education and the occupation or occupations for which students are trained:

1. Mechanics and assembly (turners, fitters, assemblers of metal constructions): geometry and mechanics as a branch of physics.

3. Thermal machine operation: the section of the physics course dealing with the molecular physics of heat, the process of combustion, mechanics and electricity.


5. Agriculture: biological chemistry.

6. Building: the parts of the chemistry course dealing with the chemical composition of construction materials.

It is recommended that the solution of vocational problems specially devised to develop the student’s intellectual capacity should be included in general education. This will prepare him to apply the scientific principles he has been taught to the problems he will encounter in working life.
MOOCK, Joyce, L.
Pragmatism and the primary school: the case of a non-rural village
Africa, International African Institute, London, Vol. 63, No. 4,

Article on a survey carried out to determine socio-economic patterns in
a rural area and their relationship to the educational system and
employment expectations.

A study was carried out to analyse the educational needs of a small
community in Kenya in terms of its changing socio-economic patterns.
The objective was to show how attitudes towards the school system have
their roots in these patterns. The data — based on questionnaires and
interviews — were drawn from a 19-month study in South Maragoli loca-
tion in Kakamega district, Western Province. The sample comprised
139 primary-school leavers from three different schools and 159 house-
holds in the schools' constituent villages. The purpose was to ascertain
primary-school leavers' employment expectations, entry channels into
employment, and the way in which the community influences the school
system to suit its particular needs.

The most outstanding characteristic of Maragoli was the high population
density, estimated in 1969 at approximately 1,500 persons per square
mile. Such population pressure has created many uneconomic farm
units and the result is extensive labour migration to the major towns.
Maragoli has therefore become a dormitory town in which a land-starved
population, dominated by women and children, is dependent upon money
sent by the male wage-earners from outside.

Given a situation in which the land can no longer offer employment
opportunities to the young, Maragoli parents have turned to the school
as the only alternative which might provide their children with a satis-
factory future. They hope that education will lead to employment which
will enable children to purchase their own farms. Outside employment
is a necessity rather than a choice. The desperation with which parents
look to the schools to solve their difficulties reflects the socio-economic
constraints of the area, and is reinforced by the personal experience of
the members of the community. Both pupils and parents view schooling
as a means of obtaining a steady income to satisfy obligations to their
families and invest for their future in the local community.
Community attitudes towards education have forced the schools to provide academic education leading to secondary school entry or to non-agricultural occupations. Due to the large number of pupils repeating courses the final leaving age from primary school is generally very high. Out of all the pupils in the sample group only 19% were under age 16. The pattern of repeating results in an undesirable overlap of ages, e.g. one final year primary class contained children from 11 to 22 years of age. Parental desire to keep children at primary school until they achieve entry in secondary school slows down the system, blocks the implementation of a curriculum related to the local environment and makes the teaching of any subject difficult.

The existing situation is therefore one in which the attitudes of both parents and children are related to the current socio-economic pressures. The objective of both is remunerative employment. School-leavers express willingness to accept any type of further education leading to a job and parents are willing for their children to follow vocational training courses. However, such courses are difficult to find, expensive and offer no guarantee of a job. Furthermore, vocational training programmes deal mainly with elementary rural skills which have no relevance to the contemporary economic scene and do not lead to self-supporting employment. Until this situation changes there is little choice but to cling to the academic school system.

Thus, contrary to many assumptions, rural behaviour patterns are not based upon the inertia of traditionalism but are directly related to the socio-economic environment. Any successful reform of the existing education systems must take this into account.
In referring to this abstract please quote N° B 55815

Trainee
Young
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ISCO
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CIRF
3 
Country
Kenya

Author:
ELKAN, W.

Title:
Out-of-school education training for primary-school leavers in rural Kenya: a proposal

Bibliographical references:

Translation

Subject analysis
Article on the problem of effective training for employment for the increasing number of primary-school leavers: suggested strategy for providing the required training and education.

Contents analysis

[This report contains studies prepared by specialists with experience of the African scene with a view to improving existing employment strategies. It has been published within the framework of the ILO's Jobs and Skills Programme for Africa (JASPA), launched in December 1969 as the African component of the World Employment Programme — cf. abstract No. 2/B 50756, Vol. 12.]

In Kenya an estimated 150,000 children leave primary school each year, of whom probably not more than 30,000 receive some form of further education. This situation perpetuates the shortage of people with intermediate skills and does nothing to raise the standards of literacy and manual competence which are essential for rural development.

Modernisation requires the dissemination of aptitudes, both intellectual and manual, for which 7 years of schooling can only have supplied the rudiments. The maintenance of literacy levels and further education in manual skills — the use of simple tools and the maintenance of simple equipment — are essential if investment in primary education is to yield returns in the form of faster rural development.

In arriving at a strategy for providing further education for those primary-school leavers for whom there is no opportunity of going on to secondary school, certain constraints are over-riding. First, any solution must not be too costly. Secondly, it should lead to a more effective and a more lucrative life in rural areas and counteract migration to urban areas.

One suggestion put forward is to increase the number of village polytechnics. However, there is a risk that they may tend to lead to unrealisable expectations as they are run by the christian missions. Moreover, it is doubtful whether they can provide for the large numbers involved. A better alternative may be to use the existing youth centres. The youth centres are the responsibility of the county councils, which provide the buildings, staff and equipment. They are supervised by community

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development assistants (employees of the county councils) and by the district community development officers employed by the central government. The latter are ultimately responsible to the Director of Social Services in the Ministry of Co-operatives and Social Services.

At their best youth centres provide the post-primary education that is needed — a mixture of conventional reading, writing and arithmetic, and an equal amount of time spent on practising the use of simple tools. Unfortunately they do not all operate at the same level. The aim should be to bring the less effective ones up to the standard of the best. This will involve: (1) an adequate supply of tools and materials and (2) an academic curriculum that follows on from primary education rather than overlapping with it.

It is not easy to demonstrate that a wide ability to use hammer and nails efficiently will have any specific effect on the growth of rural incomes but it must be obvious that not to be able to do so, and not to be able to read and understand farmers' magazines or printed manuals for a new piece of equipment, is bound to hold back progress. In the advanced industrial countries these skills are normally passed on by parents, but in the developing countries there first has to be a generation of parents who have acquired them.
Subject analysis

Article on some of the problems relating to vocational training in the model on educational reform suggested by the Committee of Experts: counter-proposals.

Contents analysis

The report of the Committee of Experts on the educational situation in Poland contains proposals aimed at the introduction of universal access to secondary level education [cf. abstract No. 1/B 56512, Vol. 12]. The report of the Committee contains an accurate assessment of the educational system but the proposed model requires several clarifications, particularly as regards the problems relating to vocational training.

According to the proposed model, the instruction received by pupils in the 4th to the 8th years of common general education (duration: 11 years) would include basic general and technical subjects. These subjects were not, however, described in any detail. They should be based on 2 disciplines — mechanical and electrical engineering. This would mean equipping the school workshop sufficiently well to enable the pupils to develop practical abilities needed by fitters-mechanics and electrical equipment assemblers but not necessarily the skills to actually work at the trade. The objective should be to encourage pupils to become interested in manual occupations and to provide adequately equipped workshops in which they can develop their abilities for such occupations. The determining factor behind the proposals is therefore to ensure appropriate material facilities and working conditions in the workshops of the new school system. Thus contact with a well-organised workshop from the 4th school year onwards should help young people to develop an interest in production work. It should also remove the barrier which, for many pupils in general education schools, still exists between intellectual and manual work.

As far as actual vocational training is concerned, the Committee of Experts suggests dividing pupils into groups according to their interests and abilities from the 9th school year onwards. In these groups (classes), the pupils would receive a broadly-based initial training followed by specialised training given by the employer. However, while
recognising the stake that employers have in training young people, it must not be forgotten that production is the main objective of the undertaking. Training activities of undertakings should therefore concentrate on occupational adaptation and further training; vocational training should be given within the school system. The training function of the school should be carried out by allocating the various groups of pupils within the context of 5 technical options where two-thirds of the daily instruction will be devoted to basic sciences, to technical and occupational subjects and to workshop training and the remaining one-third to general subjects relating to the humanities. This vocational instruction would be followed by training to become a highly skilled worker (duration: 6 to 18 months instead of 24 as anticipated in the report) in centres specially organised by the school authorities in collaboration with the economic sectors concerned.

Training for team leaders and foremen, instead of being given in vocational schools as suggested in the report, should be the responsibility of undertakings and should only apply to workers who have already acquired a certain amount of work experience.

The proposal of the Committee of Experts concerning the introduction of advanced vocational studies for technician training is perfectly justified.
In a society which judges people by their productivity and efficiency, the handicapped tend to be outcasts. For some years, however, there has been a movement away from the belief in economic growth as an end in itself and towards a greater emphasis on the quality of life. One of the consequences is that the handicapped are no longer regarded as being on the outskirts of society.

For the population at large specialised institutions are rapidly losing ground to a system of services open to all. In contrast, in the last 15 years there has been a growing tendency to place the handicapped in specialised centres. Technically, it is easier in this way to cater for their special needs, but the result can be their permanent exclusion from society. Culturally and politically, this policy constitutes a grave weakness in the organisation of services whose purpose should be to overcome the isolation of the handicapped and the discrimination they suffer, to promote in fact their full and effective participation in society.

These considerations led the town of Torino to launch an experiment in the field of vocational training in an attempt to assist those who are handicapped.

Description of the experiment

A network of services for the handicapped exists in Torino, connected with pre-primary and with compulsory schooling, but there is no co-ordinated provision when it comes to vocational training which is a vital factor in the successful insertion of the handicapped into society. Such institutions as exist are few in number and fall far short of demand. They are, moreover, special centres, concentrating on rehabilitation and having none of the open character now expected of enlightened social services. It was this state of affairs which led the municipality to experiment in centres under its control, with a view to resolving some of the problems. It did not expect to produce final answers.
In 1972-73, two training courses for the handicapped were started, each with 15 students, one for boys and one for girls. These courses were aimed at students leaving the special schools and having below average mental capacities. They were preparatory courses, oriented towards industrial sewing and dressmaking for the girls and towards the electrical and mechanical trades for the boys.

To combine the necessary specialisation with the principle of the open institution, the courses were organised in the centres already catering for the non-handicapped. The general services are therefore used by both. Certain adjustments were made to integrate the handicapped, to which was added a general programme to stimulate understanding of the problem, to engage the interest of the families of all the children, handicapped and others, and to train the teachers and staff of the centre.

The object was to create a combination of conditions favouring the insertion of the handicapped into what for them is a strange world, by eliminating all possible indications that they were not wanted. The staff of the centres were specially trained for this purpose. Special courses were organised for them staffed by instructors for practical training techniques, a teacher for general education subjects and a complete medical and psycho-social team to co-ordinate the training activities, to detect individual aptitudes and to give vocational guidance.

The experiment has been in progress for two years. The results are being studied by a working party made up of all the interested persons.

First impressions

The families of the handicapped students have observed certain positive achievements: greater self-confidence, the awakening of the will and ability to study and learn a trade, the widening of social relationships and friendships. The problem of placing the trainees in employment will only come at the end of three years, when the training is complete.

The admission of handicapped persons in vocational training centres involves a rethinking of the structure, content and techniques of training. It may be at the regional level that these difficulties must be overcome.
Decree No. 73-563 of 27 June 1973 to bring into operation Article 42 of Act No. 71-575 of 16 July 1971, concerning the organisation of continuing vocational training as a part of lifelong education.

Decree regulating training schemes for established civil servants: continuing vocational training; preparation for internal competitions; further training provided in response to employee demand.

[Abstract No. 1/L 126, Vol. 10, summarises the Act concerning the organisation of continuing vocational training as a part of lifelong education of 16 July 1971.]

The Decree issued in part-implementation of this Act deals with continuing vocational training and the social advancement of established civil servants. There are three types of scheme.

1. Continuing vocational training courses for civil servants

These will be organised and financed by the administration concerned by means of a series of courses and in-service training, etc., to enable civil servants to acquire further related theoretical and practical training in order to:

- prepare for a new post;
- maintain or update professional skills and knowledge;
- adapt their skills in the light of administrative or technical changes, cultural, economic and social progress, or undertake any retraining which such changes may make necessary.

2. Training for administrative competitions

The following courses shall be organised or recognised by the administration concerned; correspondence courses and courses wholly or partly taking place during working hours. The courses enable civil servants to prepare for administrative competitions for promotion or transfer to another type of post.

Trainees are relieved of some part of their duties — either to follow or give such courses if they take place during working hours, and are paid according to the regulations in force.
Permission to attend courses shall be given according to the number of places available and the exigencies of the service. There is provision for appeal against repeated refusals to attend such courses. A civil servant who has been given leave for a course cannot apply again until after 12 months from the end of the training session.

3. Individual training choices

Civil servants may apply for leave to:
- pursue research or further study;
- acquire supplementary training;
- take part as a teacher in continuing vocational training courses.

They may receive financial assistance from the State, or a study fellowship, the details of which will be requested by Ministerial Orders.

The Co-ordination Group set up by the Decree (No. 73-562) of 27 June 1973 will report every three years to the Interministerial Committee on Vocational Training and Social Advancement (Comité interministériel de la formation professionnelle et de la promotion sociale) on the provisions governing the application of the Decree and may suggest any modifications.
Law of 4 October concerning the introduction of educational leave

A system of educational leave has been set up in order to:
- provide civic training for young people by enabling them to participate in periods of practical training, study days or seminars and formal and informal meetings both at home and abroad;
- provide training, including further training, for youth leaders and senior personnel in youth movements;
- provide further training for adults who wish to improve their skills and knowledge by attending recognised courses.

Educational leave shall be available to:
- all young people residing in the Grand Duchy under 25 years of age and already in employment in either the public or the private sector;
- youth leaders and senior personnel in youth movements who are not more than 30 years of age;
- adults, without age limit, employed in either the public or the private sector, or in self-employment, who are enrolled in recognised courses of study for adults.

In order to be eligible for such leave, a wage earner must have been employed by the same employer for at least 6 months.

Educational leave may not exceed a total of 36 days; it may be taken on the basis of 12 working days every 2 years, in one such period or in several periods each of which may not be less than 2 days. Educational leave taken in conjunction with the annual leave or with a period of absence on sick leave may not exceed 3 weeks.

The award of a period of educational leave may be postponed if the absence of the person concerned is likely to have unfavourable administrative repercussions or is likely to disrupt the paid annual leave of the staff.

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Persons on educational leave from the public sector shall receive their full pay and allowances; those from the private sector shall be paid a daily indemnity for each day of absence on educational leave which shall be equal to the statutory average daily wage (this compensation will be paid by the employer who will receive reimbursement from the State); self-employed persons shall receive a lump sum in the form of an educational fellowship (bourse culturelle), the amount of which shall be determined on the basis of the indemnity awarded to persons employed in the private sector. Persons on educational leave shall be covered by all legislative provisions relating to social security and employment.

Responsibility for the award of educational leave and education fellowships shall rest with the Minister in charge of youth questions. The Minister shall also be responsible for approving the training programmes.
An apprenticeship agreement shall henceforth amount to a contract of employment. This entails considerable changes in the position of apprentices as compared with the previous system.

1. **Pay.** An apprentice is from now on an employee, and except where a collective agreement fixes a higher rate, his pay is subject to the legal minimum. Provision is made for cases where apprentices receive part of their pay in kind or as board and lodging.

2. **As an employee, the apprentice is entitled to social security benefits.** However, his wage is exempt from deductions, up to the amount of 15% of the minimum wage (salaire minimum de croissance — SMIC) for the first six months and 10% for subsequent six-month periods, which amounts to exemption from all deductions for the first six months if he is paid the minimum.

3. **Public assistance and unemployment insurance.** Where the agreement is terminated, apprentices will in future be eligible for public assistance on the same terms as other wage-earners.

4. **The duration of apprenticeship shall normally be 2 years; this rule cannot, however, come into full operation until the young people concerned will be able to follow the 1-year apprenticeship preparatory class (classe préparatoire à l'apprentissage — CPA).** The full network of CPAs shall be in operation by the beginning of the school year 1976-1977; up to then apprenticeship will last for 3 years. Exemptions regarding the duration of apprenticeship are laid down for particular trades and for cases where the apprentice has been absent through sickness, if the head of the CPA considers his preparation for the examination insufficient.

5. **Attendance at apprentice training centres (centres de formation d'apprentis — CFA — cf. abstract No. 4/L 222, Vol. 12) shall be**
compulsory. For uncommon trades, and where no regional or national CFA can offer admission, apprentices must enter the "miscellaneous trades" section of a CFA which will supplement at regional level the specific training they obtain by correspondence. Correspondence courses must, however, be the exception for trades that require lengthy training. The Regional Committee for Vocational Training, Social Advancement and Employment (Comité régional de la formation professionnelle, de la promotion sociale et de l'emploi) will lay down guidelines for the regional administrations in this connection. Where the apprentice cannot find a suitable course, the employer must allow him time off for his training equivalent to what he would have spent at a CFA.

Apprenticeship agreements entered into by apprentices of foreign nationality will be subject to special arrangements but will also be treated as a contract of employment.

There are transitional arrangements, in particular regarding the duration of apprenticeship and for cases where the agreement is terminated.

The list of institutions authorised for 1972-1973 to offer correspondence courses is annexed to the circular.
The Institute for the Development of Workers' Vocational Training (Istituto per lo sviluppo della formazione professionale dei lavoratori) set up in Rome, is a statutory body enjoying administrative autonomy. In accordance with the directives of the Minister of Labour and Social Security (Ministero del Lavoro e della Previdenza sociale) its functions are:

(1) to prepare the studies, research and data required for the establishment and co-ordination of a national vocational training programme, including a survey of occupations and their changing structures;

(2) to carry out surveys and forecasts concerning vocational training requirements;

(3) to formulate proposals on the technical assistance required for initial training and retraining in the event of reconversions or the establishment of new undertakings, or for artistic or highly specialised activities for which students cannot be recruited in a single region;

(4) to formulate proposals for training in general and updating courses for personnel responsible for workers' vocational training;

(5) to organise these courses, in consultation with the regions concerned;

(6) to provide technical assistance as requested by the regional administrations;

(7) to carry out such other studies and research as may be requested by the Minister of Labour and Social Security.

Organisation

The administrative structure of the Institute is outlined below.

The Board of Directors comprises the President of the Institute (appointed to this function for 4 years by ministerial decree and whose term of office...
can be renewed only once), with the following members appointed by decree of the Minister of Labour and Social Security: 2 representatives of the workers' and employers' organisations respectively, nominated by their most representative national organisation; an expert from the regions, nominated by the inter-regional committee responsible for promoting regional co-operation; a vocational training expert; 2 officials of the Ministry of Labour and Social Security nominated by the Minister; one official of the Ministry of Finance; one representative of the Institute elected by the staff.

The Board of Directors is appointed for 4 years. The members' term of office may be renewed only once. It meets at least 4 times a year, and in addition can be convened within 15 days on the request of two-thirds of the members. It is responsible for studying the organisation and administration of the Institute, amendments of its statutes and all relevant questions of a general nature. It names the director-general of the Institute, on the proposal of the President.

The Executive Committee is composed of the President of the Institute, who acts as chairman, and 4 members of the Board of Directors, elected by secret ballot, by a simple majority in the Board of Directors. The Committee recruits staff on the proposal of the director-general. At the President's request, it examines the questions and proposals for submission to the Board of Directors.

Subject to verification by the Accounts Office, the administration of the Institute is supervised by a group of auditors who have the right to request the President to convene the Board of Directors.

The director-general attends meetings of the Board of Directors and Executive Committee in a consultative capacity. He is responsible for giving effect to their decisions, in accordance with the directives of the President.

The Institute is primarily the responsibility of the Ministry of Labour and Social Security, which must approve decisions of the Board of Directors, but in certain respects it is also responsible to the Minister of Finance.

It is financed by contributions, other income and miscellaneous loans, supplemented by an annual state subsidy.

The decree also lays down the procedure to be followed in the event of serious violation of the law by the President, or in case of default or grave irregularities in administration.
Circular No. 73-175 of 27 March 1973: General recommendations on the over-all plan for the establishment of apprentice training centres

Circular on the organisation and adaptation of CFA centres to meet industrial, commercial and craft undertakings' needs for skilled manpower: determination of over-all and regional demand, establishment of sections, operation and staffing, relation between CFA centres and undertakings.

This circular to regional administrators (préfets) and educational authorities (recteurs) completes the measures laid down in Decree No. 72-280 dated 12 April 1972 [cf. abstract No. 1/L 169, Vol. 11].

Regional Committees for Vocational Training, Social Advancement and Employment (Comités régionaux de la formation professionnelle, de la promotion sociale et de l'emploi) shall be responsible for determining the over-all training needs after consultation with workers' and employers' organisations representing the various sectors of the economy, including the artisan trades. The Committees shall examine any draft agreement concerning the establishment of an apprentice training centre — centre de formation d'apprentis — (CFA), bearing in mind: the actual and anticipated demand for vocational training falling within the scope of the proposed new agreement; its relation to the educational distribution system; any recommendations by the vocational consultative commissions; financial guarantees given by the management authority, mainly with regard to premises, equipment and staffing; proposed arrangements for financing, especially contributions by undertakings, local authorities and public institutions. The Committees shall draw up an over-all plan for the establishment of apprentice training centres taking into account the various surveys on training needs carried out at regional level.

Training requirements shall be determined for comparison with over-all regional distribution of training resources and where necessary apprentices will be regrouped in apprenticeship sections dealing with several "miscellaneous trades" (métiers divers).

Decisions regarding the opening of training sections are of particular importance since the availability and capacity of training sections determine the volume of apprentice intake. Care must be taken, on the basis of comprehensive statistics, not to establish surplus training capacity and at the same time not to hamper the renewal of the skilled labour force in any particular trades. Training must be provided within reasonable
distance of the apprentices' work; the training sections must be sufficiently
specialised for the instruction to be practical and directly useful to the
trainees and their employers; and the centres must be of a suitable size
for efficient management but at the same time large enough for economical
running.

The Act does not lay down any particular pattern of organisation for the
centres, but their establishment must not entail any proportionately larger
burden on the State than was agreed prior to the conclusion of the agreement.
The budget forecast and any subsequent proposals that might not be covered
by a proportionate increase in contributions, must therefore be carefully
examined. The Regional Committee is required also to give attention to
the terms on which employers' and workers' organisations may participate,
whether or not any exemption from apprenticeship levies or subsidies from
semi-public funds are involved.

Each centre must have a minimum of two classes. Two-thirds of the teach-
ing time must be devoted to theory (technical and general) and not more than
one-third to practical and technical work. One-tenth of the yearly time-
table must be devoted to physical education.

The head of a CFA may not have an occupation outside the management of the
centre so as to ensure the independent character of the centre as a teaching
and administrative unit.

Admissions. The employer must register the apprentice in a centre which
may be selected in agreement with the apprentice's family. Admission
cannot be refused so long as there is at the centre a section catering for the
trade chosen or for "miscellaneous trades".

Relations between CFA centres and undertakings. There should be recipro-
cal co-ordination and exchange of information to permit the development of a
scheme for progressive practical work, to take up only a proportion of the
apprentices' working time. At the present stage, it would be useful to in-
vite advice from the local employers' and workers' organisations, and each
centre might consider holding a series of "open meetings" which would be
attended not only by the families concerned, but by employers and the people
in charge of practical training, to discuss with them the problems involved
in training youngsters.

The centres might also offer help with the apprentice preparatory classes
[classes préparatoires à l'apprentissage - CPA: cf. abstract No.
4/L 231, Vol. 12] attached to public educational institutions which are not in
a position to provide technical instruction for their pupils. They may, in
addition, undertake permanent training programmes, more especially for
young people whom they have already prepared to take advantage of further
vocational training opportunities.
Rational distribution of theoretical and practical instruction in vocational training

Article on the respective advantages and disadvantages of three methods of distributing the time given to theoretical and practical instruction.

There are three different systems of alternating theoretical and practical instruction in vocational training courses in the Democratic Republic of Germany. Their respective advantages and disadvantages are outlined below.

1. **Alternating within a week (Tagesturnus):** theoretical instruction (Th) and practical training (P) are alternated according to one of the 3 formulae outlined below.
   a. During the first 3 semesters: 3 days Th/2 days P.
      During the 4th semester: 5P.
      **Advantages:** close relationship between theoretical and practical instruction; during the 4th semester, the pupils have the possibility of progressively adapting to working conditions.
      **Disadvantage:** absence of theoretical instruction during the final semester.
   b. Uniform alternating periods throughout the 4 semesters: 2Th/3P.
      **Advantage:** permanent co-ordination between the theory and practical training.
      **Disadvantage:** there is no possibility for pupils to carry out production work over a prolonged period.
   c. A combination of a. and b.
      First and third semesters: 3Th/2P.
      Second semester: 2Th/3P.
      Fourth semester: 5P.
      In general this combination of a. and b. is preferable.
2. **Alternating weekly periods** (Wochenturnus) of theoretical and practical instruction.

   a. Throughout the 2-year training period, alternating periods of 2 weeks/Th and 3 weeks/P.

   b. During the 1st year: 3Th/1P.

      During the 2nd year: 1Th/1P.

      This system requires the classes to be organised on a basis of multiples of 4 or of 2 for each trade.

      **Advantages:** enables rational use to be made of machines, installations and boarding facilities in hostels.

3. **Alternation arranged on a yearly basis.** Each year contains a certain number of "units" (Block) made up of a period of theoretical instruction and a period of practical training, each period being of a fairly long duration (for example 7 weeks).

   **Conclusions.** Results have led to the following conclusions concerning the 3 systems:

   - the first system ensures the closest possible co-ordination between theoretical and practical instruction; it should be used whenever a vocational training institution, a workshop and an undertaking are in close proximity;

   - the second system should be used in the case of continuous production, shift work, assembly work outside the undertaking (building), and for seasonal agricultural work;

   - the third system should be used only when the small number of pupils undergoing training requires that they should be grouped either geographically or by economic sector.
| Translation | Over-all plan for education |
| Subject analysis | Publication setting out an over-all plan for education prepared by a commission appointed to study the effects of the reform of the educational system: objectives, steps needed to attain them, budget forecasts (Vol. I): statistics, model for calculating costs (Vol. II). |
| Contents analysis | This over-all plan for education was prepared by the joint Federal-State Committee for Educational Planning (Bund-Länder Kommission für Bildungsplanung) set up in June 1970. It was published on 15 June 1973 and submitted to the heads of the Federal and State Governments to guide their decisions. The plan sets out the objectives to be attained between now and 1985 together with budget estimates of the cost. This abstract deals only with the part covering senior secondary education and further training. |

The report endorses the principle of integrated streams in senior secondary education contained in the proposed revision of the education system [cf. abstract No. 1/B 39855, Vol. 10]. Senior secondary schooling includes the following educational streams:

1. preparing for an occupation (berufszweckorientierter Bildungsgang):
   - (a) in school on a full-time basis (2-year course) or
   - (b) under the "dual" school/industry system (2-3 years);
2. preparing for higher studies (studienbezogener Bildungsgang) (2-3 years);
3. preparing simultaneously for an occupation and for admission to university (2-3 years);
4. preparing for entry into the world of work without school leaving certificate (berufsbefähigender Bildungsgang), lasting at least one year full time.

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Projected breakdown in the 4 streams (percentages)

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- Streams should be co-ordinated so that pupils can choose their main subjects (Schwerpunkt) in accordance with their interests and capacities;
- vocational and general streams should be of equal status; and comparable content in vocational and general streams should have the same value;
- new regulations governing certificates and the qualifications they confer are needed; certificates should specify the "profile" of the stream followed.

Further training

To ensure the development of further training the following measures should be taken in the immediate future: co-ordination bodies should be set up to provide liaison between local and regional authorities and the co-ordination agencies at State level; criteria for control of tele-education schemes should be standardised at Federal level; a central body should be responsible for encouraging curriculum research and development in fields not covered by the Federal Vocational Training Research Institute (Bundesinstitut für Berufsbildungsforschung); a Commission should be appointed with representatives of the Federal, State and municipal authorities to support educational institutions. The Commission should co-ordinate public financing for further training establishments and work out standard criteria for public subsidies.

Syllabi

These should be designed to permit the use of study modules (Baukastensystem); equivalence of units in part-time and full-time courses should be obtained by setting minimum standards and developing a system of recognition.

Study leave. There should be an Act to provide for the progressive introduction of a system of study leave.
LAVERGNE, J.
Les Fonds d'assurance-formation

Training insurance funds

Article offering an initial assessment of the application of the law on training insurance funds: characteristics contributing to the success of these institutions; analysis of the regulations; prospects.

Among the various organs created by the law of 16 July 1971 [cf. abstract No. 1/L 126, Vol 10] or the regulations governing its application, the training insurance funds (Fonds d'assurance-formation - FAF) [cf. abstract No. 2/L 146, Vol. 11] represent a significant innovation destined to play an important role in the development of lifelong training. The legal provisions, in particular, give the management committees complete freedom of action.

The FAF have the following merits: they simplify the administration of training, provide a centre for thinking out and applying realistic solutions to problems, can receive public funds, enable trade unions to participate in decision-making in the training field.

Since the decree came into force, 83 FAF have been created (44 for wage-earners and 39 for non-wage-earners) covering all sectors of the economy. An initial assessment brings out the following facts:

- at the national level, each of the principal funds covers an occupational sector, thus making it possible to organise lifelong occupational training on a systematic basis;
- certain inter-occupational FAF exist, which bring together small and medium-sized enterprises having similar problems;
- as a general rule, the main trade union organisations participate in the management of the FAF;
- the allocations to the FAF for the year 1972 totalled 110 million francs (approximately US$20 million), and their activities affected 2 million wage-earners;
- the FAF for non-wage-earners cover one-third of the artisan trades;
- agricultural enterprises have been brought into a national fund;

(cont'd)
the management committees propose, in general, to allocate part of the sums received: (a) to reimbursing the expenses of training activities initiated by employers or workers, mainly in the context of the clauses of the inter-occupational agreement of 9 July 1970 or initial training and further training [cf. abstract No. 1/B 40018, Vol. 9] dealing with the remuneration of workers undergoing training (articles 35 and 36); and (b) to financing courses of interest to the occupational group.

[List of FAF showing: occupational sector, nature and duration of the convention; amount of contributions; management bodies.]
KOŚCIELNY, K.
Koncepcja średniego studia zawodowego
p. 402-406.

Scheme for general secondary education and further training centres

Article on general secondary education and further training centres to be
established for adult workers: terms of admission, duration of courses,
syllabus, level of qualifications.

The Ministry of Education is planning to set up general secondary educa-
tion and further training centres for adult workers wishing to complete
their senior secondary education. These centres will be on similar
lines to those set up at basic common school level [cf. abstract No.
2/B 52938, Vol. 12].

The centres will be set up within undertakings. The local education
authority will decide on their establishment (or closing down) after con-
sideration of the undertakings' proposals, as agreed by their workers' councils and workers' self-management committees. The education
authority will appoint the head teachers and teaching staff. The undertakings will be responsible for admissions. To qualify for admission
adults must be over the age of 21, have at least three years' work
experience and have attained a standard of education equivalent to full
common basic school.

Programme

The programme will comprise a total of 2,160 hours instruction spread
over 3 years. Classes will take place 5 times a week for 4 hours a day.
The general education and trade theory taught in these centres will give
adult workers the necessary basis for continuing their education in
higher education establishments, will enable them to carry on with
studying on their own, and will teach them how to make proper use of
the various facilities and sources of scientific and technical information.
The subjects will include: Polish, Russian, social and economic prob-
lems in Poland, mathematics, physics, chemistry and vocational sub-
jects. The latter will emphasise theoretical instruction and the subjects
will be selected according to the trainees' trades.

Certificates

The 3-year course in the centres will lead to a certificate equivalent to
the vocational secondary school leaving certificate. Holders will be

(cont'd)
eligible to sit the senior secondary school leaving examination (Matura).

Workers will have the opportunity to obtain various qualifications during the course itself. At the end of the first year, they will be able to take the official examination for skilled worker status, and the examination for foreman status at the end of the 2nd year.

The first of these general secondary education and further training centres were to be started in September 1973 on an experimental basis in several large electrical engineering and electronics undertakings.
A study has been carried out by the National Children’s Bureau "to investigate the range, availability and suitability of the facilities for the further education, training and employment of handicapped school-leavers, in relation to their estimated capacity benefit from what is available to them". The study was sponsored jointly by the Department of Health and Social Security, the Department of Education and Science and the Department of Employment.

The inquiry was carried out between 1968 and 1971 and covered 1,700 handicapped school-leavers from all types of special schools. A detailed questionnaire was used to obtain information on: the nature and severity of handicap, the intelligence, attainments and attitudes of the child and the suitability of the child for further education, training and employment. Follow-up interviews with the children were carried out after two years in employment.

The findings highlighted the major needs of an efficient service for handicapped school-leavers: (1) identification of ultimate responsibility for the provision of education, training and welfare; (2) co-ordination and cooperation between all the departments and people involved; (3) flexibility. At present, divided responsibility makes it only too easy for communication to break down. Any reorganisation of current services should take into consideration the following points.

1. There must be a clear definition of responsibilities between the various agencies concerned. Accepting that handicapped children should have a longer more intensive programme of further education and training, they should still be the statutory responsibility of education departments for two years after leaving school. The responsibility should be vested in the further education department by each authority in the person of an officer specially designated for this task. On leaving the special school, each child should also have an identified social worker whose function it should be to work closely with the further education officer in ensuring (cont’d)
that the total welfare and emotional needs of the young person and his family are met. This is the responsibility of the social services department.

2. Once nominated, the two people representing the further education and social services departments should be able to ensure: (1) closer co-ordination and co-operation between other interested parties (special careers officer, medical officer, family doctor, etc.); (2) a flexible interpretation of the many rules and regulations which seem to cause so much delay, confusion and frustration.

3. More schools should develop work experience courses, in co-operation with industry, for handicapped children over the age of 16.

4. The amount of specialised training facilities for each handicapped group needs to be carefully considered in the light of its advantages and disadvantages. It may be better to allocate the money and time to supporting established ordinary training facilities.

5. There is a need to review, at national level, the uneven distribution of training facilities for the different types of handicap.

6. There should be enough provision, both specialised and in ordinary establishments, to enable every handicapped school-leaver to obtain the assessment, further education and training he needs.

7. Higher education should be accessible to those handicapped children who are able to profit from it.

8. There is a need for increased literacy classes.

9. The problems of transport and the design of buildings need to be far more seriously considered in relation to the handicapped.

10. The programmes of many training centres for the handicapped need to be upgraded with the aim of providing a more stimulating environment.

11. A higher rate of pay should be provided for those in sheltered employment. A system whereby those who wish to work may be worse off than if they stayed at home should be reviewed.

12. The willingness of employers to accept handicapped young people needs to be more positively promoted than at present.

13. Trade unions should look more carefully at the rights of handicapped young persons in employment, especially when they are threatened with redundancy basically on account of their handicap.
Against the background of an apprenticeship crisis in Genève, an inquiry was carried out with the support of the Office of Occupational Guidance and Training (Office d’orientation et de formation professionnelle). The aim was to establish whether the rewards obtained in working life by ex-apprentices were in fact so negative as to justify the abandoning of apprenticeship in favour of higher education by individuals who often are not able or not sufficiently prepared to benefit from it. The criticisms of the apprenticeship system heard most often are:

- the big difference in status between the college student and the apprentice (hours, holidays, sports) is strongly resented, as is the unequal allocation of public funds to the two groups;
- the abrupt entry into the adult world prevents the young apprentice from living his youth;
- the apprenticeship system is too rigid, allowing insufficient scope for diversification of skills;
- the apprentice’s output often takes precedence over his training;
- the teaching qualifications of the instructors often leave much to be desired;
- practical training is believed to be inadequate, and the duration of the apprenticeship too long; the related instruction is too theoretical for many "school-resistant" apprentices.

Method

The inquiry, conducted from 1969 to 1971, covered groups of apprentices trained between 1956 and 1958. It was designed to cover all apprentices so as to ascertain the opinions of former workers in occupations that were little known, of the handicraft type or in process of disappearing. The actual sample comprised all former male apprentices (cont’d)
still living in the Canton. A preliminary inquiry was used to formulate a final questionnaire for computer analysis. The questionnaire was followed up by systematic telephone calls to all the persons concerned, and was issued to the press and radio. Two-thirds of the sample replied.

General trends. The conception of apprenticeship has itself progressed. The law of 1940, amended in 1963, laid down that "the aim of apprenticeship is to give the apprentice the skills and knowledge required to practise his calling, as well as to complete his education". Clearly, vocational training must go beyond the mere imparting of occupational skills.

Results

Practical training: nearly 75% of the ex-apprentices judged the practical training received to be good or very good, notwithstanding the fact that not all the employers were qualified to give this training. The apprenticeship inspectorate of the Office of Occupational Guidance and Training should no longer allow such employers to train apprentices.

Theoretical training: the 3.5% of the ex-apprentices who thought this too advanced constitute a negligible minority which could be explained by the school-resistant attitudes of some." By contrast, 31.9% considered it inadequate.

Duration: 20.4% considered the apprenticeship period was too long. Either they should have learnt more in the time allotted, or they could have learnt the same in much less time if production work had not been given precedence over training.

Educational level: a differentiated system of theoretical instruction needs to be developed, so that all the apprentices receive the theoretical training they need and have a right to expect, regardless of their educational level. There is a general tendency to introduce a system of a higher vocational school providing 16 hours of theoretical instruction instead of 8. But should this start from the 1st year of training, or later, and should it be open to all? Results suggest that it would be advisable to provide a common first stage and to create differentiated courses for the less educated (cramming courses, etc.), so that all would be able to attend the 2nd year of the higher vocational school, if they wished. Apprenticeship should provide maximum opportunity to succeed, without becoming devalued in the eyes of the better educated.

Occupations: young persons choosing an occupation should be fully informed about the realities of the occupation in question. The apprenticeship regulations for occupations which are changing rapidly should be framed in a sufficiently flexible manner to allow for automatic adjustment every 5 years.

In conclusion, although the former apprentices appeared to be fairly satisfied with their training taken as a whole, the inquiry revealed the urgency and importance of reforms which should take into account a number of occupational, individual and cultural factors.
The new vocational training system

Development plan for vocational training: objectives; conditions of admission; programmes and planning of studies; implementation; finance; estimates.

The Third Development Plan provided for the creation of 125,000 new places in vocational training, the concept and content of which was radically transformed by the educational law of 4 August 1970 [cf. abstract No. 1/B 35260, Vol. 9]. Vocational training now comprises 3 levels and is intended to teach the student or trainee, once he has finished his general education, the knowledge and skills needed to practise the occupation of his choice. Between now and 1980, an estimated 95% of all 14-year olds will be in school. In the same year some 579,000 young people in the 14-to-21 years age group (total: 3,203,716) will be going to vocational schools: 191,000 studying at the first level, 253,000 at the second level and 25,000 at the third.

The students will not be taught a specific trade but a group of trades constituting, so to speak, an occupational group or "family". The occupational groups ("families") envisaged for the first level are 32 in number: clerical and administrative occupations, agriculture, printing, audio-visuals (films, radio, etc.), automation, automobiles (mechanics, electricity, coachwork), domestic service, industrial ceramics, commerce, building and public works, metal industries, dressmaking, draughtsmanship, electronics, refrigeration and air-conditioning, hotel trades, horticulture, jewellery and kindred trades, woodwork, general mechanics, mining, navigation (fishing), optics, paper industry, hairdressing, leather, chemicals, health and welfare, textiles, glass, viticulture and wine technology.

Certain groups embrace several occupations, for example:

Clerical and administrative — administrative assistant, typist, office machine operator, public relations.

Building and public works — skilled mason, stone and marble dresser, painter-decorator, plumbing installation, heating, etc.

(cont'd)
Hotel trades — hotel management, cookery, property management, services.

Syllabi and organisation of the training

The first of the three levels comprises three phases:

- Phase A, common to occupational groups in one or more sectors (transition from school to working life);
- Phase B, common to one occupational group;
- Phase C, preparation for a given occupation, with acquisition of the specific qualifications required for that occupation; these can be learnt at a school on the job, within the industry or by taking specialised courses.

The subjects taught in each phase fall into two categories: (1) subjects related to technical training — applied sciences, technology and its application, drawing; (2) the humanities and social sciences — physical education and sports; civic, social and political training; religious instruction; foreign languages, etc.

The instruction will be continually revised to take account of technological and socio-economic development. The 1st level training, put into effect in 1972-73, is to be followed by a period of consolidation in 1973-74 which will coincide with the introduction of the 2nd level. The school year 1975-76 will see the introduction of the 3rd level.

On completing the 2nd level, students will obtain a general qualification (of the occupational group); the 3rd level student will specialise in one of the trades in the occupational group he has chosen.

Financing

A sum of 5,550.7 million pesetas (about US$ 100 million) out of the total of 84,091.5 million pesetas voted for education is to be earmarked for vocational training: 2,100.7 million provided from the State budget, 650 million by independent organisations, 1,300 million by the social security service, 500 million by local corporations and 1,000 million from outside sources.
In referring to this abstract please quote No. L 228

| Author: | Zarządzenie Ministra Oświaty i Wychowania z dnia 14.6.1973 w sprawie organizacji i działalności poradni wychowawczo-zawodowych |
| Title: | Dziennik urzędowy Ministerstwa Oświaty i Wychowania, Warszawa, No. 11, July 1973, p. 105-106. |
| Bibliographical references: | Order of the Minister of Education, dated 14.6.1973, concerning the organisation and activities of the vocational and educational guidance services |

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**Translation**

Ministerial Order modifying the work and personnel structure of the vocational and educational guidance services.

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**Subject analysis**

Ministerial Order modifying the work and personnel structure of the vocational and educational guidance services.

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**Contents analysis**

The duties of the vocational and educational guidance services (poradnia wychowawczo-zawodowa) set up by Ministerial Order in 1968 [cf. abstract No. 5/L 69, Vol. 8] are amended to include further responsibilities.

In addition to their previous duties, the regional and district services shall:

- assist common basic school teachers in drawing up counselling programmes to make vocational guidance an integral feature of the educational background;
- make direct contact with pupils and their parents where pupils plan to follow courses which do not correspond to their capacities and aptitudes;
- arrange for pupils in the common basic schools to have contacts with industrial undertakings;
- report on the work carried out by the various services and submit proposals regarding future activities to the school authorities.

The regional service shall, in addition, make arrangements at district level for the further training of vocational and educational guidance personnel.

The staffing of the service shall in future comprise:

- District service: at least 5 education officers, of whom 2 shall be qualified in psychology.
- Regional services: at least 9 education officers, of whom 7 shall be qualified in psychology.

The qualification in psychology must include not less than 2 years experience in vocational counselling with adolescents.
In referring to this abstract please quote
No. B 57933

Trainee
Young

Sector -

ISCO -

CIRF 5

Country Czechoslovakia

Author:
BALÁŽ, O.

Title:
K niektórým otázkam polytechnického vzdelania

Bibliographical references:

Translation

Subject analysis

Some problems of polytechnical education

Contents analysis

At a time when scientific and technical progress is unprecedented, to
have a good education implies understanding the basics of science and the
principles of new inventions; being able to acquire, select and apply
scientific and technical knowledge and to perceive fundamental problems.
The foundation is to have a good general education, including polytechni-
cal education which imparts elementary concepts of the natural sciences
(among them physics and chemistry), of mathematics and of the social
and economic sciences.

Polytechnical education may be approached in different ways. Some
teachers view it as part of the natural sciences and mathematics; others
maintain it requires the teaching of specific subjects such as "technical
foundations", "polytechnical education", etc. In point of fact, polytech-
nical education should permeate all secondary education, as it does in the
USSR. Only the co-ordination and inter-relation of polytechnical
principles in all the subjects taught and in all the practical work done
both in and out of school will give pupils an effective polytechnical
grounding.

During the next phase of the social and technical revolution, the polytech-
canical principle must be emphasised throughout the educational system.
Polytechnical education must embrace the polytechnic, ideological, tech-
nical and economic bases of production and the service occupations.
Practical work and leisure activities outside school hours are also part
of polytechnical training. The polytechnical principle assumes that the
school is in permanent contact with social reality and postulates close
links between the education system and vocational guidance.

In general, the common basic schools' curricula embody the principles of
polytechnical education. Some problems, however, still need to be re-
solved, in the light of the following facts:
(1) The main production and service sectors make increasing use of electricity, involve new chemical processes and employ new materials;

(2) mechanisation, automation, specialisation, inter-firm co-operation and standardisation are gathering momentum in manufacturing industry;

(3) changes in both the production and the service sectors require the workers to have not only high level general and specialised qualifications but also great adaptability.

Certain imbalances may be observed in the actual number of hours devoted to polytechnical education. For boys, 264 hours are given to it over 4 years, half of them spent in workshops and half on the land. In the workshops, 63 hours are allotted to metalwork and woodwork, but only 17 to electro-technical work and nothing at all for assembly or construction.

Various modifications have been introduced in polytechnical education in the senior secondary schools, where a tendency towards reform has been noticeable for some time, particularly since 1970 [cf. abstracts Nos. 1/B 42493 and 1/B 42372, Vol. 10]. It would be advisable to:

- adopt a polytechnical approach in all subjects (particularly the natural sciences and mathematics) and relate basic concepts to their technical and economic application;

- introduce appropriate new technical subjects into the timetable, geared above all to scientific and technical problems and to activities bearing on technological developments;

- tighten the inter-relationships between all subjects taught, in accordance with polytechnical principles, and reinforce the polytechnical component in the pupils' cultural activities outside school.
Educational and vocational guidance relate to one and the same problem, namely the choice of education and occupation, which must be faced and decided during school years. The guidance function is one of the most important aspects of the education system as a whole. Many career setbacks are attributable to lack of, or erroneous guidance.

Guidance objectives: to create the requisite conditions in which the individual can make the correct choice at the appropriate time. In particular, guidance should:

(a) identify the attributes and interests of the individual, so that in adult life he can play a constructive role in society;
(b) oblige him to accept his share of responsibility for decisions taken; make him aware of his responsibilities bearing in mind his personal possibilities;
(c) help him to adapt to society on a realistic basis; inform him of employment opportunities in the various sectors;
(d) counteract negative influences in the socio-cultural environment, so that he may choose according to his abilities and not, as a result of his family background, at either too high or too low a level.

Central features of guidance

Guidance must be for the service of the individual. It must be free. It must be permanent and on a continuing basis. It must study all sides of the pupil's personality, not merely one aspect or one stage of development. It must have an inter-disciplinary and many-sided approach, to match the complexity of the human character.

Influencing factors

Vocational and educational guidance centres exercise the greatest influence: by familiarising persons responsible for education (parents, (cont'd)
teachers, priests) with the problems of guidance; by informing parents, pupils and teachers about possible choices, taking into account the pupil's interests and aptitudes and the state of the employment market; by conducting research — medical, psychological, sociological, and pedagogical — to provide the bases for objective decisions; by endeavouring to prevent or redress faulty educational guidance; by co-ordinating the interests of all concerned with guidance problems.

Schools. At present, little vocational guidance is given in school, although this is an obligatory requirement in the law establishing the new middle schools. The school should play a vital role, being in constant contact with pupils and parents. It can bring to light the problems which eventually must be handled methodically by the vocational guidance centre.

The family contributes little to the guidance function. If it senses the problems, it does so in its own way and rarely correctly. Yet it is the family which in the first place must, intuitively, give sensible advice. The family is in the best position of all to give guidance, since it best understands the child's interests and aptitudes.

The religious community influences guidance in so far as religious attitudes affect choice and counterbalance material motivations.

Techniques

The guidance system is based on the following techniques: psycho-diagnostic techniques — intelligence, aptitude, personality and vocational interest tests are widely applied at the present time, all having a purely indicative and provisional value; sociological surveys, to reveal the socio-cultural factors, at family, school and community level, since the social environment has a powerful influence on selection criteria; educational assessment techniques, consisting of the diff...
The developmental theory of occupational choice was introduced during the 1950s by the American psychologists Eli Ginzberg and Donald Super. The theory states that the role of guidance should be to assist the individual through a "natural" process of vocational development by, for example, providing occupational information. Rather than telling the client to which job he would be suited, the vocational guidance counsellor can leave the individual's destiny in his own hands and play a basically supportive role. The theory also suggests that vocational guidance should work by helping the individual to develop and eventually implement a self-concept. This developmental process can be aided by counselling and discussion assisting the individual to appraise his experience at school, in employment, and in the community. At the climax of the process there is the promise of success, and the actualisation of the individual's self-concept. The theory therefore supports a system of values which insists that the destiny of an individual should depend on his own efforts.

However, in the real world the process is far different. To begin with, individuals often do not choose their occupations in any meaningful sense but have to take what work is available. Surveys in the United Kingdom have shown that rarely more than 50% of all school-leavers enter the occupation which they choose. American investigations have revealed an even higher incidence of thwarted ambition. Furthermore, the typical industrial worker's career can hardly be described as a process of self-actualisation. It is more common to find individuals having to tolerate a permanent gap between their self-concepts and the requirements of their occupations.

The developmental theory resembles reality only in respect of a privileged few. Any adequate theory for the masses will clearly need to pay critical attention to the constraints imposed upon most participants in the labour force: constraints that are effective whatever the aspirations of the individuals concerned.
A more realistic approach would be to regard careers as developing patterns dictated by the opportunity structures to which individuals are exposed in education and employment.

As regards vocational guidance, the implications of this alternative approach are twofold. Firstly, because careers develop along lines principally set by opportunity structures, vocational guidance can only be realistically re-oriented towards adjusting individuals to those opportunities to which they have access. Rather than encouraging individuals to develop aspirations principally upon the basis of conceptions of their own abilities and interests, the guidance process must take the realities of the world of work as its point of departure. Secondly, rather than being concerned with the process of general job information and encouraging individuals to crystallise occupational self-concepts, guidance needs to concentrate upon helping individuals to solve immediate problems. It is satisfying to talk about promoting personal growth and self-actualisation, but in reality no harmony is guaranteed between individuals' aptitudes and occupational requirements.

In advanced industrial societies the genuine problem is not how to ensure that individuals enter fulfilling jobs, but how to reconcile them to job opportunities that offer little scope for personal development. This reality may be unpalatable but failing to base the practice of vocational guidance upon a valid model of the processes involved in entry into employment will not change society.
A method has been developed to predict the learning time required for manual operators. It is based on the "cue-motion" (C-M) association theory. A cue is information presented to a person and requiring a predetermined response.

The theory is not concerned with learning prior to memorising (threshold) but with learning after memorising the operation (conditioned). It stipulates that manual training must be performed in elements which can be memorised (elemental training method).

The job content is stated in three measurable dimensions: complexity (No. of C-M associations); redundancy (repetition of C-Ms); organisation or continuity of elements (No. of situations where the next set of motions varies according to the result of preceding motions (natural break points)). Ideally, the job should be separated into training elements containing less than 12.5 C-Ms using natural break points. The "cue-motion" theory uses two formulae: C-Ms totalling less than 12.5 and C-Ms for totals greater than 12.5.

Total C-Ms less than 12.5

\[ LT = 4.8(C-M) \]

where \( LT \) = number of cycles (learning time)

(C-M) = total cue-motions

Total C-Ms greater than 12.5

\[ LT = 60 + 63 [(C-M) - 12.5] \]

Applying these formulae total training time for a job consisting of 64 C-Ms separable into 4 elements of 10, 14.5, 28 and 11.5 C-Ms respectively would be: in elemental training (Example A) 48 + 186 + 1,037 + 56 = 1,327 cycles and in whole job training (Example B) 60 + 63(64.0 - 12.5) = 3,304.5 cycles to reach standard performance.

(cont'd)
Additional formulae determine the learning "time". These are derived from empirical studies which indicate that the learning curve is represented by the model \( y = kx^{-a} \), where: \( y \) = time taken to complete the \( x \)th cycle of conditioned learning; \( k \) = constant; \( x \) = cycle number and \( a \) = learning parameter.

(Experience has shown that \( 1 > a > 0 \).)

An assumption is also made about the learning time at the crossover point between threshold and conditioned learning. Thus:

\[
\text{Total Conditioned LT} = \frac{\text{Basic time} \times \text{No. of cycles to reach standard rating}}{1 - a}
\]

(standard rating)

where "\( a \)" is constant and \( a = \frac{\log(\text{crossover rating})}{\log(\text{No. cycles to standard rating})} \).

The following result is achieved in Example A, where estimated crossover is 40 and basic time 1.30 mn. To find "\( a \)"

\[
\frac{\log(40)}{\log(3305)} = \frac{\log 2}{\log 3305} = \frac{0.3010}{3.51916} = 0.086
\]

Substituting "\( a \)"

\[
\frac{1.3 \times 3.305}{1 - a} = \frac{1.3 \times 3.305}{0.914} = 4.701 \text{ minutes (to reach standard rating)}
\]

By the "cumulative elemental method" it would take a total of 1,316 minutes.

The theory was applied to determine the learning time for operators to reach standard rating in bacon cutting operations. Comparisons were made between the "whole-job" and the "elemental" method of learning. Results showed that the elemental learning method is quicker; that the application of the theory to predict the number of cycles to reach standard rating would appear to be valid for an operator with given levels of intelligence and manual dexterity; that it appears practical to use a mathematical formula to determine allocated learning time. Further statistical validation is needed.
Application of the discovery method to technical training

Article describing a method of teaching technical subjects based on research methods and aimed at stimulating creative thought: the various stages; application to training skilled workers in the construction industry.

An important factor in raising productivity is the skilled worker's capacity to understand the sequence of production and to take part in solving the problems involved. Vocational training should stimulate the faculty for creatively applying the skills and knowledge acquired to new assignments, both practical and theoretical.

The teaching method suggested is based on the similarity between research and learning processes; its aim is to develop in the skilled worker the attitudes and responses of a research worker.

Research work usually proceeds on the following general lines: (1) collection of information on the subject to be researched; (2) establishment of a hypothesis to explain the facts observed; (3) experimental testing of the hypothesis. These principal stages are reproduced in the application of research methods to teaching.

Implementation of the method

Step 1: establishment of known scientific results:

(a) introductory stage: outline of the methodological sequence and basic working methods (observation, description, comparison, etc.);

(b) 1st development stage: the teaching staff select a research topic that has been carried out in the training establishment's research and development section: the research report is studied to identify the method of discovery followed and then compared with the stages of the method of instruction;

(c) 2nd development stage: the trainees are given research exercises, arranged in increasing order of difficulty; teachers, who know the results, are able to guide the trainees' efforts;
Step 2: establishment of entirely new results:

(d) 3rd development stage: the trainees actively participate in the work of the research and development section: tasks are selected jointly by the teachers and a representative of the R and D section, bearing in mind the programme of instruction;

(e) final stage: a complex research task is set for the class to solve on its own responsibility. The trainees are given guidance in the form of an outline of the logical steps to follow.

[Description of an application of the method to the training of prestressed concrete technicians; outline of training stages.]
Systematic work organisation depends on specific specialised further training

To achieve good results, initial training and further training within the undertaking must be organised within the framework of systematic work organisation. Further training should be specific and concentrate on the efficient execution of tasks [cf. abstract No. 7/B 55415, Vol. 12]. It has 3 complementary stages: (1) introduction to the production process; (2) operational training (operative Qualifizierung), which should consolidate the knowledge and know-how acquired during introductory training on the job and their permanent updating; (3) enlargement of the workers' political, economic, technical and cultural horizon.

It is essential to define the precise responsibilities of the different persons concerned with training. In defining the content of training, both the over-all development of the worker and changes in the occupational classification must be taken into account.

In the chemical industry, research on occupational classifications has revealed an increase in work preparation, supervisory, decision-making and maintenance functions. The greater sophistication of equipment has increasingly transferred the functions of control and regulation to the appliance. The absolute and relative number of machine operators has diminished while the number of auxiliary workers, particularly maintenance workers, has increased.

Defining the content of training within the framework of systematic work organisation entails establishing standards of knowledge and skill for production workers in the following fields:

- basic chemistry, physics, mathematics and technology;
- stages, conditions and principles of the production process;
- nature and functioning of equipment or production installations and of raw material;

(cont'd)
operation, supervision and maintenance of equipment or installations, including instructions for action in dangerous situations, particularly those likely to cause material damage;

- occupational health and safety, accident prevention;

- processes preceding and following individual work operations and the economics of the undertaking.

As a priority, the following weaknesses should be remedied.

- Theoretical instruction given in introductory training on the job and in initial training courses for skilled workers is often irrelevant; practical training does not include sufficient theoretical instruction;

- insufficient time is devoted to the introductory training on the job;

- during practical training in the undertaking, the acquisition of the ability to control, regulate and supervise the production process is left too much to chance;

- too little importance is attached to the knowledge and skills required to deal with difficulties which can arise: interruption of the production process, need to take decisions in the foreman's absence, etc.
Research carried out in the chemical industry has revealed that accepted methods of initial training and retraining for chemical processors and related workers are no longer adequate. The following main weaknesses were observed:

- sufficient advantage has not been taken of higher general education standards to carry out specialised training which is related to the performance of specific tasks;

- basic training includes instruction in skills and knowledge which are superfluous;

- the importance of giving introductory training to a specific work-post as an integral part of training is underestimated;

- specialised training (for example to minimise damage to equipment) concentrates too much on situations causing disruption or damage and not enough on prevention; practical manual exercises in conditions approximating to reality have been neglected;

- insufficient account has been taken of the increased role of work organisation, preparation, regulation and supervision.

Three main types of operating error were noted:

(1) too rigid concentration on certain signals at the expense of other information;

(2) where signals are modified, either the message is not received or it is incorrectly interpreted;

(3) signals are received, generally interpreted correctly but the methods required to maintain the production flow are not taken.

If workers are to receive training which fully prepares them for their work as chemical processors, it is not enough to modify the content of
training; they must receive specific instruction to develop the mental qualities required to judge the operational flow and to take the measures necessary to keep within prescribed tolerances.

[Cf. also abstracts No. 7/B 55468, Vol. 12.]
Rationalising clerical courses and experimentation


Translation

Subject analysis

Contents analysis

A working party was set up by BACIE's Business Education and Training Committee to study current training practices in clerical and business occupations. The objective was to ascertain whether current provision of courses and examinations for those working in offices adequately met the needs of industry and public authorities, and to investigate how the present structure could be simplified and rationalised.

Generally, in recruiting clerical employees, an organisation looks at the level of education and the standard of thinking rather than for specialist training. While recognising the important contribution on-the-job training should make to competence in the office, there is a need for coordination with off-the-job training. However, in training their employees for specific occupations, industry, commerce and public administration often require more intensive courses than those available. Such short intensive courses would prove more economic and immediately applicable for employers and more highly motivating for trainees.

Another suggestion is the possibility of running business studies on a block-release basis consisting, for example, of two four-week blocks separated by about 2 months which the trainee would spend working in the company.

More flexible timing of examinations could be arranged to facilitate block-release taking place throughout the calendar year. The short courses could be followed by more advanced courses on a modular basis.

The following routes lead to educational qualifications in business or commerce: (a) general secondary education, (b) general vocational education, (c) specialised vocational education. The student should be able to follow courses of types (a) and (b) above, up to the age of 18, and become involved in type (c) only after the age of 18. It is difficult to assess the relative merits of the different routes to professional qualifications, since much depends on the inclinations of the trainee. However, on the whole more students should be allowed and encouraged to

(cont'd)
avoid the narrower and more committing specialist courses and more in-
formation should be available to employers and students on the various
course alternatives available.

There is a vast variety of examining bodies awarding qualifications in this
field. The result of this diversity is that there are no clear reference
points by which the relative value and level of different qualifications can be
assessed by employers about their employees. Parents and pupils are
similarly unable to assess the relevance of courses leading to the various
qualifications.

Furthermore, the result of raising entry standards to a senior secondary
school leaving certificate in many professional bodies is likely to raise a
whole range of second-tier qualifications based on lower entry standards.
Some means of establishing the comparability of courses is essential.

Examination procedures should be reviewed. Essay-type examinations
should be discarded in favour of tests which are more objective. These
should include assessments of course work, tutor's reports, speaking and
listening comprehension skills, etc. The absolute concept of "pass or fail"
is too rigid. Examination methods and practices should be reviewed by the
Business Education Council (BEC) [cf. abstract No. 10/B 35650, Vol. 9] and
various alternative methods of certifying achievement considered. The BEC,
when set up, will be responsible for developing a unified national pattern of
courses in the field of business and office studies at levels below that of
first university degree.
In referring to this abstract please quote
Ref. B 57484

Author: COOPER, G. L., DALZIEL, S. J., DONALD, B. L., ODDIE, H.

Innovation in training through research: a case study
p. 272-283.

Research initiated by the Hotel and Catering Industry Training Board
and sponsored by the Department of Psychology at Southampton
University and the Department of Employment, has been carried out to
ascertain the best way of transmitting social skills to new entrants into
the catering trades.

The research was carried out within a large national catering organisa-
tion by consultants with experience in social skills training. Two
distinct training programmes were tested. Programme A, the "skills"
programme, concentrated on giving participants a basic repertoire of
social techniques through a carefully controlled series of teaching
teaching situations (lectures, group discussions, role-play, audio-visual demon-
strations). Programme B, the "social" programme aimed at developing
further expertise in social skills through group interaction and personal
behaviour feedback from fellow trainees. The two programmes, each
consisting of 7 one-week courses, were run simultaneously in separate
centres. Each programme drew participants from two separate and
independently managed motorway catering sites.

The study measured four perceptions of the trainee: trainee's percep-
tion of himself; work associates' perception of the trainee; customers'
perception of service; course trainers' perception of trainees' progress.

Evaluation was carried out: a few weeks before training; on the first
day of each course; on the last day of each course; and 3-5 months
after training. In addition, the measures for customer satisfaction
were taken immediately prior to training and 12 months later.

Salient results of research
1. General training effectiveness. Participants enjoyed the course and
irrespective of programme felt the training was highly effective (over
97%) and relevant to the job (over 70%). A high proportion believed the
course had helped them to be more perceptive of the feelings of other people and to get along with people at work.

2. **Specific differences in programme effectiveness.** "Social" trainees registered changes in self-perception. "Skill" trainees felt they could get on better with other people.

3. **Labour turnover.** A favourable change in labour turnover was associated with the training.

4. **Insight into trainees' contribution to organisation.** Training was expected and was shown to have an effect on the trainee's knowledge and insight into his contribution to the work organisation. However, important gains were only recorded among "social" trainees.

5. **Customer assessment of service.** Favourable impressions were recorded following training, particularly for the "social" course.

**Implications**

There is convincing evidence that the two training programmes were based on fundamentally different training approaches. However, the differences in the outcomes of the two training programmes were not as great as might be expected. Both programmes had a great deal in common in terms of training outcomes. The main differences might be stated as follows: (1) social programme trainees came to a deeper understanding of themselves in terms of the way they relate to their colleagues; (2) skills programme trainees developed a greater confidence in their ability to relate to their colleagues.

No unsubstantiated over-all judgements can be made between the two forms of training. However, the reliability of forms of social skills training for catering staff has been established. The difficulties and cost of obtaining measures of behaviour as opposed to feelings about behaviour have been demonstrated. A small informal group representative of catering industry training officers and others, including some of the research staff on this project, is now advising the Board on some specific recommendations for social skills training.
Training for data processing management

The Joint Industrial Training Board Computer Training Policy Committee has drawn up recommendations with regard to training persons employed in management positions within computer-based data processing.

The recommendations are based on two distinct management levels: (1) management of a specialist function within a data processing department and (2) management of a data processing department. Technical skills of the computer specialist are considered essential to the practice of the position of management of a section. For the post of data processing manager it is the managerial as opposed to the technical skills which are of paramount importance. Comprehensive profiles of the skills and knowledge associated with each level are identified.

In planning any training programme four steps must be taken.

1. **Preparation of job description.** This defines the manager's role and the knowledge/skills required.

2. **Determination of training needs.** Comparison of job description with the individual's current skills and knowledge in order to identify training requirements.

3. **Preparation of training programmes.** Collecting information about relevant training facilities; designing on-the-job training; setting performance levels; determining a method for monitoring progress.

4. **Evaluation of results.** This is essential and implies keeping records and making regular performance reviews.

The suggested modules for off-the-job training and general guidelines for on-the-job training are outlined below. The modules can be combined for each level of management training depending on the background of the individual.

(cont'd)
Off-the-job training modules

General computer appreciation. This is essential for managers who are not computer specialists. Such training should lead to an appreciation of:

- the contribution of data processing to organisational objectives;
- activities which should be undertaken at each state of the computer process;
- the purpose, limitations and implications of computer hardware;
- what is involved in programming and the variety of software available;
- the functions performed by the systems, programmes and operations departments.

Allocated training time: 30 hours.

Common ground. This module includes topics of common interest to all areas of computer management.

Section management. This concentrates on the technical aspects of the particular management function (systems, programming or operations).

Total training time: 45 hours.

Data processing management. Regardless of the route taken to the management position a module including the following items should be included:

- costing, short and long-term planning and assessment, selection and assessment of staff, co-ordination of systems, programming and operations activities.

Management training. In addition to technical management training there is an ongoing requirement for training in general management principles. Many computer managers have not been adequately prepared to exercise the management aspects of their roles.

On-the-job training

This should include structured work projects in which something is seen to be achieved at the end of the project. In designing assignments care should be taken to ensure that the trainee learns that being a manager involves analysing situations and making decisions in unfamiliar areas. Job rotation and service on committees, internal and external, can also help trainees to be more aware of problems and inculcate team spirit.

Other Joint Industrial Training Board Committee reports cover purchasing and supply functions [cf. abstract No. 8/B 51062, Vol. 12], computer operators [cf. abstract No. 10/B 50897, Vol. 12] and computer programmers [cf. abstract No. 10/B 49616, Vol. 12].
My six letters were the ones the machine ate!


By 1976 the Canadian postal service will be using an extremely sophisticated network of computer controlled machines that will reduce the number of handlings of mail to two — the initial feed into the sorting system and the final sort by the local postmen prior to delivery.

A new comprehensive training programme has therefore been developed for the mechanical maintenance personnel who will service the three new postal plants for the Toronto area. The Canadian Post Office approached the Industrial Training Branch of the Ontario Ministry of Colleges and Universities to help with the preparation of this programme.

The first priority was a comprehensive analysis of the entire occupational field of postal systems maintenance. It involved establishing a comprehensive list of all the procedures, tools, equipment, materials, skills and knowledge required to service the new installation. In addition, the areas where training would have to be concentrated were established by studying the frequency, complexity, priority and scope of all tasks performed in the maintenance of the new sorting systems.

The next step was to determine what the postal systems maintenance workers would have to know and to do to perform their tasks. A basic task inventory was prepared.

For each task three training areas were identified: selection of the required tools; operation of the appropriate machines or equipment, and the actual performance of the task itself. Training modules were prepared in these three areas for every major task identified. Objectives were stated in terms of desired performance. These clusters of modules break down each task into digestible components.

The pieces of machinery to be serviced were dealt with in individual modules according to their respective characteristics and applications. Each piece of machinery was viewed in terms of installation, set-up,
operation, testing, maintenance and repair. Separate training modules were prepared for the use of hand tools.

A corresponding performance standard was established for each module. Pre- and post-training tests were developed to determine competence in the specific area concerned. Instruction was therefore built around two things — the reality of the task and the needs of the individual. Training schedules can be tailored to suit the strengths and weaknesses of each individual as determined by the pre-test results.

A master training matrix was constructed to co-ordinate graphically all the required training modules in major skill areas. The modules are listed by subjects in a hierarchy of learning, progressing from the basic background knowledge required by the industrial mechanics to the more advanced specialised skills required at technician level. Both instructor and trainee can use the matrix as a training guide.

Various training methods will be employed in the course of the instruction with lectures, discussions, practical exercises, experiments and demonstrations being the principal means. Media will include general text books, programmed texts and audio-visual aids.

One great advantage of the system is that skills common to a wide range of industries can easily be identified. With minor alterations, the training plan would be suitable for mechanical maintenance workers throughout the material handling, processing and packaging industry.

[Examples: module for metal turning and boring; cross-section of matrix.]
<table>
<thead>
<tr>
<th>Author:</th>
<th>LOFFLER, G., THURN, H., WEIGELT, E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliographical references:</td>
<td></td>
</tr>
<tr>
<td>Translation</td>
<td>Raising teaching standards by rationalising periods for teacher-training observation</td>
</tr>
<tr>
<td>Subject analysis</td>
<td>Article on a report form used to enable the participants in teacher-training observation periods to evaluate the theoretical instruction received: preparation, description and use of the form; use of the information obtained by directors of training institutions.</td>
</tr>
</tbody>
</table>
| Contents analysis | To raise the level of vocational training, it is desirable above all to improve the quality of teacher-training. In particular, it is essential that directors of training institutions should have the information they need to evaluate the instruction given according to uniform criteria. A standard form was accordingly devised to take the place of individual reports on teacher-training observation periods (Hospitation). The following considerations determined the character of the form:  
- it had to be limited to theoretical instruction;  
- its structure should serve as a guide for the evaluation of the courses and enable the essential factors to be brought out;  
- to permit centralised assessment, it should preferably follow the multiple choice system;  
- it should be completed for the most part during the observation period and designed in such a way as to minimise the time taken to fill it in. |
| The form is supplemented by a questionnaire whose purpose is to enable a deeper analysis to be made of specific aspects of the assessment. The form itself deals mainly with: the level of education and training of the teacher; documents used in the preparation of the instruction; the aims of the instruction and the extent to which they have been attained; the teaching methods and techniques; the educational value; the further training needed or desired; the conditions in the class; evaluation/conclusions based on the replies to the questionnaire. |
| The evaluation must take place immediately after the course (ideally the day following). The participants must have adequate time for the purpose: 1h for an individual observation period, 2h for a group observation period. It must embody clear conclusions which can be used directly by the teacher to improve his teaching. |
| (cont'd) |
The results of these analyses, used in conjunction with other educational research, provide training directors with the means to evaluate teacher-training courses more effectively and so enable them to make more rationally based decisions.

[Example of the forms.]
A survey of training officers in the engineering industry was carried out by the survey section of the Engineering Industry Training Board during 1972 and 1973. The survey covered 500 training officers in 236 firms employing more than 250 people. The data were obtained by questionnaire in November and December 1972, and provide information on the qualifications, career patterns, responsibilities, training and aspirations of training officers.

Of the 9,000 training officers in the industry as a whole, two-thirds were in firms with over 250 people. The majority (89%) of such firms have at least one training officer, and the average is 5 training officers per 2,000 employees.

The typical training officer is revealed as a man (only 6% of the sample were women) over 40 years of age, whose school education did not reach an advanced stage, but who later took an engineering or technical qualification through part-time study. Only 25% of the sample had attended full-time or sandwich courses. Before becoming a training officer he had generally been a craftsman, technician, instructor or supervisor.

The training function appeared to have a relatively low status. The head of the training department typically reported to a personnel specialist, himself only at middle-management level. Training activities were limited mainly to supervisors, operators and craftsmen. Less than half the training officers were responsible for management training. A tenth of the training officers had had no relevant training for their job. Many of them were trying to take steps to remedy their own deficiencies. The number of courses attended by training officers shows a marked rise since 1970. The subjects on which there was most emphasis were: behavioural sciences, management training, quantitative methods of data collection, analysis and interpretation, and industrial relations.

(cont'd)
In all age groups the training officers expected to move out of the pure training role into a wider personnel management one. A small number of the younger age group appeared to regard a position in training as a step on the ladder to a general management career.

Conclusions

- The current age and qualification structure is unlikely to cope with future needs. It has to be considered whether the function should attract more people having broader-based industrial experience, with management and social science qualifications. This could give the function increased status and more recognition from top management.

- The present composition of training officers reflects industry's response to the 1964 Industrial Training Act [cf. abstract No. 1/09825, Vol. 3]. Their main role appears primarily to be that of liaison with the Industrial Training Board. But just as boards are shifting their emphasis away from day-to-day training needs of individuals, in order to take a more comprehensive view of the organisation's future development [cf. abstract No. 2/B52472, Vol. 12], so too will the company training officer need to adopt a wider outlook.

- The status of the training officer must be upgraded. The aim should be to bring his role more into line with a wide human resources function as outlined in the Central Training Council's recent report Training for the Management of Human Resources.
To remedy the shortage of qualified staff in vocational secondary schools, the Quebec Ministry of Education launched an experimental programme in 1972, making use of the experience of a training project for primary school teachers carried out by the Laval Pilot Centre (Centre pilote Laval) which was based on the "situational method". This method places the future teacher in a simulated learning environment resembling the actual teaching situation as closely as possible in which he can acquire self-knowledge, learn to understand adolescents and master the skills and techniques which assist learning.

The Ministry's programme called for the co-operation of school, university and industry. To begin with it has been limited to the initial training of existing teachers who have been engaged without having the required qualifications.

Chief characteristics of the programme

Aims. To try out in teacher training institutions psycho-pedagogical courses in order to test the hypothesis that the best formula for training vocational education personnel consists in programmes adapted to the various institutions, starting from a common basic syllabus, administered in conjunction with scholastic circles and industry, and making maximum use of situational teaching methods.

Method. The adaptation of the basic syllabus is left to each training institution, according to its means. The specialists now employed in training vocational education personnel will be reorganised into teacher-training teams. These teams will devise experimental projects, in collaboration with the co-ordinators of vocational education.

Self-assessment. Particular objectives, both short-term and long-term, will be fixed by the co-ordinating group and the universities; the short-term objectives will be evaluated first by the teacher-trainee himself, then by the co-ordinating group.

(cont’d)
Teaching workshop. Experience in a teaching workshop — sometimes as student, sometimes as group leader — gives the future teacher an opportunity to discover his real personality, his image in the eyes of others, to work in a team, and to discover also his strong points and his limitations.

Execution of the project

<table>
<thead>
<tr>
<th>Stage</th>
<th>Duration (in weeks)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>15</td>
<td>Introductory and observation periods; identification of practical problems encountered by the teachers.</td>
</tr>
<tr>
<td>II</td>
<td>15</td>
<td>General teaching methods, teaching systems.</td>
</tr>
<tr>
<td>III</td>
<td>6</td>
<td>Psycho-pedagogics.</td>
</tr>
<tr>
<td>IV</td>
<td>15</td>
<td>Introduction to communication.</td>
</tr>
<tr>
<td>V</td>
<td>15</td>
<td>Teaching methods, teaching techniques, evaluation.</td>
</tr>
<tr>
<td>VI</td>
<td>6</td>
<td>Practical training period in industry.</td>
</tr>
</tbody>
</table>

A research group has been set up by the Ministry of Education to verify the basic hypothesis in some of the institutions. The results will be available at the end of 1975.
Qualifications and training of programmers, operators and setters of numerically controlled machine tools

Subject analysis

Article on research in the mechanical engineering industry into the tasks of workers on numerically controlled machines: method; results; how to construct the skills profiles.

Contents analysis

The increasing number of numerically controlled machines expected to reach 38,000 in 1978, entails important changes in the occupational descriptions of machine tool operators. The German Council for Education (Deutscher Bildungsrat) [see abstract No. 1/B 39855, Vol. 10; Strukturplan für das Bildungswesen] recommended modifications in training which would call for a "numerically controlled machine tools" programme to be incorporated in the training of the principal trades in the mechanical engineering industry. A study was therefore carried out to establish on an empirical basis the skills required by workers employed on such machines.

Method

The study was carried out by questionnaire (filled out by the researcher in an interview) made up of four parts:

(1) previous training and experience;
(2) analysis of tasks performed;
(3) training taken for present occupation (character, duration, content);
(4) motives for undertaking training and opinion of same.

It was conducted in 5 typical firms in the mechanical engineering industry using at least 5 numerically controlled machines. The survey was limited to the State (Land) of Hesse. The manufacturer of the machines was also questioned. The respondents were interviewed while working at their job.

115 questionnaires out of 125 were completed: 76 operators (60%), 31 programmers (27%) and 8 setters (7%).

The results were used to specify the skills required by programmers and operators, listed according to 5 degrees of priority: 1. indispensable;
2. very important; 3. advantageous; 4. required only exceptionally; 5. unnecessary.

The categories of skills, theoretical and practical, were defined: 1. elementary mathematics; 2. elementary physics; 3. working techniques; 4. measuring and setting; 5. assembly techniques; 6. mechanics; 7. study of materials; 8. technical drawing; 9. specific skills for the different occupations on numerically controlled machines; 10. personal attributes (qualifications and aptitudes). A skills profile was constructed for each category (see example).

Example
Skills profile for "measuring and setting"

<table>
<thead>
<tr>
<th>Programmer</th>
<th>Skills</th>
<th>Machine operator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>tracing, jigboring, punching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>measurements of lengths, surfaces, angles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>thread measuring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>use of slide calipers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>setting, assembly, clamping</td>
<td></td>
</tr>
</tbody>
</table>

[Diagrams giving results of inquiry.]
In referring to this abstract please quote
B 57947

Planmässige Beurteilung in der Berufsausbildung - ein pädagogisches
Hilfsmittel für den betrieblichen Ausbilder
Betriebliche Ausbildungspraxis, Düsseldorf, Vol. 19, No. 108,

Systematic evaluation of vocational training — a professional tool for
training personnel within industry

Article on the need for objective techniques to assess the results of
training: characteristics of methods of observing behaviour during
training; quantifying the results; importance of involving training
personnel in evaluation practices.

Till now, assessment of young people in training has been based mainly
on results at the vocational schools, on the intermediate examinations
and to some extent on the apprentice work-record book. These do not
permit an objective assessment of the trainee's behaviour throughout
training.

Assessment should: be limited to behaviour within the undertaking; be
made in writing and presented in a simple style; be carried out at
reasonable intervals; be readily compared; refer solely to aspects of
behaviour of significance in training; be logical and coherent.

Assessment along such lines involves continuous and close observation of
the trainee to identify the following characteristics:

(1) general aptitudes — reflection, concentration, attention, etc.;
(2) behaviour at work — goodwill, speed, orderliness, etc.;
(3) attitude to colleagues — co-operation, adaptability.

These observations can only be properly evaluated if they are reported
on specially designed forms, based on a limited number of characteristics
which are clearly defined and capable of assessment against normal
(or average) behaviour. The instructor should be able to grade his
trainees for each characteristic in relation to this average.

Grading calls for a scale. To grade the faculty of comprehension, for
example, a scale with the following five degrees can be used.

1. Fails to understand simple matters, even after several explanations.
2. Usually does not understand immediately; more detailed explanation
   required.
3. Understands the general idea, grasps what is essential.

(Cont'd)
4. Understands quickly, reflects, is able to distinguish between the essential and the inessential.

5. Understands exceptionally fast and goes one step further, instant understanding of what has to be done.

Only such a system, with quantifiable criteria, will avoid the usual errors of judgment. It is also indispensable, however, to accustom instructors to observe, to judge and to evaluate. Natural gifts and good intentions are not enough.
Some examples of innovative activity in industrial training
Price: £0.60.

Following proposals made by the National Council for Educational Technology (NCET) a study, funded by the Department of Employment and the Department of Education and Science, has been carried out to identify innovative training methods in industry. It was agreed that "innovations" should be understood as "those concepts and/or activities which are novel to the users". The period of use before being excluded from the list should be about 4 years.

The purposes of the investigation included: (1) establishing a list of all the significant examples of the effective use of innovative teaching techniques in industrial training; (2) a detailed study of those examples selected as being particularly important, whether because of their success or because of their failure; (3) recommendations on how to stimulate the widespread adoption of innovative training methods; (4) ways in which the list of such methods might be kept up to date.

The investigation was undertaken with a view to initiating a service for industry, commerce, service organisations and appropriate institutions of further and higher education. The initial list comprises 23 entries, selected innovations covering a diversified range of training situations, e.g. decision-making for craft trainees, clerical training, teaching aids for statistics in industry. Each entry has been classified according to the system used for the Training Research Register of the Department of Employment, thereby linking in concrete fashion research and innovations.

Basic reference information is provided with each item included in the selected list of innovations to assist readers in following up particular items, e.g. sources of information, summary of objectives and procedures, date, location, channel for further information, stage of development (concept, research, experiment, pilot project, application).

The criteria for including items were as follows: (a) potential large-scale application should be a reasonably high probability; (b) the potential
application of an item should not be confined to a specialist field of training with very few trainees or students; (c) it should be feasible for new users to operate it with success; (d) the theoretical basis should be acceptable to experts in the particular field.

By its nature any list of innovations will need updating. For this reason suggestions for ongoing activity have been made as outlined below.

- The first list published should be discussed with representatives of the industrial training boards so as to see how selected items might more effectively be brought into more general use.

- Industrial training boards might offer companies in their respective industries a service providing information on innovations.

- Seminars should be held to publicise the listed innovations.
LOUCHET, P., HAUTEKEETE, M.
Transfert d'apprentissage et niveau opératoire

Author:
Title:
Bibliographical references:

Translation

Transfer of learning and operational level

Subject analysis

Article describing a study on the phenomenon of the transfer of knowledge in the apprenticeship of adults: stages in the development of intelligence and operational skill; hypotheses; progress of the research; results; conclusions.

Contents analysis

In adult training it is essential to have more knowledge of the actual process of learning involving as it does the acquisition of skills and knowledge, improved motivation and knowledge of how to learn. Up till now, research on the phenomena of transfer have dealt mainly with animals, children and highly educated adults. However, the systematic organisation of adult training depends on understanding the importance of transfer for adults at a lower level of education. This was the object of the study. It was carried out in 1970-71 by the psychology unit of the department dealing with the economics of lifelong education at Lille University. The subjects were adults aged 18 to 40 at two adult vocational training centres. They were divided into (a) control groups (30 persons: welders, long-distance drivers); (b) experimental groups (97 persons: welders, masons, refrigerator fitters and repairmen, vehicle sheet-metal workers, radio and television fitters and repairmen, draughtsmen-planners in mechanical construction.

The influence of the following factors on the transfer process were studied in particular: teaching methods (experimental, in groups or individually; traditional), educational starting level, age.

Conclusions

Transfer is strongly influenced by: acquisition of positive attitudes, acquisition of principles and an understanding of the methods required to discover them, the acquisition of a systematic learning approach. As far as the organisation of adult vocational training is concerned, particularly where mobility and adaptability are aimed at, this implies the necessity of determining: the operations which are the basis of intended learning; learning the laws or relationships which are most easily transferred; teaching methods which promote transfer to the greatest extent. All specific learning must be preceded by learning to supply an intellectual base which will facilitate, by the transfer mechanism, the understanding of the programme studied. [Cf. also abstract No. 13/B 57750, Belgium, Vol. 12.]
SPERLING, P.
Evaluating training programs: the AID experience

Article on deficiencies in existing systems to evaluate training programmes for the developing countries: need for evaluation procedures to concentrate on the outcome of training rather than its effect on individuals.

In supporting training programmes for the human resources of the less developed countries, the US Agency for International Development (AID) has two objectives: to upgrade the technical skill necessary for improving the productive capabilities of a country, and to broaden the outlook of the trainers through their exposure to modernisation.

To determine the effectiveness of training programmes carried out in the United States, AID has used a number of evaluation techniques. These techniques assemble data from multiple sources: from the participants themselves and from others. Evaluation is carried out prior to training, during training and after training.

Assessment by participants is based on questionnaires and personal interviews. Between July 1967 and March 1972 AID made a major effort to ascertain training effectiveness through a programme of exit interviews. Some 10,000 individual participants from more than 70 countries completed questionnaires and were interviewed.

Information has also been sought from participants on the value of their training after they have returned to their homes. Twelve years ago more than 12,000 former participants were systematically interviewed in their own language and in their own country. More recently, a "model" questionnaire was designed to be used, with local adaptations, to elicit information from each participant about the degree to which he was utilising his training.

However, in spite of the many statistical devices which can be used for maximising the validity of the information received from participants, it is recognised that such information is essentially subjective. Information is therefore sought from other sources: e.g. marks allotted at the colleges and universities, reports from academic advisers and foreign student advisers, and all other reports from officials at training institutions who may have a different outlook from the participant himself.
Supervisors and other people familiar with the participants' courses are also interviewed. A further technique is the collection of success stories. Thus a "multi-perspective" picture is built up on all aspects of the training — its efficiency, its effectiveness, its appropriateness, and its relevance.

Over-all, a great deal of information has been gathered from this multi-perspective evaluation. The results have been uneven. They have been useful in order to assess certain institutions and methods of training but evaluation of the effect of training after the participant returns home has proved less effective.

Most people seem quite certain that the effect of training is a positive one. But the method of actually demonstrating this has not yet been devised. Traditional techniques have concentrated too much on the change within the individual, rather than on some change brought by the trained individual.

Evaluation research should probably concentrate on the outcomes after training — on the measured products produced by the trained person. The questions to be answered are: What is produced as a result of training? And what does that bring about next?
In referring to this abstract please quote N° B 56989


Translation

Sandwich courses in commercial vocational schools

Article pointing out the disadvantages of sandwich courses for students, for small undertakings and for teachers; the need to proceed with care.

Contents analysis

The question of sandwich courses (Phasenunterricht) was raised on the occasion of the reorganisation of basic vocational training (Grundausbildung) in commercial occupations. The discussion remains open. Experiments carried out with sandwich training, notably in the German Federal Republic [cf. abstract No. 13/B 56974, Vol. 12] and Switzerland have demonstrated certain advantages. Disadvantages have also come to light.

The students complain of the monotony of the school period and the excessive fatigue it causes. In the opinion of large firms, favourable on the whole to the sandwich system of training, the period in the undertaking also entails overwork.

While the forging of links between the undertaking and the vocational school has positive aspects, it can lead to a conflict with regard to areas of responsibility.

The system is ill-adapted for small undertakings, since it keeps the apprentice away from work too long; the adoption of the system could induce them to give up taking on trainees.

The legal duration of the probation period being from 3 to 6 months, the introduction of sandwich courses presents several problems, since the undertaking has only a few weeks during the school holidays in which to assess the apprentice's abilities. He, in his turn, has to make up his mind without an opportunity to know enough about the occupation.

As far as the teaching staff are concerned, it is difficult to guarantee them regular employment throughout the year.

It would be advisable to proceed with care and not lose sight of the interests of the trainees. Before pronouncing on the value of sandwich courses, a sufficiently lengthy trial period of the system is required and results should be compared with those of the traditional system of related instruction at its best.
<table>
<thead>
<tr>
<th>Trainee Youth</th>
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<td>13</td>
<td>Germany (Fed. Rep.) 430.2</td>
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**Author:**

DAUENHAUER, E., KLAN, J., ACKERMANN, W.

**Title:**

Ergebnisse zum Schulversuch Blockunterricht


**Translation**

Results of an experiment on sandwich training in the vocational school system

Article giving the principal results of a study of an experimental system of sandwich training: hypotheses; results.

**Contents analysis**

An experimental system of sandwich training (Blockunterricht) was initiated in 1971 in the Land Rheinland-Pfalz (Rheinland Palatinate). It comprised 5,684 students, 264 teachers, 22 occupational descriptions and 31 vocational schools. A survey based on 30 hypotheses was conducted at the same time. Some of the main results were as follows.

1. **Students.** Motivation strengthened significantly. Memory retention tended to improve. Teacher-student relations improved. The optimum theoretical instruction period in the vocational schools varied: commerce, 4-12 weeks; industry, 2-7 weeks; agriculture, 4-12 weeks.

2. **Teaching personnel.** Under such a system a greater effort is demanded of the teaching personnel: reorganisation of work schedules, correction of home-work, etc. A large majority wished to continue sandwich courses, which permit, in particular, the use of new teaching methods and techniques. However they have to contend with organisational difficulties, the opposition of some employers and increased work load. Most school principals considered that existing programmes were not an obstacle to the new system, while one teacher in two rejected them. The majority of teachers considered school-industry co-ordination essential, but beset by great difficulties. In general, they did not question the dual system (school/industry) of training.

About two-thirds would like sandwich instruction organised in such a way that partial secondary school qualifications could be obtained by trainees. On the whole, they did not believe that the system of sandwich training really eliminated discrimination between educational streams.

3. **Training officers, instructors.** Industry wished to maintain sandwich training as it reduced the training time, minimised dropouts, etc. A few saw it as an opportunity to rethink the system of on-the-job training; more than half were against surrendering part of the training time to the schools. The teaching qualifications of training officers and

(cont'd)
instructors militated against the best organisation of training and also hampered full co-operation with the schools.

4. Parents. About 86% liked the system as it increased young people's interest in the school. More than half had no contacts of any kind with teachers; their influence on the organisation of instruction was practically nil.

5. The vocational school. About one-third of the schools which had not tried sandwich courses considered that buildings and staffing would cause a problem; most schools, whether participating in the experiment or not, considered differentiation of instruction (combining compulsory and optional subjects) impractical at the present time, given the structure of the educational system [cf. abstract No. 1/B 39865, Vol. 10] proposed by the German Council for Education (Deutscher Bildungsrat). The school principals and about 50% of the teachers of preparatory classes for industry (25% for commerce) did not consider existing programmes an obstacle to experimentation in sandwich training, but considered that they made satisfactory co-ordination between on-the-job training and school instruction difficult.

6. Undertakings. Theoretical instruction varied from 9 hours and more to none at all. Undertakings which could not or would not impose a minimum programme permitting comparisons with other undertakings should be excluded. Only 10% favoured transferring theoretical instruction to the school. A majority found it necessary to carry out part of the training in group workshops.

7. General conclusions. The system conforms to the principles of secondary education embodied in the proposal of the German Council for Education. Its introduction would entail profound changes in the relationship between theoretical and practical instruction.

[See also abstract No. 4/B56977 , Vol. 12, Federal Republic of Germany.]
Operational curricula for sandwich training

The law of 1972 on vocational training in Land Bayern (Bavaria) encourages the replacement of part-time related instruction at a vocational school by sandwich courses, comprising several alternated periods (Phase) of full-time study at school and within the undertaking. The models devised to date are for training courses of 2.5 to 3 years.

Main advantages. Sandwich training establishes a framework for acquired skills and knowledge by linking theory and practice; it increases motivation; the organisation of instruction by subjects around a central theme furthers collaboration between the instructors; it ensures constant adaptation of instruction to technical and economic evolution; the rational organisation of instruction enables the introduction of optional subjects (technical English, data processing, etc.); it furthers contacts between all interested parties.

Conditions for implementation. It is necessary to: guarantee that training within the undertaking follows the operational plan drawn up for the periods; constitute one class for each trade (or preferably two parallel classes); organise each period in co-operation with the interested undertakings.

Concept behind the operational curricula (curricularer Lehrplan)

Till recently, vocational training curricula have been determined by the subject matter to be learnt in a given time. However, objectives are now increasingly taking precedence over subject matter. It is becoming a question of more knowing why one should learn than what is to be learnt.

To define the objectives of training, four concepts are employed: knowledge, ability, judgement, values.

Four groups of objectives are distinguished, by relation to their degree of abstraction: (1) over-all objectives (Leitziel), e.g. individual emancipation; (2) indicative objectives (Richtziel), e.g. ability to distinguish (cont'd)
between fact and opinion; (3) specific objectives (Grobziel), e.g. ability to recognize the measures needed for protection of the environment in so far as they are the responsibility of society; (4) sub-objectives (Feinziel), e.g. knowing the required notice for termination of employment. The lines of demarcation between these groups, however, are fluid.

The operational curricula design is divided into four parts:

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<th>2 Learning content</th>
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<tbody>
<tr>
<td>indicative</td>
<td>subject matter</td>
<td>type of instruction</td>
<td>oral</td>
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<td>specific</td>
<td>themes</td>
<td>method</td>
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<td></td>
<td>work project</td>
<td>means</td>
<td>practical</td>
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<td></td>
<td>lectures, etc.</td>
<td>use of time</td>
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Operational curricula seek to balance the attainment of previously determined objectives with a wide measure of freedom for the teacher. Parts 1 and 2 are essential; some liberty is permissible with 3 and 4. The precise way to attain an over-all objective should be embodied in models constructed by the schools and the interested parties at the State Institute of School Pedagogics (Staatsinstitut für Schulpädagogik).

[See also abstracts Nos. 4/B 5677 and 13/B 56974, Vol. 12.]
In referring to this abstract please quote N° B 58713

Trainee Young

Sector -

ISCO -

CIRF 13

Country USSR 47

Author:

Didaktische Grundlagen des Produktionsunterrichts

Title:


Bibliographical references:

Didactic foundations of production training

Translation

Paper on the underlying principles of production training as a means of vocational training: objectives and major functions of production training; inherent constraints and their solution; organisation of the training and evaluation of its effectiveness.

Subject analysis

Paper on the underlying principles of production training as a means of vocational training: objectives and major functions of production training; inherent constraints and their solution; organisation of the training and evaluation of its effectiveness.

Contents analysis

This paper was prepared by the All-Union Research Institute of Vocational Training (Vsesojuznyj Naučno-issledovatel'skij Institut po proftehobrazovaniyu), Leningrad, as a basis for discussing the didactic problems of production training with training specialists and scientists in the German Democratic Republic.

Production training should consist of a scientific combination of productive and pedagogical objectives in a learning process designed to develop not only technical skill, knowledge and understanding but also the personality of the trainee. The special characteristics of production training are:

- the production process has been specially organised for achieving efficient learning; it therefore requires initial analysis to determine what work elements have both instructional and production value;

- as a practical complement to the learning of theory, it should help develop both an understanding of and skill in the construction, functioning, operation and servicing of machines and equipment.

In addition to being taught technical skills and knowledge the trainee should also be trained to plan and organise work, to analyse and control results achieved and to work in a team. The most proficient trainees should be developed into team leaders. The teacher/instructor (Lehrmeister) should supervise both the learning and the production performance of the trainee.

Production training has the following major functions:

- to explain the work process through task-oriented and independent application of theoretical knowledge, under the general supervision of the teacher/instructor;

- to develop the skill required for doing the job correctly by gradually increasing the degree of complexity and difficulty of the task;

(cont'd)
- to develop the trainee's ability to analyse his own performance and to plan, organise and control the work process in conjunction with the teacher/instructor.

Production training is subject to both external and internal constraints.

**External constraints:** the full production process cannot always be shown; laboratories or training workshops cannot always provide realistic conditions of production; tools, equipment and technical organisation in training cannot always be as advanced as in real production.

**Internal constraints:** production often requires different and more complex skills and knowledge than the trainees possess; transfer of theoretical knowledge to real production applications is often difficult for learners.

Both types of constraint can be overcome by analysis of the production process for instructional purposes and by leading the trainees gradually to apply their knowledge to increasingly complex tasks.

Training must include a planned mix of observation, study of science and technology, learning of job instructions and practical application. Two task variants must be distinguished: (1) learning the construction, functioning and operation of technical equipment; (2) learning to determine work methods. Training aids must be chosen as a function of the training objectives of achieving manual skill, mental agility and sensorial-intellectual ability respectively.

The organisational patterns of the training and the choice of methods and equipment should be determined on the basis of an analysis of: (1) training content; (2) didactic goals and objectives; (3) the level of experience and the learning ability of the training group; (4) the personality traits and qualifications of the teacher/instructor. They should be evaluated in terms of training effectiveness which in turn, should be assessed in terms of (1) knowledge acquired, (2) skills developed, (3) transfer ability, (4) stability of acquired attitudes and personality traits.
A large-scale pilot project in work-oriented literacy has been carried out in Iran. It started out tentatively in 1966, increasingly gained impetus and it is anticipated that the techniques developed will eventually be implemented on a national scale. The aims of the project were to help the Iranian Government: to devise, prepare and implement a series of functional literacy training programmes for workers of both sexes aged from 14 to 45 in homogeneous social and occupational groups; and to evaluate the impact of these programmes on economic growth and social change, in particular by measuring its effects on the behaviour, attitudes and qualifications of workers.

The experimental areas chosen corresponded to typical situations of change in Iranian society where illiteracy was hampering the economic growth of the area in question.

The project was based on rural and industrial development sectors in the Dezful and Esfahan region. The rural project was within the context of a vast irrigation programme linked to a programme of agricultural modernisation. The project presupposes profound changes among the population — new habits, new farming techniques, new crops. Illiteracy in the region is highest in Iran: 80-85%. Literacy training is linked to improving farming techniques, diversifying production, more efficient use of water resources and improved product marketing.

The industrial project is linked to the development of a metallurgical complex at Reese and to modernisation of the textile industry at Esfahan. Many difficulties were encountered. There was the question of educational premises, the difficulty of synchronising training time and working time, and the complete lack of stimulus from managements, particularly in the textile industry. In addition, difficulties of organisational and administrative co-ordination had to be solved.

(cont'd)
Institutionalised co-ordination did not come up to expectations until 1970 when the Prime Minister set up an inter-ministerial Co-ordinating Committee. This Committee was specifically responsible for making recommendations on the means whereby the implementation of the project was to be linked with the aims of the National Development Plan.

The working hypothesis of the project was that once the socio-occupational framework has been adequately defined, it is possible to deduce the fundamental components necessary for a work-oriented literacy programme. The aim was to make the knowledge acquired through literacy training more useful and more effective, by adding an "extra something" which is hard to define.

Micro-experiments were carried out with homogeneous socio-occupational groups in specific work situations. The gestation period for the full development of a satisfactory teaching approach took three years. The approach as such considers functional literacy to be the point of departure for a continuous training process — and particularly one of self-training — for adults whose world has been altered by economic change. It is fitted into a total context which is defined "cultural development". The aim is, ultimately, to make individuals responsible for and capable of training themselves to meet the requirements of the situation in which they operate. Perhaps it will need a generation or more, for such cultural development to become irreversible.

The implementation of the project called into question the habits and theoretical assumptions of all those working on the project. The authoritarian role of the teacher was replaced by group work. The pupils were not regarded as illiterates but as adults with a high degree of skill in traditional techniques, notwithstanding their educational handicap. The project itself contained different experimental instruction methods. The next step will be to draw the necessary conclusions from the expert reports of the consultants by analysing the methods which the project pioneered.

[See also abstract No. 2/B 55449, Vol. 12.]
Following the decree of 18 January 1967 requiring the Interministerial Committee for Vocational Training and Social Advancement (Comité interministériel de la formation professionnelle et de la promotion sociale) to co-ordinate activities in the field of vocational training and employment policy, a general inventory was undertaken of the institutions devoted full-time to vocational training and social advancement (levels IV and V: skilled workers or employees, supervisors and technicians).

The first stage was to catalogue public training facilities (cf. "Training Atlas", published in 1969). The present inventory presents the initial results of a survey conducted in 1968 into private training facilities, as part of the second stage.

**Aims.** To carry out a census of all training facilities financed by private investment, the institutions concerned being assessed by: (a) numbers in training; (b) recruitment capacity.

**Limitations.** Certain ambiguities in the data handicapped the interpretation of the results. The findings formed the basis of an analytical study carried out by the human geography laboratory of the National Research Centre (Centre national de la recherche scientifique), which was concerned mainly with: (a) whether the systems studied were expanding or tending to disappear; (b) the social significance of this type of training; (c) its value on the employment market.

**Main results**

**Vocational schools attached to undertakings.** The number of such schools has tended either to remain constant or to diminish since 1966, indicating a reduction in full-time training within the undertaking by some employers. With the reduction in the length of time qualifications remain useful resulting from technological development, the cost of initial training rises. The drop in participants can also be accounted for by: (1) the concentration of undertakings and the regrouping of companies; (2) the raising of
the compulsory school-leaving age, which reduced the recruitment pool of apprentices in 1967-68. None the less, training within plant schools remains an important avenue of advancement.

Apprenticeship is still an important training channel. Being a feature of the smaller undertakings, however, it is tending to decline. In 1962, some 22% of boys aged 17 years and 15% of those aged 17-19 entered apprenticeship; by 1968, the figures were respectively 20% and 13%. Apprenticeship remains particularly important in the central western region of France where it is a corollary of the survival of small undertakings. The continuance of the apprenticeship system is only associated with lower educational standards in rural communities and small towns. Its capacity for adjusting to employment demand is difficult to assess. Statistics of interregional labour mobility suggest that apprenticeship is followed by migration to regions offering better job opportunities. The rural exodus often involves a change of occupation nullifying the previous training.

Training of girls. In 1968, 23,000 girls, or one student in 10 taking private vocational training, were working for a trade certificate (certificat d'aptitude professionnelle — CAP) in domestic science. This type of training is given mainly in denominational institutions or courses run by employers. The employers’ domestic science schools recruit in industrial regions where there is little demand for the service occupations and employment prospects for skilled female workers are poor. It is becoming increasingly common for the recruits to domestic training schools to be dropouts from the traditional education system. They are often only seeking a means of completing their compulsory schooling. The training given is less and less appropriate to the needs of rural development. The number of participants fell from 30,734 in 1962-63 to 11,761 in 1970-71. Some of the schools have been converted into centres for the physically handicapped or for the training of unemployed girls, or into vocational schools offering a CAP in community work or for occupations in the social and health services.

[Tables and diagrams; list of institutions.]
List of periodical publications abstracted, 5th despatch 1974
Liste des publications périodiques résumées, 5e envoi 1974

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<td>Canadian Vocational Journal</td>
<td>(Ottawa 4)</td>
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Education permanente (75 – Paris 16e)
Agence nationale pour le développement de l'éducation permanente
51, bld de Montmorency
5 nos p.a. FF 25

Education and Training (London WC2R 3LF)
Macmillan Journals Limited
4 Little Essex Street
12 nos p.a. £ 5.50

Feuille Fédérale (3001 Berne)
Chancellerie Fédérale
Imprimerie des Hoirs C.-J. Wyss S.A.
52 nos p.a. FS 68

Focus (Washington, D.C. 20036)
Society for International Development
1346 Connecticut Avenue, N.W.
4 nos p.a.

Formazione e Lavoro (00153 Roma)
Ente Nazionale ACLI per l'Istruzione Professionale
Via C. Pascarella, 31
6 nos p.a. Lit. 5000

Gazzetta Ufficiale della Repubblica Italiana (00100 Roma)
Libreria dello Stato
Piazza Giuseppe Verdi, 10
Daily/quotidien Lit. 21.030

Industrial and Commercial Training (Guilsborough, Northampton)
John Wellens Limited
12 nos p.a. £ 5

Istruzione tecnica professionale (Torino)
Consorzio Provinciale per l'Istruzione Tecnica
Piazza Solferino 7

Jednotná škola (Bratislava)
Slovenské pedagogické nakladatel'stvо
Sasinkova 5
6 nos p.a. Kčs 50

Dziennik Urzędowy Ministerstwa Oświaty i Wychowania (Warszawa)
Ministerstwo Oświaty i Wychowania
PUPIK "Ruch" Łódź, ul. Kopernika 52
Irreg. Zł 30

Education permanente
Agence nationale pour le développement de l'éducation permanente
51, bld de Montmorency
5 nos p.a.
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