

ECONOMIC AND SOCIAL COMMITTEE  
OF THE EUROPEAN COMMUNITIES

**Systems of education  
and vocational training  
in the member countries  
of the European Community**



**STUDY**

**Brussels**

*The Committee approved this Study at its Plenary Session of 12 and 13 December 1973, during the term of office of Mr Lappas, Committee Chairman for 1972-1974.*

*The Study was drafted by the Section for Social Questions—Rapporteur Mrs Maria Weber.*

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## PREFACE

The aim of this Study is to help regalanize the drive to align vocational training in the Community. Up to now, vocational training has not received much attention in the overall re-assessment of education. This is partly due to the widely made distinction between general and job-orientated education.

The Economic and Social Committee has repeatedly considered educational and training issues. The Committee's Section for Social Questions has noted that progress towards alignment in this sphere will have a crucial influence on the development of the Community. The high rate of unemployment among young people has once again highlighted the fragmentation of vocational training systems in the Community. In recent years the Commission, the European Parliament, the Economic and Social Committee and the two sides of industry have recognized the need for a special Community institution for vocational training.

In 1970, a Committee study group, chaired by Mr Manlio Gormozzi, reviewed educational and training systems, and considered the question of a Community institution for vocational training and guidance. The Rapporteur, Mrs Maria Weber, surveyed the present patterns, probable future development and objectives of education and vocational training in the six Member States. The study group was able to refer to an earlier study, entitled 'An Action Programme for a Common Policy on Vocational Training, both general and in the field of agriculture'; this had been drawn up in the Section for Social Questions by Mr Gormozzi in 1967. These studies, and other Committee Opinions on vocational training, called for gradual alignment of the final stages of vocational training systems, so that workers would be able to take up job offers anywhere in the Community.

In the discussions relating to Mrs Weber's 1970 study, the Committee came to the conclusion that greater importance should be attached to the objective of aligning educational and vocational training systems in the Community. Since 1970, an appendix has been added on educational and vocational training in Ireland, Denmark and the United Kingdom. But it must be stated that the study is very limited in scope, and was produced under difficult conditions. Even with the appendix, it cannot claim to be thoroughly researched. However, it should be emphasized that it does expressly call for a European Centre for Vocational Training, and such a body has now been set up in Berlin. In fact, one of the main conclusions of the study is the need for a central body for research into education and vocational training.

It is also found that Member State educational and training systems were structured differently, because of the varying social, economic and technological conditions. On the other hand, the call for equal educational opportunities is becoming stronger.

It has already been pointed out in the Social Action Programme and in the Economic and Social Committee's Opinion on Education in the European Community (CES 487/75) that a genuine common educational policy will make it possible to

find a satisfactory solution to the countless human problems which are inevitable in setting up an integrated common market.

Improved and aligned vocational training can be an effective weapon in combatting unemployment among the young (at present, 3 million young people are unemployed in the EEC). Many of the problems connected with the emergence of a geographically and occupationally mobile workforce could be solved.

In short, the study surveys the present differences between training systems, calls for the establishment of equivalent vocational training levels, and discusses the pre-requisites for equal educational opportunities. It is still very much a relevant document, because of its call for central, basic research within the Community framework. Without this, educational alignment cannot be achieved.

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## INTRODUCTION

Vocational training issues have frequently been discussed by the Section for Social Questions of the Economic and Social Committee. They were dealt with in particular depth at the 50th meeting (Doc. CES 598/69) and the 52nd meeting (Doc. CES 94/70). At these meetings it became particularly obvious how very important the systems of education and vocational training in the Community are, and what a decisive influence developments towards harmonization will have on the future development of the Community.

However during the discussions it was unfortunately established that inside the Community education and vocational training has still not so far received due attention. It was noted with disquiet that the Commission responsible for these matters had so far obtained neither sufficient staff nor sufficient funds to carry out the basic work necessary to solve, more specially, the problems of a sensible harmonization. In this context numerous members referred to the necessity for the establishment of a European institute for research into vocational training.

At the 53rd meeting of the Section for Social Questions (Doc. CES 194/70) a Study Group was set up to examine the multifarious aspects of education and vocational training.

At its meeting on 30 June 1971 (Doc. R/CES 441/71) the Study Group adopted a framework for drawing up the study.

The Rapporteur feels obliged to mention a difficulty encountered by everyone who participated in the preparation of the study.

If such a study is to be comprehensive, if it is to go into details and have a proper scientific basis, then it must be scientifically and methodically compiled by a research team specifically set up for that purpose. The comprehensive thorough study which we urgently require simply cannot be properly produced by people who have other jobs and who can only work on the study in their spare time. The Rapporteur and all others who took part in the work could only try to be as meticulous as possible and to do their best to provide as much data as possible within the limits which were extremely narrow from the very start.

Therefore it must be clearly stated that this study cannot under any circumstances claim to be scientifically prepared, with the guarantees that this entails. Due to the conditions under which the individual statements were collated, the study should be seen as an attempt to give a rough survey of the systems of education and vocational training and the trends and aims. Nothing more may be expected from it.

The aim must be to obtain as soon as possible from the Commission's representatives a thorough, scientifically sound document about the educational and vocational training situation in the Community. This is the only basis for drawing fundamental conclusions and taking decisive steps towards harmonization in this very important field.



**The systems of education  
and vocational training  
in the founding member countries  
of the European Community**



## FEDERAL REPUBLIC OF GERMANY

### I. — Legal bases and responsibilities

#### 1. School education

In the Federal Republic of Germany, the individual 'Länder' are responsible for culture. Accordingly they have sole jurisdiction on the subject of education. Consequently, regulations applicable to the whole of the Federal Republic can only exist on the basis of agreements between the Ministers of Public Education and Religion of the 'Länder'. The common tradition and the coordination carried out by the permanent Conference of the Ministers of Education and Religion have guaranteed up to now the conformity of the basic principles of educational policy. To this is added the fact that the 'Länder' have concluded important agreements among themselves:

- agreement between the 'Länder' of the Federal Republic with a view to the standardization of education ('Düsseldorf agreement' 17 February 1955);
- revision of the agreement between the 'Länder' of the Federal Republic with a view to standardizing education ('Hamburg agreement'—28 October 1964);
- framework convention of 29 September 1960 (of Saarbrücken) for the organization of advanced level education in schools ('Gymnasium');
- agreement on the creation of technical secondary schools (1968).

Generalized compulsory schooling exists because of the quasi total identity of the legislation of the 'Länder' on this matter. This obligation begins at the end of the sixth year; compulsory fulltime schooling lasts 9 years. Then, those who are not engaged in full-time education must follow part-time courses at a vocational school (generally up to the end of the 18th year).

#### 2. Vocational training by apprenticeship

Vocational training by apprenticeship is the subject of the law on vocational training ('Berufsbildungsgesetz'), which came into force on 1 September 1969 and is applicable to the whole of the Federal Republic. This law stipulates that the apprenticeship of young people under 18 years is only authorized for professions whose apprenticeship is recognized and for which provisions exist which are laid down by the *Minister responsible for the relevant field in agreement with the Minister of Education and Science*. These various provisions specify the practical work and knowledge to be acquired, draw up a skeleton plan for training which states the extent and the nature of this education and indicates the chronological and thematic lay-out of the training in question. The regulations relating to retraining and advanced training can also be laid down in a uniform way at federal level (the 'Bund').

Apprenticeship takes the form of a contract between the firm on the one hand and the apprentice as well as those responsible for his education on the other. The

parties commit themselves in particular through this contract to respect the provisions fixed in the regulations relating to apprenticeship.

Apprenticeship is provided by firms and by persons who fulfil the requisite conditions in the eyes of the law. The law designates the 'competent bodies' (chambers of commerce and industry, chambers of trade, for example) charged with supervising the establishment of apprenticeship systems. These bodies are themselves subject to the control of the competent ministries, at 'Länder' or 'Bund' level.

## II. — Education and vocational training in school

### 1. *Pre-school education* (from 1 to 6 years)

At this level, compulsory establishments do not yet exist. Attendance at kindergarten or nursery school, which is not yet an integral part of educational establishments is optional.

### 2. *Compulsory school age education* (from 6 to 18 years)

#### (a) **Elementary primary school** ('*Grundschule*')

The '*Grundschule*' is the first compulsory school establishment; it is common to all children. Elementary primary education lasts four years in general and six years in Hamburg, Bremen and Berlin. At the end of this level of education, the pupil has the right, without having to take a special admission procedure, to go to one of the schools which will enable him to carry on his training.

(aa) '*Schulkindergarten*' ('*school age kindergartens*' are equivalent to special classes for late beginners)

Children of school age who have not the necessary maturity to attend school can be sent to a '*Schulkindergarten*' at the request of the Head of the school, presented with the parents' consent. In most of the 'Länder', these '*Schulkindergarten*' are attached to the '*Grundschule*'. They enable children of school age but who have not yet reached the necessary maturity to catch up. The means used are sports and games, elocution exercises and functional exercises, music, drawing and representative manual work.

#### (b) **Special education** ('*Sonderschule*')

Special schools of different types take care of physically or mentally handicapped children. In recent years priority has been given to the development of these schools and opportunities for additional or alternative education have been provided by the creation of advanced re-education courses.

#### (c) **Advanced school-age establishments (general education and vocational education)**

— higher primary school ('*Hauptschule*') includes classes 5 to 9 and is compulsory for all those who are not attending another course of education. The examination at the end of the studies gives access to a series of vocational training courses. In several 'Länder' a tenth year has been introduced following an extension of the '*Hauptschule*';

- ‘*Realschule*’ (Establishment for the second degree of shorter education) includes classes 5 and 10 and provides an end of study diploma (comparable to the French BEPC) which gives access to several medium level professions which do not require university education and permits attendance at the ‘*Fachoberschule*’ (technical secondary school);
- The ‘*Gymnasium*’ (grammar school) includes classes 5 to 13. It is subdivided into a large number of sections. Most of these prepare pupils for the higher school leaving certificate (‘*Hochschulreife*’), whilst some prepare for a specialized higher school leaving certificate (‘*fachgebundene Hochschulreife*’);
- The ‘*Berufsschule*’ (vocational school) is a part-time school whose attendance lasts in general three years after compulsory full-time schooling. The ‘*Berufsschule*’, compulsory for all those who do not attend any other form of education, aims to deepen and complete the vocational training in firms;
- The ‘*Berufsfachschule*’ (specialized vocational school is equivalent to a technical college) in a full-time school which prepares students for vocational training afterwards in the firm or teaches part of a first professional qualification. Its teaching is given for one, two or three years. The certificate provided at the end of most of the two year schools is considered equal to the school leaving certificate of the ‘*Realschule*’;
- The ‘*Berufsaufbauschule*’ (school for vocational refresher courses) is attended during or after training in the firm. Full-time, the courses are generally for one year; part-time for three years. This school provides an ‘intermediate level school-leaving certificate’ (mitleren Bildungsabschluss) which gives access to secondary technical schools. It also provides general and technical training which goes beyond the aims of the simple vocational school.
- The ‘*Fachoberschule*’ (technical college) prepares for specialized upper schools. Pupils wishing to attend it must have attended an intermediate school and passed the final examination. Practical training is given in a 2 year course (generally one year on the job) plus training in theory.
- The ‘*Gesamtschule*’ (comprehensive school) is a new type of school which groups in one establishment or pedagogic course higher primary education (‘*Hauptschulen*’), shorter education (‘*Realschule*’) and grammar school education (‘*Gymnasium*’). This form of education is still at the experimental stage in several ‘*Länder*’ and only includes classes 5 to 10.

In order to enable those who have no possibility of attending full-time advanced training courses to obtain the ‘intermediate school leaving diploma’ (‘*Mitleren Bildungsabschluss*’) or the higher school leaving certificate (‘*Hochschulreife*’), there are special forms of ‘*Realschulen*’, ‘*Berufsaufbauschulen*’, ‘*Fachoberschulen*’ and grammar schools. This type of education can be attended after having obtained the certificate of professional skill, in the evening or in the daytime; this is what we call ‘parallel training’ (‘*zweiter Bildungsweg*’).

### 3. Advanced training

#### (a) ‘*Fachschulen*’ (specialized schools)

These are schools whose attendance is voluntary after the acquiring of vocational training and practical professional experience, or simply after acquiring practical

experience at work. Often the necessary condition is an educational training acquired at a 'Realschule' (shorter education) or an equivalent training. The day course lasts six months to four years. The evening classes range over longer periods proportional to the length of the day education. These schools prepare students for an intermediate level activity characterized by particular specialization. The technical schools ('Technikerschulen') which provide full-time education spread over four semesters, are also part of these schools. There are also at present 'Fachschulen' which, although being called 'Fachschulen' correspond *grosso modo* to the 'Berufsfachschulen' (vocational schools).

#### (b) 'Höhere Fachschulen'

These schools are in a transitory phase, following which most will be transformed into 'Fachhochschulen' (specialized high schools). It is aimed to integrate them into higher studies. The principal schools teach engineering science, the management and organization of firms, social teaching, social questions, organization techniques and naval science. To attend them, the student must possess the specialized higher school leaving certificate ('Fachhochschulreife'). The school leaving diploma is acquired after three years.

#### (c) 'Hochschulen'

Higher education ('Hochschulen') includes, besides the universities and higher technical schools ('Technische Hochschulen') the higher pedagogic institutes ('Pädagogische Hochschulen'), the fine arts institutes, the higher schools for physical education as well as a certain number of other scientific education establishments, recently too the specialized high schools ('Fachhochschulen') with many specialities. To be admitted to higher education it is necessary to be in possession of the general school leaving certificate or the higher school leaving certificate. The minimum duration of study's is three years.

### III. — Vocational training (especially outside the school-apprenticeship framework)

Vocational training of young people is carried out principally in the framework of the 'dual system', characterized by the association of training in the firm and school training, the first type taking up more time than the second.

#### 1. Provisions concerning apprenticeship

Provisions concerning the apprenticeship of young people must include at least the following points:

- the designation of the profession for which the apprenticeship is served;
- the length of the apprenticeship (three years maximum and two years minimum; according to the law on vocational training—'Berufsbildungsgesetz');
- practical skills and knowledge to be learned through the training;
- a note on the structure and running of the training course;
- the matters which the examination at the end of the apprenticeship will cover (criteria required).



## *2. Right to train apprentices*

The law on vocational training stipulates that only those with certain personal qualities and certain technical capacities have the right to train apprentices. The technical capacities in question imply that the person responsible for the training of apprentices possesses the practical skill and knowledge necessary in the profession, as well as the pedagogic knowledge required to teach the said profession and its technicalities.

In addition, only firms satisfying the conditions set out by the law are entitled to train apprentices. This means that by its nature and its equipment the firm must satisfy the demands of training and that the number of posts of apprenticeship must depend on that of the apprentices or the qualified labour force employed.

Firms which do not have the requisite installations however may be authorized to take apprentices if these gaps are filled by training measures outside the firm.

## *3. End of apprenticeship*

An apprenticeship which has in general lasted three years and whose contents and running have been fixed by the provisions established to this effect, finishes with an end-of-apprenticeship examination. This examination takes place before a jury instituted by the 'competent body' (for example chambers of commerce and industry, chambers of trade). An apprentice who can demonstrate that he has acquired the practical skills and knowledge fixed by the programme, receives a diploma traditionally called 'Gesellenbrief' (journeyman's certificate), 'Facharbeiterbrief' (specialized worker's certificate), or 'Kaufmannsgehilfenbrief' (commercial assistant's certificate). In the case of failure, the apprentice may prolong his apprenticeship and take the examination again (maximum twice).

## *4. Control and organization of vocational training in firms*

The 'competent body' designated by the law (the professional chambers for example) controls the running of vocational training in firms. To this end, it must appoint trainings Advisers ('Ausbildungsberater') who have as a first task to advise and check on firms providing training. The 'competent body' has a list in which all the aspects of vocational training within its competence appear.

In order to hold examinations the 'competent body' must institute juries. These include an equal number of employers and workers' delegates and at least one teacher from a vocational training school.

Each 'competent body' also institutes a vocational training committee ('Berufsbildungsausschuss') including six employers' delegates, six workers' delegates and six teachers from vocational training schools: the teachers however only have consultative status. This Committee must be informed and consulted on all important questions arising out of vocational training and it has also a power of decision on the legal dispositions which must be taken by the competent bodies. As far as the skilled worker is concerned, the cooperation of the plenary assembly of the chamber of trade is necessary.

#### *5. Vocational training committee of the 'Länder' ('Landesausschüsse für Berufsbildung')*

A vocational training committee is instituted by each 'Land' government. It is composed of an equal number of delegates of employers, workers and big administrations of the 'Land'. It must in particular encourage cooperation between vocational training at school level and vocational training provided for by the 'Berufsbildungsgesetz', and look after the interests of vocational training in the case of the reorganization and development of education.

#### *6. Federal vocational training committee ('Bundesausschuss für Berufsbildung')*

This committee is composed of six employers' and six workers' delegates. Added to this are six delegates from the 'Länder' and a delegate from the central labour services. Its task is to advise the federal government on basic questions of vocational training.

Besides the right of cooperation which is accorded to it under the law on vocational training (for example in connection with regulations and directives), it must establish criteria for the qualification of apprenticeship centres, for the putting into operation of measures relating to apprenticeship outside firms and for the orientation and control of apprenticeship centres.

In addition this committee must draw up proposals for organizing, developing and encouraging vocational training as well as advanced training and retraining.

It must work with a view to the training and advanced training of instructors and encourage collaboration between the various types of vocational training (whether it takes place inside firms, in an educational establishment or in an apprenticeship centre).

#### *7. Federal institute for research into vocational training*

An institute responsible for research into vocational training has been created under common public law. Its task is to promote vocational training through research, and, in particular, to shed light on the bases of vocational training, its content and its aims and to prepare its adaptation to technical, economic and social development.

The Central Committee ('Hauptausschuss') of the Institute is composed of five representatives of big employers' organizations and five representatives of the corresponding workers' organizations. Added to this are two representatives of the federal administration.

### **IV. — Developments and aims**

#### *1. Medium term prospects (1980)*

##### **(a) Education**

— It is probable that between now and 1975 *compulsory full-time schooling* will be prolonged by a year and will last for 10 years.

- The capacity of kindergartens and nursery schools will be increased so that the age of entry to school will ultimately be lowered from 6 to 5 years. At the same time these pre-school establishments will be integrated into the schooling system.
- The pupils in their 10th year will more and more have the facility of attending a *basic vocational class* ('Berufsgrundbildungsjahr') which will constitute the first stage of vocational training.
- Full-time school ('Ganztagsschule' i.e. schools which are open all day and not just in the morning as is often the case in Germany) are to be introduced for a trial period in the compulsory education system.
- The Comprehensive school ('Gesamtschule') will be experimented with on a broad basis until 1980 and if it proves successful will be further developed. The model systems initiated a few years ago will then have advanced far enough to allow trials—incorporating vocational training—in the second cycle.

Plans for construction and development of schools must take into account the necessity to encourage comprehensive schools in the future, if the political powers decide in favour of this type of school.

#### **(b) Vocational training - particularly outside the school framework (Apprenticeship)**

- The *present provisions relating to apprenticeship* are being revised and at the same time an effort will be made to reform vocational training by basing it on the 'basic vocational class' (Berufsgrundbildungsjahr).
- *Graduated training (Stufenausbildung)*, made possible by the law on vocational training which came into force in 1969, will be introduced *in the sectors where it will give the best results from the pedagogic point of view and at the level of training policy*.
- It is planned more and more to regroup the training for many trades in the framework of *continuous periods*. Thus the six hours weekly devoted on average to vocational courses would be regrouped either into a single annual period of 12 weeks, or in two periods of six weeks each, or in several small periods of one or two weeks, the rest of the time being set aside for apprenticeship in the firm.
- As far as this apprenticeship in the firm is concerned, the *public authorities* will determine further the *contents* and means, as well as strengthening their controls.

Apprenticeship outside firms, in public or Community training centres, are to be developed. It is needed, in view of the growing demands, to supplement the training received in the firm and to help to bring about greater equality of opportunity and improve the permeability of the whole training system.

- A greater part of the *expenditure* devoted to all training must be covered by the public budget. A governmental commission is at present studying further possibilities for financing in the job vocational training.
- The system of *advanced training* will also be considerably developed. Under the circumstances the procedure will have to be systematized and organized. Attempts should be made to encourage participation in advanced training by

the institution of training leave. This leave should quite naturally form part of permanent training because, in its absence, technical and social progress is no longer conceivable.

## 2. Long term conceptions

In the Federal Republic, a reform in depth of education is under review. The representatives of the 'Bund' and the 'Länder' meeting in a joint commission, are studying the establishment of an overall plan for the formation of a medium term budget. Discussions centred on comprehensive schools.

— *The comprehensive schools* ('Gesamtschule') will in future cover the field occupied at present by the 'Grundschule' (elementary school), by the 'Hauptschule' (higher primary school), by the 'Realschule' (shorter education), by the 'Gymnasium' (grammar school) and by all the vocational schools. Most of the pupils will therefore after 10 years study take a 'certificate of secondary education' (*Sekundarabschluss I*) which will give access to all the sections of the advanced secondary level (*Sekundarstufe II*).

This advanced secondary level, in its turn, will give access to higher studies (universities, high schools and other forms of highly specialized education), the present school leaving certificate being replaced by another certificate. The advanced secondary level will also be sanctioned by a vocational training diploma.

- Research into vocational training must determine with precision the *types of training* which are most adapted to each trade. Because of the growing importance of theoretical knowledge in most occupations it must be expected that academic training in schools, on the job and in other training centres will increase in comparison with the present situation.
- The *permeability* of the various sections between themselves must then be achieved. There must no longer be a training course leading to a dead-end.
- These aims presuppose the *integration* of general training and vocational training. This integration which is an aim of training policy, must be prepared for by a study of educational programmes.

## **BELGIUM**

### **I. — Legal bases and responsibilities**

#### *1. School education*

In Belgium education is organized by different instances: the State, the provinces, the local authorities and private persons.

Studies are sanctioned by examinations which serve as the basis for the delivery of legally recognized diplomas. However, these examinations are more and more being replaced by a system of permanent checking. The compulsory school age extends to the age of 14 years.

A fundamental law on education exists in Belgium: the law of 29 May 1959, called the 'compromise' or 'school pact' between the State and subsidized education.

The prolongation of schooling to 10 years, although acquired in fact for a large number of pupils, has not yet been laid down by the law.

At the present time, Belgian education is undergoing at all levels (from kindergarten to higher level) thorough transformations, both in its structure and in its methods and programmes.

#### *2. Vocational training and apprenticeship*

For the most part provided in school establishments, vocational training is organized according to a simple structure. School training comes under the Ministry for National Education, vocational training of adults under the Ministry for Employment and Labour. Only a small part of the training is carried out through secretariats for apprentices under the Ministry for the Middle Classes. The Higher Council for Technical Education, which groups representatives of national education, employers' and workers' organizations, helps the Ministry for National Education in questions relating to vocational training.

### **II. — Education and vocational training in school**

#### *1. Pre-school education (from 1 to 6 years), called 'nursery'*

This education, so far accessible to children aged from 3 to 6 years, has now been opened to children of 2½ years. 95 % of children aged from 2½ to 6 attend.

#### *2. Compulsory school education (from 6 to 14 years)*

##### **(a) Primary education**

This course concerns children of 6 to 12 whose educators are concerned with awakening the intelligence and bringing out aptitudes. For these basic years a

uniform programme exists giving the basis of arithmetic, of languages, of writing and the study of the surroundings. Since 1 September 1971 an experiment in revision of primary education has been in progress in a certain number of establishments. It concerns above all a new programme of mother tongue and the introduction of modern mathematics.

At the end of this course, the pupils have the choice between general secondary education and technical education.

### **(b) Secondary education**

#### *Revised education*

Since 1969 an experiment in the revision of secondary education has been in progress which has progressively spread to a considerable number of establishments and has been sanctioned by the law of 19 July 1971. This provides for three degrees each including two years of study. The basic task of each of these degrees is successively observation, orientation and determination. The first degree ends the distinction between general training—technical education.

*General training* (intermediate education from 12 to 18 years), provided in two successive levels of three years each.

The choice is between:

- classics, which is subdivided into Latin-Greek, Latin-mathematics, and Latin-sciences;
- modern studies, which are subdivided into economic and scientific sections (option mathematics and option sciences). Since 1969 a new section has been opened: natural sciences.

Between the classical and modern studies and *a fortiori* within each one of these groups, opportunities for change exist up to the end of the 4th year (age 12 to 16 years). These changes will where necessary be dependent on the passing of a reorientation examination.

At the end of intermediate education successful pupils are awarded a certificate of classics or modern studies by the school. This is confirmed by an examination board.

### **III. — Vocational training**

This is provided above all in school establishments. Direct (in firms) vocational training occupies only a very small part.

#### *Technical education* (from 12 to 18 years)

Two sorts of technical education exist: vocational education of a predominantly theoretical nature.

### *1. Vocational education*

#### **(a) Lower level (Lower secondary vocational school - from 12 to 15/16 years)**

At this level specialized workers are trained.

This education is characterized by a relatively low general level, by the limited number of hours of theoretical courses and by the predominance given to manual work. This work not only concerns the industrial trades but also artisanal activities.

#### **(b) Higher level (Higher secondary vocational school - from 15 to 18 years)**

This education allows an additional specialization to be given to young people coming from the lower cycle.

### *2. Technical education*

#### **(a) Lower level (Lower secondary technical school - 12 to 15, 16 and 17 years)**

At this level skilled workers are trained.

The vocational activities to which the various teachings gives access are extremely varied: they include practically all the sectors requiring certain theoretical knowledge.

#### **(b) Higher level (Higher secondary technical school - 15 to 18 years)**

This school trains future technicians and foremen. Those benefiting from this teaching are selected and receive quite specialized general and technical training enabling them eventually to have access to functions as assistants in research departments; they can also undertake foremen's jobs but in this case they must complete their training at the work place.

The holders of diplomas of these schools can also pursue their training—after an entrance examination—at the higher level of engineer, technician, in the other higher technical sections, and, after a 'maturity examination', university studies.

### *3. Education of middle classes*

A royal decree of 13 April 1959 has just achieved the organization of contract apprenticeships in trades under the surveillance of the Ministry for the Middle Classes:

(a) Lower level: apprenticeship (in general 4 years) at work + additional courses one day per week.

(b) Management training: 2 to 3 years.  
Work contract + courses one day per week (evening).

(c) Advanced vocational training: for established managers.  
Indefinite duration (problems of management, organization, production, etc.)

*Higher education* includes education at universities and similar establishments.

This education has been restructured by the law of 7 July 1970. This is supplemented by a certain number of decrees of execution which are about to appear.

*Special education* has been organized by a law of 6 July 1970.

#### **IV. — Developments and aims**

It would be difficult to speak of an overall policy of vocational training, or of a general education policy. We have been able to say that the basic rules dominating instruction and education in Belgium have emerged progressively in the course of the historical development of the country and reflect the current of political-religious ideas which have marked the nation's past.

Recently voted laws—law on special education (6 July 1970), law on higher education (7 July 1970), law on secondary education (19 July 1971)—have enabled Belgian education to be structured in a rational manner.

In addition there are in existence a multitude of technical establishments of all levels and all possible specializations.

This situation can be considered as a wealth and we can affirm in all probability that an adequate offer of training responds to each category of need. The extreme diversity of the institutions and sections leads in fact to affirmation that, from the geographical point of view as well as from the aspect of specializations the structure of education (technical) responds on the whole to most of the present needs. It should further be pointed out that the State devotes enormous sums of money to education; the effort is impressive; the budget for national education reached more than Bfr 72 billion in 1972.

It must be underlined that the great majority of technical schools belong to subsidized education, which has often been in a position to fill the gaps, with its advantage of greater flexibility.

It can be said that, in as much as the 'general principles for putting a common policy of vocational training into practice' are formulated in a very general way, Belgium tries to observe them. The main difficulty remains in the field of the forecast of needs (third principle) and in that of relations between the forms of vocational training and the economic sectors.



## FRANCE

### I. — Legal bases and responsibilities

#### 1. School education

Although education in France is a public service, the State does not have a monopoly. Next to the educational establishments created by the public powers exist private and free establishments created and maintained by private individuals, associations, professional organizations, industrial federations, etc.

The management of the public education establishments and the control of free education being exercised by a centralized administration under the authority of the Ministry of National Education, the organization representing professional, regional or local interests have only a very limited action in regard to the educational establishments.

Educational programmes and methods are fixed uniformly for the whole of France<sup>1</sup> and the training and recruitment of teachers in public education also follow identical conditions over the whole country.

It should be underlined that the State in France is responsible for the issue of grades and diplomas; therefore these are not (except for the engineering schools) mere school tests, but public examinations for which all pupils are allowed to enter, whether they have studied in a public or private establishment or by their own means.

Under the statute of 6 January 1959, education became by stages compulsory from 6 to 16 years.

Finally, a feature must be pointed out which does not seem to exist as such in the other Member States: the *observation cycle common to all children of 11 to 13 years*. Its aim is to give children a permanent and progressive orientation towards the education best suited for their aptitudes.

This cycle is organized as follows:

- during the first term of the first year: consolidation of elementary knowledge, advice to families at the end of term with a view to a choice between classical or modern education;
- at the end of the second year of the observation cycle: advice given to families for the orientation of their children towards four possible solutions;
- the CET (technical education college) and the preparation of a CAP (professional aptitude certificate), provided that the child is at least 14 years old;

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<sup>1</sup> Except as far as higher education is concerned: its autonomy was confirmed by the law of orientation and autonomy of 1969.

- entry into a pre-professional class of appropriate level;
- entry into a preparatory class for apprenticeship (provided the child is at least 15 years old);
- continuation of general studies in a CES (secondary school).

## 2. Vocational training

In France, vocational training is provided mainly in school establishments. Chambers of trade are responsible for training in artisanal firms. They control the contents of apprenticeship contracts and keep watch over the apprenticeship by means of inspectors.

In industry, training has more and more been put in the charge of establishments outside the firm. These schools are financed by the apprenticeship tax and by subsidies by the firms; they have an official character.

## II. — Education and vocational training in school

### 1. Pre-school education

This is provided by nursery schools and is available for all children from 3 to 6 years.

### 2. Compulsory school education (from 6 to 18 years)

#### (a) Primary education

By this we understand the elementary cycle which, concerning all children from 6 to 11 years, will give them, whatever the school establishment, the same primary elements of training.

Whilst awaiting an effective application of the laws of 16 July 1971 (see later in this report) derogations to the prolongation of school age were granted for the last time at the beginning of the school year in 1971 to pupils of at least 15 years old.

#### (b) Advanced education establishments (general education and professional education) - Secondary education

##### *First cycle*

This education concerns all children of 11 to 12 years to 15 to 16 years.

The first cycle fulfils the following requirements:

- (1) it is a course providing common subjects and options (classical, modern, practical);
- (2) it is a course aiming at the democratization of education;
- (3) a new type of establishment is being created which groups in the same place and leads in the same direction the old 'lycée' and the classes of the end of primary school;

- (4) the horizontal structure both from the organizational and the administration point of view is abrogated in favour of a general and single direction;
- (5) the polyvalent structure of the basic education establishments facilitates orientation and the acquiring of solid general knowledge;
- (6) the cycle is not 'professionalized', however the children receive technological initiation and perform educational manual work.

### *Second cycle*

This includes three years of study (second and first 'lycée', terminal).

At the end of this cycle the pupils must pass the school leaving certificate to gain access to higher education;

Several types of school leaving certificate for general education exist, namely:

- type A: philosophy, letters;
- type B: economic and social;
- type C: mathematics and physical sciences;
- type D: mathematics and natural sciences;
- type E: mathematics and technical subjects.

The second cycle also includes a preparation for the technician's school leaving certificate and the diploma for professional studies (2 years).

### **(c) Higher education**

This form of education, which is autonomous, is provided both by the universities and by the 'high schools'.

## **III. — Vocational training**

This is above all provided by vocational schools.

The following texts define the prospects for vocational training.

A. *Ordinance of 6 January 1959* which affirmed the principle of the prolongation of compulsory schooling to the age of 16 years.

This enabled a new form of schooling to be created, associating the school with the firm, namely: *the vocational education section*.

This section includes education provided in school (12 hours per week) and practical training given in the firm (28 hours per week). It will be replaced progressively by preprofessional classes of high level and preparatory classes for apprenticeship.

B. *Decree of 6 January 1959* reforming public education.

Education courses lasting two years (in principle from 15 to 17 years according to orientation) will lead to graduated training. This will be devoted to education of a concrete character raising technical training to a level corresponding to a group of trades and no longer to a determined specialization.

The sanction of these studies will be the *diploma of professional studies*.

The certificate of professional aptitude (CAP) will be maintained, but will become the sanction of a qualification or more precisely of a specialization with a view to determined job situations, by means of apprenticeship or professional courses.

This decree must be amended again to respond to the provisions of the law of 16 July 1971.

Education courses lasting two years constitute the second short cycle.

The aptitude certificate (CAP) is maintained. It is either prepared in a CET in three years from the end of the 5th class for children aged 14 and over, or by means of a contract of apprenticeship of two years from the age of 16 years. It prepares for a skilled labourer's or employee's job.

The certificate of professional education sanctions a professional training given in one year in a CET. It guarantees a specialization with a view to determined job situations.

C. *Law of 3 December 1966* of orientation and programming of vocational training.

Article 1 of this law proclaims that vocational training constitutes a national obligation; it aims at favouring the access of young people and adults to the different levels of culture and professional qualification and ensuring economic and social progress.

D. *In May 1968*, in the framework of the Grenelle agreements, it was agreed to 'study the means of ensuring with the help of the State, the normal and advanced vocational training'.

E. *Law of 30 December 1968* on vocational training continues in the framework of continuous education.

This law mainly organizes training leaves to which henceforth all wage earners will have a right, from industry, trade, agriculture and craftsmen (a special system is established for employees of the State and local authorities).

F. *On July 1970* a collective agreement of an inter-professional character was signed (national inter-professional agreement), which marked an important stage in the contractual policy. This agreement provided for:

- the individual right of access to training. Any wage earner can, for example, ask for and obtain training leave of one year every 12 years;
- the principle of the payment of *stagiaires* ;
- trade union control, which is ensured by the means of a national joint Committee, of joint employment Commissions, of 'vocational training' Commissions in firms, and of Councils for the improvement of educational establishments.

G. *Law of 16 July 1971* organizing continuous vocational training. This law abrogates the laws of 3 December 1966 and of 31 December 1968, whose provi-

sions it retains whilst supplementing them, by integrating certain of the elements of the inter-professional agreement of 9 July 1970.

The implementing provisions of these laws were adopted in December 1971 and April 1972. They provide for the imposition from 1973 on, of a semi-fiscal levy on undertakings (0.8 % of the total wages and salaries paid, gradually increasing to 2 %) which on one hand is clearly effective—it is in the interests of undertakings to spend all the money—on the other hand such levies are a relatively heavy burden for French undertakings with a large work-force.

'Technological education' enters into the general structure of education, permutations and changes of orientation being possible.

'Technological education' leads either to the level of the school leaving certificate and the technical diploma, or to preparation for the industrial and information sectors, or to preparation of the economic and social sectors.

Finally agricultural education must be mentioned.

It also appeared appropriate to reproduce the organigram of the instances of coordinated policy of vocational training and social improvement.

The laws of 16 July 1971 have created a real system of continuous training; they have also enabled a considerable reorganization of the whole training apparatus to begin, a thorough reorientation of its aims and a notable growth in its means.

The law of orientation on technological and professional education tries to create the psychological and institutional conditions for true promotion of this education: improvement in the training of teachers, equivalence of technical diplomas with the diplomas of general education; educational credit institutions enabling studies to be taken up again after a period in professional life, whilst benefiting from a salary.

#### **IV. — Developments and aims**

Since 1966 France has had institutions and instruments which enable it to promote a coordinated and concerted policy, fulfilling national aims for vocational and continuous training. In this framework the continuous training of adults is considered to have an economic and social function as important as the initial training of young people.

Noteworthy in the development of the educational system during the VIth Plan are: the maintenance of diversified channels of training in secondary and higher education; arrangement of the end of compulsory schooling to favour access to vocational training for young people who do not yet benefit from it; the preoccupation with turning to account the creation of new universities for achieving better coordination between higher education and the professional functions found at this level.

For the first time in the history of French planning, the training of men and women for carrying out an activity and the maintenance or increasing of their

level of competence have been considered as a variable development, possessing special characteristics and effects.

It appears in particular that initial or continuous vocational training must ensure a triple function:

- in the medium and long term, it contributes directly to the realization of economic progress; it will for example be the essential partner for industrialization during the VIth Plan;
- over the medium or long period, it is also, by the qualifications it creates, the new competences it gives, one of the most indispensable instruments of social advancement.
- in the short term, it permits intervention in the employment situation, in quite new conditions, to solve the problem of lack of qualification of the unemployed, whose economic consequences are manifest.

## ITALY

### I. — Legal bases and responsibilities

#### 1. School education

Freedom of education is exercised in Italy. On the legal level State institutes, legally recognized schools and private schools exist in this state. So-called 'compulsory'—primary and secondary—education, which goes from 6 to 14 years, is principally the charge of the public authorities.

School leaving examinations must be organized in conformity with the legislative provisions, the diplomas consequently have a legal value.

A State examination is compulsory for admission to certain public employments and for carrying out certain professions.

Education, whether it be public or private, is provided by schools which can be distinguished by level and by category.

The *level* concerns the succession of studies in time, whilst the *category* concerns the orientation of the studies.

#### 2. Vocational training in the firm

Vocational training is based on the following elements: 'the school', 'the extra-school provisions' and 'apprenticeship'. The vocational schools come under the Ministry of Education, the Ministry of Labour being responsible for the other measures of vocational training. Apprenticeship takes place in the firm.

### II. — Education and vocational training in school

#### 1. General education

##### (a) Primary level (from 3 to 11 years)

It includes the preparatory nursery schools (from 3 to 6 years) and the primary schools (elementary).

No differentiation in education occurs at this level where the aim is basic training by spreading basic knowledge (reading, writing and mathematics).

##### (b) Secondary level (from 11 to 19 years)

This includes:

— *Ist degree*: (11 to 14 years): this stage includes the *intermediate schools* which constitute the basis of all higher secondary schools—(technical or classical);

Latin which is taught there constitutes the common humanist basis of 'classical' higher secondary school education;

- *2nd degree*: (from 14 to 19 years): this stage includes *classical, scientific and technical education and also teacher training*.

In this connection we distinguish:

- the classical *grammar schools* which represent the traditional humanist inspired school of intermediate education. The years of study culminate in the examination of classical maturity which gives access to various university faculties;
- the *scientific grammar schools* which respond to a certain tendency to modernize the study of humanities. These studies also culminate in an examination of scientific maturity which gives access to all the university faculties;
- the *normal school* is the institution which prepares the teachers of primary level. At the end of these studies (18 years) the diploma of aptitude for teaching is issued;
- *the normal school for the teaching of methods applicable in the preparatory schools*.

A reform of studies foresees nevertheless radical changes: compulsory schooling up to 16 years; unification of higher institutes into a single grammar school carrying the various options (technical, scientific, classical, professional).

## 2. Vocational education

The system of vocational education in Italy includes four basic sectors: apprenticeship, training activity organized by the Ministry of Labour, the professional institutes, other initiatives (courses organized by other ministerial departments, by various public institutions, such as provincial associations for technical education, the chamber of trade, and courses organized by public and private organizations.

In general there are two types of training: qualified vocational training and technical training.

## III. — Vocational training

### 1. Qualified vocational training (from 14 to 17 years)

- (a) the vocational schools (agricultural, industrial, artisanal, commercial, etc.) which prepare the pupils for exercising a trade. Those with diplomas from these schools may access to the technical education institutions by passing the entrance examination;
- (b) schools of art education;
- (c) domestic science schools;
- (d) 'diurnal' courses for vocational training which enable young people (generally from 15 to 17 years) who have completed their compulsory education and are looking for their first job, to obtain free of charge, a more qualified vocational preparation.



## 2. Technical training (from 14 to 19 years)

This takes place in one of the following types of school:

- institutions of technical education (agricultural, industrial, commercial, for surveyors, for seamen); these schools prepare for jobs as works' foremen, industrial experts, agricultural work, accounting, surveying, merchant navy officer trainees, etc;
- technical institutions for women;
- institutes for 'business experts' ('periti aziendali') for foreign language correspondents;
- art academies destined to train young people for the accomplishment of original work in the field of applied arts;
- specialized schools of technology whose courses last two years (after 5 years education at a technical institute).

These schools, which were created by ministerial decree in 1968, number 7 at present: School of mechanical and electromechanical technology (Genoa); School of mechanical technology (Milan and Naples); School of chemical technology (Milan); School for technology of electronic application (Rome); School for steel and metal technology (Terni); School for mechanical technology and industrialized and prefabricated construction.

Since 1970<sup>1</sup> young people who have obtained the technical qualifications required in the institutions mentioned above can be admitted to the university faculties.

Some comments are necessary on the subject of the *four basic sectors of vocational training*.

### (a) Apprenticeship

This is a theoretical and practical type of training, acquired by courses and by work in a firm. In terms of numbers apprenticeship takes a leading place among the various types of vocational training.

According to the statistics provided by the Ministry of Labour, in 1970 there were more than 700 000 apprentices occupied in artisanal and other firms.

Law No 25 of 19 January 1955 points out that the length of the apprenticeship in no case can be more than 5 years. Additional teaching of apprentices is provided in courses financed by the Ministry of Labour and the hours devoted to this teaching are considered, to all intents and purposes, as working hours. At the end of this period of apprenticeship, the apprentices must undergo tests of skill in exercising a trade.

### (b) Training activity organized by the Ministry of Labour

Law No 264 of 29 April, and Law No 25 of 19 January 1955, state that the Ministry of Labour must promote vocational training courses for young people

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<sup>1</sup> The law of 11 December 1969, No 910 provides particularly for the liberalization of access to university for diploma holders of the Institutes of second degree secondary instruction of a duration of 5 years, as well as for those who have obtained the professional school-leaving certificate 'professional maturity', as set out under the law No 754 of 1969.

who have no jobs or for those who have no specific training and additional education courses for apprentices.

It must be underlined that all the norms which at present rule the sector of extra-school vocational training aim at:

- training courses for workers who wish to acquire a professional qualification;
- readaptation courses for workers who want to have a qualification other than that already acquired, and retraining courses;
- courses for qualification of a high professional level;
- deferred courses or advanced technical courses.

These courses numbered 15 284 during the school year 1970-71, for 279 940 pupils from industry and *artisanat*, trade and agriculture; 4 013 other courses were organized for unemployed, the disabled, the socially maladjusted, etc.

### (c) Professional institutes

These institutes represent an interesting experiment, bearing in mind the fact that the training which is provided there, under control of the Ministry of Education is of a high quality.

It must be particularly stressed in this respect that the law of 27 October 1969, No 754 ('Experimentation in the professional institutes') establishes the organization of special courses designed to accentuate the cultural content of the study programmes of the first two years, and the post diploma courses, providing the young with a cultural and practical training at the level of second degree secondary school. The law stipulates that the entry into working life must take place at the latest three months after termination for the work contract to recognize the diploma delivered by the professional institutes. Besides, the law prescribes, in an experimental manner, the creation, from the school year 1969-70 and up to the reform of secondary education of the second degree, of the following courses in these professional institutes:

- 50 special courses aimed at strengthening the cultural composition of the study programmes of the first two years of the institutes;
- 350 one, two or three year courses, organized after the obtaining of the professional qualification diploma, in order to provide young people with cultural and practical training at the level of second degree secondary school.

At the end of these courses, the participants pass a State examination to obtain a certificate of professional aptitude. This certificate is equivalent to the diploma issued by the technical institutes of the same orientation and gives access to the medium level of the public service or to university studies (cf. note below page 23).

The new ministerial programmes concerning these institutes prescribe the regrouping of the basic qualifications for industry and *artisanat* by families of trades according to the concept of 'polyvalency'; this polyvalency is not only envisaged as the potential capacity of qualified young people to operate in the framework of trades in the same family, but also as the means of adapting quickly to new situations, either due to structural changes or to changes of functions.

The professional institutes correspond to the various sectors of economic activity.

The institutes existing at present are:

- agricultural institutes;
- industry and craft institutes;
- sea trades' institutes;
- commercial institutes;
- hotel institutes;
- domestic science institutes.

In the framework of this training, each institute includes one or several professional schools which constitute technical didactic units with a view to the preparation of homogeneous related groups of activities (thus, the professional institute for industry can include a vocational school for the mechanical industry, a school for the electrical industry etc...)

Each professional school can, in turn, be subdivided into sections corresponding to determined professional profiles.

The professional schools which are situated in another place than the corresponding institute, are called 'coordinated schools' ('*scuole coordinate*').

The duration of studies in the professional institutes varies in accordance with the nature of the training and according to the section: two years for the sections of the agricultural institutes, three years for the main training provided in all the other institutes, four years for the sections of the industrial institutes which prepare for the profession of dental mechanic.

The choice of educational subjects and their distribution in the framework of the

1. The training of the first period—one year—(observation and orientation) is centred on the following two principles:
  - evaluation and development of the capacity of expression and of logic;
  - apprenticeship in practical knowledge, in languages and in technical drawing.
2. During the second year, acquisition of polyvalent practical knowledge which is at the basis of all the trades of the same family, this acquisition going together with the theoretical study of technical disciplines.
3. In the third year, the pupil specializes on a practical level with a view to a determined trade.

It should also be mentioned that exercises of technical conversation in a foreign language will henceforth appear on the programme of the first two years. They are destined not only to facilitate a possible opening in the framework of the common market, but also to promote the knowledge and consultation of foreign technical magazines, which will also serve for continuous advanced technical learning.

#### **(d) Other initiatives**

It should particularly be stated that the Institute for professional training and apprenticeship of the IRI (Institute for industrial reconstruction), runs six centres situated in Trieste, Milan, Genoa, Terni, Naples and Taranto; these centres organ-

ize, without profit, training activities for workers, technicians, medium-grade foremen; they also carry out continuous training of teachers.

On 1 January responsibility for 8 training centres run by the Cassa del Mezzogiorno was transferred to the various regions; also in 1970 there were 50 schools run by private enterprise (Fiat, Olivetti, Pirelli, etc.).

#### **IV. — Developments and aims**

If we want to try to present succinctly the broad lines of vocational training policy in Italy, we cannot fail to point out that this policy is going through a rather tormented period of development. All the political and social milieux know how inadequate is the policy of vocational training practised in this country, but one is always faced with a constitutional organization which no longer corresponds, at least not sufficiently, to the demands of a rapidly developing system.

The action of the State in this domain was formerly inspired by principles linked more to the idea of intervention by giving support than that of functional intervention in the economic and social development of the country.

Given this situation, all those who are concerned with these problems, at whatever level it might be, are aware of the necessity of closely linking this policy to the activity concerned with the planning of economic development.

The delegation to the regions of legislative power on vocational education, has been decided on by a decree of 15 January 1972, in application of the constitutional norms. Experts from the Ministry of Labour have recently drawn up a draft model law which should define the competence of the regions on the subject.

As from 1 April 1972, the regions have been competent for administrative duties concerning:

- (a) vocational training courses provided for under the law of 29 April 1949, No 264;
- (b) courses of vocational readaptation in the firm;
- (c) vocational training of craftsmen;
- (d) vocational training of apprentices, by means of supplementary education coming under the law of 19 January 1955, No 25;
- (e) vocational orientation and readaptation of the disabled;
- (f) activities of professional training and qualifications carried out up to the present time by the central or local bodies of the State.

The transfer of the powers of the State to the regions includes: the technical and administrative control of the activities of training; the granting of aid and financing for the same activities; the payment of financial aid to the craft and vocational training institutes; the construction and running of training centres, etc. The following, however, are reserved for the State: the control of the application of the social legislation; the regulation of apprenticeship; the granting of vocational qualifications in the case of recruitment; international relations (conventions, European Social Fund, vocational training of Italian workers abroad, tech-

nical assistance, etc.); the training activities carried out by the Ministry of Defence and the Ministry of Internal Affairs.

It finally seems relevant to mention certain orientations which are to be found within CNEL<sup>1</sup> and, more exactly, in the draft report No 108 (page 48): considering that :

- compulsory schooling will certainly be prolonged, shortly, to the age of 16 years;
- vocational training will probably be transferred to the regions;
- technical training should stay in the framework of secondary education since the university, it seems, is absolutely not in a position to add to the tasks which it fulfils at present (already with so much difficulty) that of training technicians;

it goes without saying that, in the framework of secondary education, a process of simplification should be set in motion which would consist in regrouping the present disciplines into homogeneous entities, founded on a single basic course with a general cultural orientation (the term 'cultural' being understood, as has already been said, in the widest possible sense).

However, in the framework of such a conception, it must be made possible for persons following the vocational training courses organized by the regions, to be able to regain their places in school education in order not to perpetuate the condition of 'inferiority' of the 'vocational training' sector, *vis-à-vis* the other sectors of secondary education.

The specific functional *rapprochement* between vocational and technical training would be particularly useful if one considers the experience gained in this respect in other countries and particularly in those which form part of the common market, like Italy.

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<sup>1</sup> Consiglio nazionale dell'economia e del lavoro (National Council of the Economy and Labour).

## GRAND DUCHY OF LUXEMBOURG

### I. — Legal bases and responsibilities

#### 1. *School education*

Education in Luxembourg is the responsibility of the Minister of Education. It is mainly organized by the State, with the assistance of local authorities in the case of junior grades and the cooperation of the appropriate chambers of trade, commerce, industry etc. in the case of vocational training. Private schools have a small role. Pupils from such schools must sit public examinations to obtain official certificates.

Under the law of 5 August 1963 on the organization of primary schools compulsory education lasts 9 years beginning at the age of six. This law has been supplemented by a law of 10 May 1968 on secondary education, the law of 16 August 1965 on intermediate education and a large number of other laws dealing with technical and vocational training, including:

- the law of 1896 on the establishment of a school for tradesmen;
- the law of 1 December 1953 on the establishment of vocational training centres;
- the law of 3 August 1958 on the establishment of an institute for technical education;
- the law of 23 November 1966 on preparatory training for paramedical occupations;
- the law of 12 November 1971 on the establishment of an institute for agricultural training.

A number of draft laws on the reform of the education system are in preparation or are already being discussed in parliament. They relate mainly to intermediate education and vocational training.

#### 2. *Vocational training (on the job)*

The Minister for Education has also been responsible for on-the-job vocational training for a considerable length of time. However the bodies who actually give the training are the chambers of trade, commerce or industry responsible for the undertaking or young trainee. Training is in part given with the cooperation of the Careers Advisory Office (Berufsberatungsamt).

Training on the job may not commence before the age of 15 (after 9 years of compulsory education has been completed).

Vocational training on the job is legally governed by:

- the law of 5 January 1929, on the training of apprentices amended by the decree issued by the Grand Duchess on 8 October 1945;

- the law of 2 July 1935 laying down how the qualification of master-tradesman and the accompanying certificate (Meistertitels and Meisterbriefes) are to be obtained;
- numerous implementing provisions.

## **II. — Education and vocational training in school**

### *1. Pre-school sector (1 to 6 years)*

From the age of 4 children can attend kindergartens run by local authorities or private bodies. In addition there are kindergartens for mentally and physically handicapped children.

### *2. Compulsory school education (6 to 15 years)*

#### *Primary school*

##### **(a) Elementary school**

During the first 6 years all children attend the basic stage of the primary schools which are run on a bi-lingual basis (German and French).

##### **(b) Supplementary courses**

Those children who have completed their first six school years successfully can, without any further interim examination, attend a supplementary course (2nd stage) for 3 more years during which they improve the knowledge which they have attained in stage 1 and also develop the abilities which determine their choice of career. Thus practical training is given in addition to general theoretical tuition.

At the end of their 9th school year children receive the school leaving certificate (Schulabgangszeugnis).

On successful completion of their 6th school year pupils may however sit an entrance examination for secondary education or intermediate and technical vocational education. After successful completion of any one year of the supplementary course able pupils can transfer to intermediate and vocational schools.

### *3. Schools for further general education*

##### **(a) Grammar school (form 12 to 19 years)**

According to the relevant law this stage of education mainly provides an intensive general education and prepares pupils for higher education. It is divided into two stages:

1. a lower stage lasting 3 years an introductory class (1st year) and 2nd and 3rd year;
2. a higher stage lasting 4 years (4th year, 5th year, lower 6th and upper 6th).

In the introductory class all children follow the same curriculum. From 2nd year on, children must choose either the latin classical stream or where English is taught

as a modern foreign language. At the end of the 3rd year an examination is held to decide whether the pupil can proceed to the next stage.

There are four alternatives in both the classical and the modern grammar schools:

- Languages;
- Mathematics;
- Science;
- Economics.

The certificate which pupils obtain if they pass this examination entitles them to attend the College of Education, university courses. If successful in his first year of study (Law of 7 July 1954, preparatory year) at university courses (Law of 18 June 1969) in the three following faculties:

- Faculty of Law and Economics;
- Faculty of Arts and associated disciplines;
- Faculty of Science;

the student may enrol in a foreign university of his choice for his second year of study.

#### *4. Schools which prepare for working life*

##### **(a) Intermediate schools**

Intermediate schools on one hand and technical or vocational schools on the other come under the category. Even now one finds that in many places both types of teaching are given in one institution. Since both mainly prepare students for occupations either in business or administration.

Under a draft law introducing a pattern which is already being experimented with in practice, intermediate education consists of a lower cycle of 3 years (12 to 15 years old) based on general tuition and a higher cycle of 2 years divided into:

- an administrative-commercial stream;
- a biological-social stream;
- a technical and industrial stream.

Pupils receive certificates at the end of both first and second cycles. The end of the first cycle coincides with the end of compulsory education. The administrative-commercial section aims at providing the economy with senior qualified office staff. The purpose of the technical and industrial section is to supply technically trained staff, where appropriate after additional further training in Luxembourg or abroad, to industry and small craft undertakings.

##### **(b) Vocational and technical schools**

Vocational and technical education is divided into full time and part-time education. The lower cycle in vocational school centres lasts 3 years. In the first year the same subjects are taught as in the first class of secondary and intermediate schools. The main subjects taught in the 2nd class (eight school year) of vocational schools are basically the same as those taught in intermediate schools but,



depending on the field chosen, there are various additional optional subjects which aim at easing the choice of career. After this 8th class students can in principle opt for any career.

In the third year (ninth school year) pupils can choose one of the—at present—13 classes which prepare them for a career.

An advanced general basic vocational tuition, orientated to the relevant specific interests, is given for a number of careers in a fourth (10th school year) and, where necessary, a fifth (11th school year) class.

Pupils who choose on-the-job craft or industrial vocational training can sign a training contract after their third vocational school year (9th school year). During their training they attend additional courses in vocational school centres where they receive technical theoretical tuition and also some general theoretical tuition (business management and law) Certificat d'Aptitudes Professionnelles (CAP) stream. Apprentices in a number of careers, who have chosen a more practically orientated training, are trained in school workshops. (Certificat de Capacité pratique (CCP) stream.)

Exceptions to this main structure are:

- (a) *the craft-technical school* with a four year course (12 to 16 years old). Some careers require an additional 2 full school years at the end of which a successful pupil becomes a qualified technician;
- (b) *School of hotel management* (Hotelfachschule) which provides a four year training in all branches of the hotel industry, after the first two years of vocational education;
- (c) *training-course for paramedical and social careers* which consists of (a) 3 preparatory years and an aptitude test after the first 2 years of vocational education (7th and 8th class) or (b) 5 years of general education (grammar school or intermediate school) followed by a 2-year in-service training period in the case of paramedical careers. (Additional tuition is provided during this in-service training and successful pupils receive an official State certificate);
- (d) *the art section of the school for arts and crafts* for which three years education at a secondary, intermediate or vocational school is a pre-requisite. The course consists of a two year theoretical and practical basic training in all arts and crafts careers, followed by a final examination. Pupils who successfully complete a third year of specialized training receive a certificate qualifying them to continue their studies at foreign Art colleges;
- (e) *the school for trade and industrial management* which provides a two year training course (12th and 13th class) for clerical workers in the middle career-bracket and confers an education qualification permitting pupils to attend certain universities. To be eligible to attend this school students must, in principle, have obtained the final year intermediate school certificate or must have five years secondary education;
- (f) *the school of engineering*: to attend this school a pupil must have also had five years general or vocational education. The course lasts 4 years and successful students become Ingenieurtechniciens (qualified engineers) who are eligible to attend certain universities.

The most recent structure of vocational education is increasingly adapting to the requirements of business life. One of the factors is that the representatives of the chambers of trade, industry and commerce are playing an active part in preparing the curricula, in inspecting the educational institutes. They also participate in decisions in cases where difficulty arises over promotion.

On the other hand, representatives of educational establishments may sit on examining boards for apprentices' final examinations, preparatory courses and final examinations for the qualification of master tradesman (Meisterprüfung).

Progress to a higher class in school depends on examinations at the end of the year, results during the school year also being taken into account. School results are also considered for the apprentices final examination.

### **III. — Vocational training (On the job)**

#### *Apprenticeship*

As has already been mentioned vocational education can start from the age of 15 in the form of an apprenticeship in a firm with accompanying or supplementary courses at vocational school. This apprenticeship requires the prior conclusion of an apprenticeship contract.

The apprenticeship contract is that by which an industrial or craft worker, a commercial worker or any other legal or physical person recognized as qualified to this effect by a vocational management chamber, is obliged to teach or to have taught the practical side of an occupation to another person.

Apprenticeship is governed by the law-decree of 8 October 1945 and is carried out under the control of the competent vocational chambers respectively for management and the apprentice. These chambers also have as a task to establish draft programmes in the framework of which the manager will ensure the education and training of the apprentice. In agreement with the Office of Professional Orientation, the chambers will fix for the various industrial, commercial and trade branches the occupations subject to apprenticeship, the compulsory duration of this as well as draft contracts of apprenticeship. The two competent chambers will also determine the maximum number of apprentices that the firms have the right to train in relation to the number of workmen or skilled workers, and they will propose the amounts of the apprenticeship allowances to be set by ministerial decree.

According to the sectors and the occupations, the duration of apprenticeship varies between two and three-and-a-half years. For apprentices in trade having successfully attended the last full year of technical and vocational school, the duration of the apprenticeship is reduced to half a year.

The control of apprenticeship is made by the competent chambers to management and apprentice respectively. Thus, the apprentices are obliged to hold apprenticeship cards and to attend control tests when called upon to do so.

At the end of his apprenticeship, the apprentice must take an end of apprenticeship examination.

A dual system of apprenticeship is planned as an experiment for several trades. This system is intended to raise the level of vocationally-orientated school training, by allowing more practically gifted pupils to take an examination which stresses practical aptitudes. In one case stress is placed on general and vocationally orientated theory (CAP stream) and in the other more attention is paid to on-the-job training linked with practical instruction in schools (CCP stream). This results in a longer training period.

#### **IV. — Developments and aims**

The reforms currently taking place in the field of vocational training will have a certain coordinating effect on training schools, which previously was very heterogeneous. Furthermore they improve cooperation between schools and undertakings in those careers for which a dual training system is retained. Simultaneously the following aims in training are being pursued:

*(a) Improved vocational mobility:*

- (1) by wide basic vocational training in the lower cycles of vocational and intermediate schools;
- (2) wide vocational training in technical careers; shorter training time in the case of a change over to similar careers;

*(b) increased equality of opportunity in respect of admission to training by:*

- (1) methodical geographical distribution of training institutes;
- (2) the introduction of specific courses and appropriate certificates geared to individual capabilities;
- (3) the introduction of free training, the gradual general introduction of free supplies and equipment necessary for training, free transport to and from school;
- (4) the development of introductory classes for foreigners and allowance for language difficulties in normal instruction.

*(c) increased possibility of transfer within the systems of education and vocational training*

This is intended to allow young people and adults to transfer more easily from one field to another or from one vocational training system to another;

*(d) development of crash adult and further training courses*

A centre has been set up recently for crash adult training courses for foreign workers. It is also used for further training in trades in the building industry.

## NETHERLANDS

### I. — Legal bases and responsibilities

#### 1. School education

Some countries have resolved the problem of basic education by extending the period of general education. However in the Netherlands a number of schools has emerged which are geared to the pupils' aptitudes and interests. These schools also meet the requirements of a broad general education.

Education in the Netherlands is governed by two important Acts: the 1920 Primary Education act (*wet op lager onderwijs*) (now being revised), which covers nursery and elementary education and the Secondary and Further Education Act (*wet op het voortgezet onderwijs (WVO)*) also known as the Mammoth Act which came into force on 1 August 1968.

In the Netherlands there is both a State system and a private system. The latter is often denominational (RC and Protestant). The sector is clearly predominant in the field of technical education.

The syllabus is determined by the Ministry of Education. Schools are inspected by the Ministry, so certificates issued by private schools have the same value as those issued by State schools.

Normally compulsory education begins as soon as the child reaches the age of six and ends:

- either after 9 years full-time education and 2 years part-time education, or alternatively after 1 years full-time education;
- after ten years full-time education and one years part-time education;
- or when the pupil reaches the age of 17 and has completed his current course.

#### 2. Apprenticeship

The Department for Education and Science is responsible for training in schools. It is responsible for preparing the appropriate draft laws—and at a later stage—for implementing them. At the moment the Department is assisted by an 'Education Council' (*onderwijsraad*).

The Apprenticeship Act (*Wet op het leerlingswezen*) governs the training of apprentices. It came into force on 1 August 1968 at the same time as the new Secondary and Further Education Act. It lays down the division of responsibilities between national and regional authorities. Regional authorities are responsible for social and pedagogical matters and the national authorities for technical matters in connection with occupations or groups of occupations.

## II. — Education and vocational training in school

### 1. Pre-school sector (4 to 6 years)

Children attend nursery schools from the age of 4 to the age of 6. Although attendance is not compulsory 80 to 90 % of children attend nursery school classes for 1 or 2 years. Pre-school education is almost totally State-financed though parents must make a contribution towards the cost of this education according to their income.

### 2. Compulsory education

#### A. Elementary education

Elementary education begins after nursery school education and provides basic knowledge for the children from the age of 6 to the age of 12. It is completely State financed. Parents do not have to pay anything to the State though admittedly private schools often make a charge for special facilities.

#### B. Secondary education

Secondary education takes the form of (1) general secondary education or (2) vocational training (See III).

(a) Lower general secondary education (Lager algemeen voortgezet onderwijs (LAVO))

This type of education is given after elementary education in the first two years of lower vocational training (see relevant passage). In a few cases there are separate lower general secondary schools which link up with the higher classes of lower vocational training.

(b) Intermediate general secondary education (Middelbaar algemeen voortgezet onderwijs (MAVO)) (3 to 4 years).

(c) Higher general secondary education (Hogere algemeen voortgezet onderwijs (HAVO)) (5 years)

Higher general secondary education (HAVO) is provided for pupils from the age of 12 to the age of 17. It closely resembles corresponding classes in grammar schools (see (d) below). While at the relevant schools, pupils can choose the subjects which they wish to take for their final examinations. Their choice decides what type of intermediate and higher vocational school they will eventually qualify for.

(d) Grammar school education (Voorbereidend wetenschappelijk onderwijs (VWO)) (12 to 18 years)

The following types of school exist:

— The Atheneum (formerly Hogere Burgerschool) which corresponds to the so-called 'modern' grammar schools in other countries. The pupil can choose to spend the last 2 years of the 6-year course in either Stream A (modern languages and economics) or stream B (maths/science);

- the 'Gymnasium' which is broadly equivalent to the 'classical' grammar school in other countries. Here the pupil spends the last two years of the six year course in Stream A (Latin, Greek, one modern language and social science subjects) or in Stream B (Latin or Greek, one modern language and science/mathematics).

### *Comment*

The Secondary education Act contains provisions for a new type of school structure, the comprehensive school (scholengemeenschap). This amalgamation of various post-primary schools has developed rapidly since 1968. At present there are many comprehensive schools composed of MAVO + LAVO + Atheneum and Gymnasium; for MAVO + HAVO; for LAVO + MAVO and HAVO. The advantage of having these various types of school within one organization is that it makes it easier for pupils to transfer from one type of school to another.

### **III. — Vocational training**

There are various types of institutions for vocational training:

(a) — technical colleges,

- colleges of domestic science and home economy,

- Agricultural colleges,

- 'Small business' colleges (Middenstand onderwijs),

- Colleges of economics and administration,

- Colleges of Education,

- Social science colleges,

- Colleges of art.

(b) In the case of most of these types the secondary and further Education Act (de Wet op Voortgezet Onderwijs) requires a distinction to be made between basic intermediate and advanced vocational training. The criterion chosen is the previous minimum training necessary to allow the student to follow the course successfully. Completed primary education is a prerequisite for basic vocational training, completed intermediate secondary education (MAVO) (or basic vocational training) is required for intermediate vocational training, completed higher education (HAVO) (or completed higher secondary education (HAVO) (or completed intermediate vocational training) is necessary for advanced vocational training.

The maximum length of basic, intermediate and advanced vocational training courses is four years.

(c) Technical colleges are colleges which prepare pupils for technical occupations. These include: junior technical colleges, intermediate technical colleges and senior technical colleges.

(d) Lower technical colleges (12 to 15 years)

These colleges provide preparatory training for future occupations. The first and second years are regarded both as an extension of elementary education (LAVO) and a preparation for vocational training.

In the third year tuition is given depending on the type of college, in one of the following fields:

- building industry,
- catering techniques,
- the motor trade,
- electrical trades,
- printing trades,
- installation techniques,
- mechanics.

In their fourth year pupils receive more advanced training which takes into account the occupation they have chosen. This advanced training is governed by the Apprenticeship Act of 1 August 1968 (Wet op het leerlingswezen). In 1969 70 694 apprentices took advantage of the possibility for further industrial training provided by the Act.

(e) The intermediate technical colleges (15 to 18 years)

Trainee technicians follow a four-year course here, including one practical year. After supplementary on-the-job training they take up staff and supervisory jobs in undertakings, drawing offices etc.

(f) Higher technical colleges

The level of tuition given in these establishments is somewhere between that given in intermediate technical colleges and in university-level colleges of technology or polytechnics. Courses last four years i.e. two years at the college, one practical year on the job and a final examination year at the college.

Students who pass the final examinations of these colleges are awarded the title of 'ingenieur'. Students are trained to carry out senior technical functions in undertakings in the fields of production, construction, work planning and research.

(g) The domestic science colleges provide a general practical training in domestic science and home management (town and country) and also in health work and other occupations. This category includes elementary domestic science colleges, agricultural domestic science colleges, and MNO elementary and intermediate domestic colleges for girls.

(h) The agricultural colleges provide training for occupations in the agricultural sector, that is to say the various types of soil cultivation, agricultural activities and agricultural technology. There are lower, intermediate and higher Agricultural Colleges.

(i) The 'small business' colleges (Middenstandonderwijs) train students for self-employed occupations in the crafts, commerce and services sector. There are

lower and intermediate small business colleges. The majority of these are lower and intermediate retail trade colleges.

In addition to providing full-time education (1970, approximately 11 000 students) small business colleges provide part-time courses for large numbers of 18 to 30-year olds. (Approximately 45 000 students.) These courses are held on 1 day or 2 to 3 evenings per week and last 1 to 2 years.

(j) *Colleges of economics and administration* provide training for occupations in business and administration. Commercial schools are included in this group. There are lower, intermediate and higher colleges of economics and administration.

(k) *Colleges of education*: these include institutions which provide training for nursery school teachers, primary teachers and secondary teachers respectively. Nowadays (in the Netherlands) they are often called 'Pedagogische Academies' and provide intermediate nursery school or higher training.

Secondary teacher training colleges provide courses for teachers of domestic science and home economics and also for intermediate school teachers where this is not provided by universities.

The social science colleges train staff for occupations in the field of youth work, social work, social institutions in industry and administration, health work, sport and other occupations in the social sector. Intermediate and higher colleges exist in this sector.

The colleges of art provide training in the various fields of art and crafts. Up to 1968 there were no legal regulations governing most of these colleges. Intermediate and advanced training is given on the basis of entry qualifications and the type of training.

Finally there are—on one or two days per week—general education courses for those young people who have started work but under Dutch law are still required to attend school on a part-time basis.

#### **IV. — Developments and aims**

The Secondary and Further Education Act (*Wet op voortgezet onderwijs*) of 1 August 1968 has provided new opportunities for subsidized vocational training. Dutch legislators had five basic aims:

- (a) During post-primary education general basic knowledge should be expanded, and broadened. Courses should be geared to the aptitudes and interests of pupils, e.g. by the introduction of optional subjects. At the same time the pupils' probable choice of career must be taken into account.
- (b) After elementary education, each pupil should have the opportunity of obtaining a general secondary education and vocational training, both of which should as far as possible be geared to his aptitudes and capabilities.
- (c) A period of general secondary education should precede vocational training.



- (d) The point at which vocational training predominates in secondary education should depend on the pupils' ability. In general the more gifted the pupils the later the transition should be.
- (e) The structure of secondary education should allow horizontal and vertical transfers.

Dutch legislators feel that the vocational training system *should not train* for a specific occupation or group of occupations, in the sense that the holder of a certificate is already fully qualified, i.e. can do the relevant job in practice. Vocational training aims at giving a general preparation which is indeed orientated towards a career (or group of careers). However it merely lays a foundation for later training and specialization which can be developed by and during working life.

Colleges of education, which include training colleges for vocational teachers, have a special legal position. Day colleges have been established where students obtain practical pedagogical and educational training. However, most of this training is still done in evening classes.

A new Apprenticeship Act (*Wet op het leerlingswezen*) came into force at the same time as the Secondary and Further Education Act.

Under this Act apprentices are to receive, according to their apprenticeship contract, a practical on the job training for a specific career and a general school education geared to their career. This apprenticeship agreement does not cover workers attending the general education courses referred to at the end of the section on vocational training.

#### *Medium term trends in the Netherlands*

- (1) Continuing development of general post-primary education of varying kinds depending on students capabilities and interest.
- (2) The introduction of 3 to 4-year integrated general post-primary education (intermediate) school for all young people.
- (3) Choice of course of study or vocational training at age 16 or older instead of at 12, as was formerly the case.
- (4) Opportunity for under eighteen year olds already working in an undertaking to attend courses in educational and training institutes on one or more days per week and a consequent decrease in the amount of work which can be done by this age group.
- (5) Promotion of the development of participation education.
- (6) Integration of advanced vocational training and scientific education.
- (7) Integration of pre-school and elementary education.

## **SUMMARY**

The differences between the systems of education and vocational training in the Member States are so great that it is extremely difficult to make a comparative study of the systems in a summary. Furthermore various efforts have been made in the Community in recent years to reform national general education and vocational training and these efforts are still in progress.

To all appearances these reforms have obviously not brought about any fundamental improvement, for reasons connected in some cases with the special situation in each country. Despite the efforts which Governments were willing to make to offset the drawbacks of what are sometimes complex structures it certainly cannot be said that education systems have been adapted to the continuous changes which are taking place with increasing rapidity in society.

In view of the process of Community integration it would be wrong to go on studying educational matters from a purely national viewpoint.

For instance the following measures would contribute to a concerted approach to the matter:

- the founding of a European University;
- the very urgently needed implementation of a programme providing for mutual recognition of diplomas, certificates etc.;
- and comparative study of the vocational training systems.

National objectives and trends must be gradually altered so as to take into account present conditions in the Community, e.g. freedom of movement.

The necessity for this is all the more obvious since the 'responsible authorities' are not doing enough in the field of mutual information. Only a thorough knowledge of the systems of education and the tendencies which they have to develop along sometimes diverging—if not totally opposing lines—will fully bring home the necessity for a medium-term educational and vocational training policy. With the help of such a policy the problems of life in a society which is largely dominated by economic requirements can be overcome in a humanitarian and social manner.

### **I. — Legal bases and responsibilities**

School and university education is largely State-controlled in all Member States. The State generally reserves the right to award diplomas and certificates and to confer degrees.

The State is usually responsible for organizing vocational training programmes, while in all Member States local authorities, public bodies and representatives of professional bodies and trade union organizations are involved in the administra-

tion and implementation of these programmes. In many States, Church and family representatives are also involved.

## **II. — Education and vocational training in school**

### *1. Pre-school education*

All Member States have nursery schools for children under the age of 6 (age at which compulsory education begins). In general children may attend them from the age of 3 (2½ in Belgium). Attendance is not compulsory.

Note should be taken of the special initiatives taken in Luxembourg (nursery schools for physically or mentally handicapped children) and in the Federal Republic of Germany (where remedial classes exist for children who are of school age but are still not sufficiently mentally mature to attend normal classes.

### *2. School education*

#### **(a) Compulsory education**

The length of compulsory education varies from 8 years in Italy and Belgium, 9 years in Germany, Luxembourg and the Netherlands to 10 years in France.

The present situation in Italy poses a serious problem since young people may not start work before the age of 15, with the result that there is a 12 month gap between the time they leave school and the time they begin work.

Moreover in the Federal Republic of Germany part-time education is compulsory to the age of 18. That is to say, up to the age of 18 everybody must during the period of part-time education attend either part-time school courses (vocational school) or a full-time school.

#### **(b) Primary education**

Children attend primary schools, the first stage of compulsory education in all Member States, from the age of 6.

The length of primary education varies: 4 years in the Federal Republic of Germany (6 years in Hamburg, Bremen and Berlin), 5 years in France and Italy, 6 years in Belgium and the Netherlands, and 9 years in Luxembourg (in fact the last three years in Luxembourg are only supplementary classes—second cycle—after which pupils receive a school leaving certificate.

#### **(c) Secondary education**

The differences in systems of education are most obvious in the secondary stage.

Italy, Belgium and France have two parallel systems. It is possible to transfer from one to the other at the end of the first cycle: furthermore an orientation system exists in France which allows transfer from one stream to another throughout the entire period of secondary education.

There are even greater differences in the Federal Republic of Germany since secondary education is divided up between a Hauptschule, i.e. schools for lower general secondary education comparable to those in Luxembourg and the Netherlands; a Realschule, i.e. a second cycle of short education (comparable to 3 or 4 years of MAVO) at the end of which successful pupils receive a secondary school certificate; a Gymnasium which as in France and Italy prepares pupils for general and specialized final examinations leading to university (or similar higher education entrance qualifications) and full-time and part-time vocational schools.

The educational systems in the Netherlands and Luxembourg closely resemble the German system. In the Netherlands there are two secondary education streams both lasting six years: the modern 'atheneum' and the classical 'gymnasium'. In Luxembourg the first year is an orientation class, the second is divided into two streams (classical and modern). At the end of the third year an examination is held. Successful pupils may proceed to a fourth year in which four options are offered (languages, mathematics, science, economics).

#### **(d) Special schools**

The number of special schools or special classes for physically or mentally handicapped children is continuously increasing in all Member States.

#### **(e) Comprehensive schools**

At the moment 'comprehensive' schools (Gesamtschule) are being developed in the Netherlands and the Federal Republic of Germany. They consist of one educational establishment in which first and second cycle secondary schools and grammar schools are combined.

In Belgium a reform of education has been experimented with recently (secondary education is subdivided into three 2 year cycles—observation, orientation and choice).

In addition certain types of vocational training are given on an experimental basis in comprehensive schools in Germany and France.

In this context a very constructive Community initiative should be mentioned, i.e. the European School. It was established at the same time as the High Authority of the ECSC and has been in operation in various European cities for 20 years.

Children of officials of the European Communities attend this school. It is comprehensive and provides multilingual education, a factor which makes for integration.

### **3. Vocational training**

A study of the situation in the original Member States reveals that the amount of full time vocational training in schools is steadily increasing and in the structure of the education system is gaining ground in comparison with general instruction. On-the-job vocational training is all the time being further developed in areas where it plays an important role.

The Federal Republic of Germany and Italy are the countries in which the least amount of full-time training in the industrial and technical sector is given in

schools. In these countries on-the-job training is more highly developed than in the other Member States. Belgium is a special case—there is less on-the-job training, and vocational training is mainly given in vocational schools.

Due to increasingly rapid technological development and the growing number of new occupations for which there is no traditional training such as apprenticeship, new types of vocational training must be introduced; it is generally recognized that it is essential to provide a broader basic training.

This need is also felt in countries where on-the-job training is still the most common form of vocational training and efforts are being made in undertakings to fill the gaps in general education which are associated with this type of training.

#### *4. Technical colleges*

In France technical education is given at the same level as general education. At any level pupils may start working life when they have been awarded a diploma, or they may transfer to general education. This is also the case in Belgium, Luxembourg and the Netherlands.

There are also some schools in the Federal Republic of Germany which pupils can attend as an alternative to compulsory vocational schools. They provide highly specialized education and are open to pupils who have passed the final examination in a Realschule or have similar qualifications.

Vocational schools with similar aims were recently introduced in Italy.

In Italy a distinction is made between qualified vocational training which is given in vocational schools and recently introduced technological training.

#### *5. Access to higher education*

Up to a few years ago prospective students had to pass a general technical school-leaving certificate examination to qualify for university entrance in the Member States. However this is no longer the case in many States, where young people and adults can obtain equivalent certificates which allow them to attend certain types of university level institutions where they can take final examinations in the appropriate field. In Italy for example all certificates awarded by recognized vocational and technical colleges automatically qualify the holders for university level education in the appropriate field.

### **III. — Vocational training**

In the Member States of the Community, vocational training in the firm is the subject of different regulations.

In the Federal Republic of Germany, vocational training is mainly provided in the framework of the dualist system (training in the firm and at school); however, apprenticeship in the firm predominates. The dualist system is also practised in Belgium, where training in the firm is however less important; general education

is only given there one hour per week. In Luxembourg, as in Germany, apprenticeship is carried out above all within the firm.

In the Netherlands, the apprentice receives, on the basis of a contract apprenticeship, a practical training for a given occupation and a general training geared to that occupation.

In France, the vocational training is mainly in school, whilst the part of the apprenticeship which is carried out at the work place is generally of short duration. New regulations on further training are however implemented in undertakings or by committees outside undertakings.

It is above all in Italy that the training of apprentices is numerically very important, but from the point of view of quality this training does not in general correspond to the present needs, above all because the number of hours devoted to education is very limited and because training within the firm also only bears a relative importance, the apprentice in general doing a normal job and therefore not benefiting from a training in the true sense of the term.

## CONCLUSIONS

In the countries of the Community, education and vocational training is founded on different conditions of social, economic and technological development, which leads to a divergent structure. It is evident that in practice increasing importance is being attached throughout the entire education system to equality of educational opportunity, i.e. the implementation of the guarantee of equal educational opportunities for everyone, bearing in mind that people have different talents. This is due to the growing tendency to integrate or to achieve better coordination between general education and vocational training and to incorporate them in State-run education systems. This tendency is the stronger the higher the qualification arising from the education. Whilst different countries have already largely integrated the systems of general education or considerably strengthened their efforts at integration, the level of vocational education is not yet fixed in a comparable manner everywhere. Nevertheless, agreement is unanimous to defend the principles set out hereunder and to aim to realize them:

- development and strengthening of the theoretical content of education by limiting the production work still often demanded of young people and carried out by them, in as much as this work does not contribute to advancing the training;
- examination of training which is currently purely theoretical with a view to supplementing it by practical periods;
- development of the bases of qualification in order to arrive at the flexibility and mobility necessary for the labour force;
- training of a pedagogic, methodical and concentrated nature, to enable the student to acquire during the same period of training or even during a shorter period more practical skill more qualifications, more extensive knowledge and thus achieve a more satisfying higher technical, theoretical and practical level;
- making compulsory a preparation for working life for all young people during the last years of compulsory schooling, particularly in the framework of the prolongation of compulsory schooling; in order to guarantee that young people do not begin working life without vocational preparation;
- optimal encouragement of the talents and interests by the introduction of the necessary concepts and measures in the framework of the whole education system, so as to permit 'permanent education' which has become essential.

It is in the development of technical education that efforts to organize vocational education as an integral part of the State education system are the most marked. The orientation of public education is about the same in all the countries. Technical education, whose existence is founded on the social, economic and technical needs of society, shows precisely the necessity to arrive at systems of training integrating general and vocational education destined for young people and adults. These systems of education, in their compactness, must give every human being the possibility of enjoying his rights to equality of opportunity by fully exploiting his capacities and tastes.

Finally, the level of vocational training can be considered and appreciated only in the framework of general education.

'The demands formulated in the Community concerning free movement of labour, recognition of diplomas, etc. will be intractable as long as the harmonization of educational *content and objectives* has not become a reality. This is one of the essential conditions of social, economic and political harmonization'.

To finally achieve the results demanded in these domains, basic centralized research must be undertaken without delay. The present methods of working and the results achieved thanks to them have often not resulted in any harmonization; their application has been on an isolated basis and consequently irrational; it has thus lacked efficacy in the sense of the demands formulated and has not borne fruit.

At the first Session of the Ministers of Education of 16 November 1971, the necessity for scientific cooperation was confirmed by the proposal aimed at the creation of a European Education Centre. We must demand and promote in a similar way the institute for training and professional orientation, the need for which has been underlined and outlined in this study. In this regard a common organization or at least coordinated research work must be guaranteed.

It should no longer happen in the Community that social progress should more or less be a simple product of the accidents of economic policy. They must be given the basis, the importance and the impact suited to them, through a harmonized education policy, including, of course vocational training and further training.



## **EUROPEAN INSTITUTE FOR VOCATIONAL TRAINING AND GUIDANCE**

On 26 July 1971, at its 162nd session, the Council approved:

- ‘general orientations for drawing up a programme of activities at Community level concerning vocational training’;
- as well as an appendix concerning ‘the conclusions of the Council on vocational training of adults as one of the means towards an active employment policy’.

The tasks which arise from it for the Community necessitate again supporting the proposal issued by the Economic and Social Committee of 4 February 1970, with a view to the creation of a European Institute for Scientific Studies and Vocational Training. Only a central institution of this sort will be able to assemble the basic scientific material necessary to enable the consultative instances and the authorities to draw the necessary conclusions and take decisions with a view to the practical harmonization of education and training systems for young people and adults.

Although the European Institute could certainly not carry out independent research, its main task in the initial stages would be to coordinate research projects of various national and international institutions for education and vocational training and to ensure that the results of such projects were disseminated throughout the Community. Initially the Institute would also have the task of allocating essential research projects to existing scientific institutes. Close cooperation with international centres which already exist, such as the International Labour Organization’s ‘Centre for Further Vocational and Technical Training’ in Turin, should be given particular consideration. Furthermore a time schedule and financing plan should be prepared for the development of the European Institute, using experience gained by the national institutions. The plan should be submitted to the Commission.

The European Institute should have at its disposal a committee in which relevant economic and social partners would be represented. This body would be concerned with demands which education and vocational training of young people must satisfy.

The activities of the Institute are set out in the following proposal.

### **I. — Proposals aimed at the creation of a ‘European Institute for Vocational Training and Guidance’**

Research on vocational training still being at the present day largely at the inventory stage, the European Institute must also have as its principal provisional task, the establishment of such an inventory, especially since, in this domain, the

national institutions have until now done insufficient work. The tasks thus fixed should respect the following general aims:

1. Exchange of the results of research (in this regard particular importance must be placed on the suppression of the present linguistic barriers, which could be achieved by the publication of brief reports on the important works published in different countries).
2. Uniformization of terminology.
3. Uniformization of statistics on vocational training.
4. Organization of a European information system.
5. Global and detailed comparison of the systems of vocational training of the European countries, since experience has shown that in the national institutions international comparison only plays a marginal role.
6. Filling in gaps in research by allocation of appropriate research projects to national institutes.

II. The primary implication of this list is that the European Institute must stress the *organization of research* without renouncing basic research itself. Its primordial activity (*the coordination of research*) will take place according to its *own* fundamental criteria (see above).

### III. — Coordination of research on vocational training, vocational development and vocational guidance

7. Comparative analysis of the relations existing between economic growth and the development of employment (at global and sectoral level).
8. Comparative research into economic situations with a special study of the national employment markets.
9. Comparative analysis of technical development and its consequences on the employment market (European).
10. Research on the contents of professions, on their relationship and on the changes which they will undergo in the perspective of the process of European integration.
11. Research on the structure and efficacy of vocational guidance in the different countries.

### IV. — Coordination of research in the perspective of a pioneering «differential» research

#### A. Comparison and analyses

12. Analysis of recent methods and procedures of vocational training which are applied in the various countries or vocational guidance bodies, taking into account the various teaching means.
13. Comparative analysis of the budget of the vocational schools for the purchasing of teaching material (the resources of these schools should be considerably increased if one wants to reduce the gap which separates the industrial training centres from general education).

14. Analysis of the differences in the aims assigned and in the carrying out of reforms in the various countries—comparison between countries.
15. Analysis of national research in national vocational training, as an element of national practice of vocational training.
16. Examination of the conditions of the introduction into the vocational training systems of other European countries, particularly innovatory national social reforms (analyses, synopsis, aims and proposals).
17. Comparison of the respective costs of vocational training inside and outside the firm (approaches to an acquittable division of the costs and examination of the semi-fiscal levies already imposed in some countries to see if further harmonization is called for, with particular attention to the relative competitiveness of undertakings in various countries).
18. Analysis of the differences existing in the training of senior teachers (training of personnel necessary in view of the lack of teachers and improvement of the training of instructors—there is a lack of socio-political orientation going beyond the framework of technical speciality).
19. Analysis of vocational courses by correspondence in each country.
20. Control of the conditions of training of vocational advisers and fixing of the basic conditions which the candidates for a job in the employment services and the vocational guidance services must satisfy; drawing up of basic principles and models with a view to renewing the training of vocational advisers.
21. Comparative analysis of the influence of school systems and of the content of education on the choice of career (there is a lack of research work on the 'process of choosing a career'.
22. Control of 'equality of opportunity' for foreign children in the field of intensive courses, preparatory classes, etc. to create the conditions necessary for choosing a career (on approximately equal bases).

#### *B. Models*

23. Scientific study of the measures which, from the European point of view, are of considerable importance in the fields of vocational guidance, vocational training, advanced training, re-education and readaptation, as well as training and advanced training of teachers and instructors.

#### **V. — Coordination of research with a view to the harmonization of systems**

24. Development of a strategy with a view to the adaptation of the national systems of vocational training to each other:
  - (a) analysis and synopsis of the cycles of vocational training; (method-content-structure-organization);
  - (b) analysis and synopsis of the 'system of selection' (final examinations, selection, prospects);
  - (c) elaboration of proposals and models with a view to the harmonization and pursuance of the development of structures and the content of vocational guidance and of training;

- (d) elaboration of bases and models serving for the creation of a 'system of integrated training' at European level (integration of 'general' and 'vocational' training);
- (e) definition of common programmes and objectives for Europe, in vocational training: coordination of the curriculum.

VI. A detailed programme of research and a time schedule and financing plan for the years ahead should be drawn up when taking stock in the first few years. Specific research themes must be developed in common and taking into account the European objectives and problems arising from the inventory. These themes must be defined in close collaboration with the national bodies and institutes.

VII. As general research on vocational training is still at the stage of elaboration and development, a flexible internal organization must therefore also be allowed for. The themes could be distributed as follows:

- research on European structures,
- research on curricula,
- research on training,
- research on vocational guidance,
- research on adult training,
- research on teaching methods,
- research on the employment market and professions.

The real research work must be realized in groups dealing with determined projects and composed of collaborators from different sectors according to the project concerned. In this way it will be possible to achieve a meeting of the different project groups bearing in mind the elements common to several disciplines, and this is in a true spirit of cooperation.

The aim of each project should not necessarily be to publish the result of its work. It can, for example, also have as an aim the rational distribution of work, the development of models and experiences, or assistance on the scientific level.

In addition, or prior to the project work, working conferences must be organized with the participation of scientists and people with practical experience in the different countries.

At all stages an examination must also be made of the documentation already in existence in the various member countries, including in it the work of the ILO and the OECD and other international organizations, and close collaboration must be ensured with the national bodies and institutions.

It would be desirable to publish regularly a reference work destined to inform about the supra-regional possibilities of education. At the same time public opinion could be informed of the financial possibilities available for development, of the new teaching experiments and of new laws.

## **CONCLUSIONS**

The reform of education and of vocational training is a long term task, constantly challenging the profession. The European Institute will be able to present, due to its coordination of research, abundant and valuable facts on a number of sectors of vocational training.

If it is possible to create in the near future a European Institute for training and vocational guidance, a market of clear and objective information will be available; a phenomenon of 'Europeanization' will be set off thanks to the possibility of developing a reciprocal adaptation strategy of the national vocational training systems; finally, the differences between vocational training in the firm and vocational education will be eliminated.

The systematic and thorough research on vocational training, such as must be undertaken by the European Institute, is an instrument of continuous reform of vocational training. To this is added the strong impulse which the Institute can give to the modernization of European training policy, due to the drawing up of models and programmes and the exchange of the results of research.

The Economic and Social Committee unanimously adopted this Study and the Annex thereto, on 13 December 1973, under Article 45 of the Rules of Procedure.



**The systems of education  
and vocational training  
in the new member countries  
of the European Community**





## UNITED KINGDOM (England and Wales)

### I. — Legal bases and competences

#### 1. School education

In England and Wales, the central authority for education is the Department of Education and Science.

The basis of the English education lies within the 'Butler' Act of 1944 which led to sweeping educational reforms and a re-examination of the denominational problem.

It is the duty of the Secretary of State for Education and Science (or Minister of Education until 1964) to promote the education and the progressive development of its institutions. Thus, the responsibility of the Departments lies with the determination and application of major policies at the primary, secondary and advanced educational levels. The Departments, furthermore, set minimum standards of educational provisions yet have no competence in directing schools nor employing teachers.

The Education Act of 1944 charges the Secretary of State with the duty 'to secure the effective execution, by local authorities under his control ,... ' thus, he has, on paper almost absolute powers. Yet, on the whole, prime responsibility lies with the locally-elected Councils of Cities, Counties and County Boroughs. This close cooperation with local authorities (163) is practical politics.

Curriculum matters are handled generally by the school governors and head teachers of each institution.

The influence of central government is exercised through control of costs—as with the school-building programme or teacher-training placement, and disbursement of government funds on the basis of detailed estimates.

The Secretary of State for Education and Science makes his views known through documents called Circulars and Administration Memoranda. Most are non-mandatory. He is further bound by law to appoint two advisory bodies—the *Central Advisory Councils*, one for England and one for Wales. Experienced persons in education serve on these Councils and report at intervals on major issues referred to them by the Secretary of State for Education and Science. Other more specialized bodies exist dealing with the Training and Supply of Teachers, Education for Industry and Commerce.

As for the Department's supervisory role in maintaining standards and coordinating the national provisions of examinations, it delegates the former task to a *central inspectorate*, *Her Majesty's Inspectors of Schools*, and the latter to the *School Council*. There are 550 Her Majesty's Inspectors of Schools, organized on both a regional and a subject basis with responsibilities extending over most of the edu-

cational system. They are required to inspect, assess, and report on all schools; furthermore, they give advice to educational staff, and form a link between the Department of Education and Science and the local authorities and the School Council.

The School Councils for curriculum and examinations keeps under review curricula, teaching methods, and examinations in primary and secondary schools and is a force for variety and professionalism in education. It represents all major education interests and upholds the principle that each school should have the fullest measure of responsibility.

## 2. Vocational and technical education and training

Vocational training and technical education are in England and Wales part of further education, not secondary education, and have led to a complex pattern of full and part-time education, co-ordinated with training in industry. Even the 'Secondary Technical Schools' as part of the school system are far from being 'Trade Schools'. There is however the local YEO—Youth Employment Officer and the 'Youth Employment Service', an organized system of vocational guidance for pupils in the secondary schools.

Today, the vast majority of technical education takes place in colleges of further education, technical colleges or polytechnics. Each has its own governing body which includes representatives from local industry and commerce as well as college advisory committees.

At the regional level, there exists the *Regional Advisory Councils for Further Education*. There are ten for England, one for Wales and one for Scotland which operate in an advisory capacity in regard to suitability of courses and their location.

Each particular course (its method of examinations and qualifications) is planned by a group of specialists from industry and education as well as with employer and trade union representatives.

Out of this coordinating effort has grown the National *Certificate* and Diploma system where *National Joint Committees* recognize individual colleges and their specifically-prepared scheme. On the National Joint Committees serve representatives from professional institutions, industry and the education service.

But, considerable changes are now being introduced as under the National Certificates system, too many separate and specific courses were started. A broader and more basic approach in courses is needed. It is thus intended that technical and commercial education shall be administered and coordinated by two 'nationally-recognized' bodies—the Business Education Council and the Technician Education Council.

### **Industrial training**

Under the *Industrial Training Act* of 1964, it is the duty of *Industrial Training Boards* to make recommendations not only about the standard, content, and length of training for occupations in their industries, but also about further advanced education in those sectors.

They are not empowered to provide financial help or determine content of courses or set teaching standards, but are required to state which courses they feel to be most appropriate for the trainees in their industry. They may propose revisions but it is up to the appropriate education interest to take the action.

Overall, they insure that adequate training is provided at all levels of employment in the specific industrial branches. Today, there are 27 boards in existence. Each board is able to make recommendations, can impose levies on all employers to meet the cost of training and can give grants to firms with satisfactory training. Training in many industries can thus be improved but a large number of skills, such as clerical functions or those of management, are ignored as they are not peculiar to a specific industry but apply rather generally. In 1972, HM Government in a document on vocational training recognized the need for central guidance and assistances in the area of training but places the main responsibility with commercial and industrial firms. The government has proposed that an overall *National Training Agency* be set up which will operate with its own budget and will coordinate the operations of the training boards, as well as initiate new programmes.

## II. — Education and vocational training in school

Education is compulsory between the ages of 5 and 16 with some form of secondary education from the age of about 11 years.

### 1. *The primary school system* (compulsory school education)

It consists of three stages:

- *Pre-school education*
- *Infant education*
- *Junior school*

#### (a) **Pre-school education** (from 2 to 5 years)

Pre-school education is given in the independent '*nursery schools*' which accept children from the age of two, or in *nursery classes* which are attached to Primary schools, where the admission age is three.

Attendance is voluntary. All nursery schools and classes are coeducational and a class may not exceed 30. Presently, there are about 500 such schools yet this is hardly enough. Demand outstrips the supply. *According to the Education Act of 1944, a nursery class is legally part of the primary school to which it is attached. There are no formal lessons as the children occupy themselves in indoor and outdoor play.*

#### (b) **Infant education** (from 5 to 7 years)

The infant stage is a distinctive part of the British primary education and serves as a transition period. The infant stage ends between the ages of 7 and 8. Life and teaching are similar to that in a nursery school, but the discipline becomes more systematized and the content more formal. Reading, writing, and simple arithmetic

are taught when the child is ready. In many cases, one finds the infant school attached to the *junior school*.

**(c) Junior school (junior stage from 7 or 7 1/2 years to 11 years)**

Classical descriptions of this stage refer to it as one in which the child begins to master the skills of reading and writing and arithmetic. Presently some junior schools experiment with additional modern math courses as well as French language lessons. Modern trends emphasize oral work and enlisting the initiative of the pupil in terms of 'activity'.

Usually at the age of 11, pupils pass to the different *secondary schools*.

**2. The secondary general schools**

Within the secondary general schools, one finds three directions—the technical, the classical and the modern. As of 1969, there were over 3 million pupils in the secondary schools, some of which practice coeducation. All secondary schools provide education at least to the age of 16; others provide complete secondary education to the age of 18. The past system of testing in order to transfer the pupils to the different types of secondary schools has been undergoing reforms.

All authorities are prepared to review the placing of pupils if at any time during the secondary school stage, they appear to be wrongly placed. This insures some flexibility. Yet, since curricula are not standardized, such a transfer is not easy for the pupil in question. The selection examination for secondary education is and has been known as the 'eleven plus' system. Its purpose has been, in the past, to select pupils for the different types of secondary schools—this meant that the brightest went to grammar school, in a few areas, the next brightest went to central or technical schools, and the rest were dismissed to the secondary modern schools. The examination system 'eleven plus' came under heavy criticism as it produced great psychological strain for the children and had forced the junior schools toward often uncreative formal teaching—often dividing the children into ability-groups. This contrasted with the diversity and freedom found in the show-piece of British education—the infant school.

Most authorities are now modifying the selection procedures and some have abandoned them altogether.

**(a) Secondary modern schools**

The secondary modern schools, a direct result of the Butler Act of 1944, represent the biggest group among secondary schools and provide a general education with a practical basis. They stress handicrafts, domestic science, and other practical activities and their curricula may be influenced by local circumstances, including the background of the pupils. A clear tendency by 1960 was in the direction of creating 'special' courses—thus adding a semi-vocational base. There is a great range in method of instruction as some are influenced by the grammar schools and concentrate on written work. Others are involved in cooperative production of projects. Among extended courses, the academic course leading to the GCE or General Certificate of Education is one of the most spectacular as the numbers are rising. This is remarkable for a group of schools intended for the non-academic

pupil. Secondary modern schools also provide for external examinations at a lower level, such as CSE—Certificate of Secondary Education.

#### **(b) Secondary technical schools (before 1945, junior technical schools)**

The curriculum is generally speaking similar to a grammar school, but more emphasis is given to science, maths, technical and practical subjects. Latin and Greek are usually not part of the course-work. The distinguishing feature is in the reasonably able pupils who make their best response when the curriculum is strongly coloured by vocational interests. Presently, there are about 220 secondary technical schools many of which have chosen links to a particular industry or occupation or with the technical colleges.

In some subjects, the curriculum has moved from the area of a trade school to that of a grammar school—there is no classical language but at least one modern foreign language. Mathematics and science are strong but not usually more so than in the grammar school.

Workshop practice figures prominently as instruction is of a practical appeal.

Secondary technical school pupils enter for the GCE either on the ordinary O-level or the more advanced A-level. Some pupils pass on to the university, but the links with the technical colleges are far greater.

As the secondary technical schools seem to be decreasing, the critics argue that there is no longer a need for them, as the grammar school is equipped far better to handle advanced education. Often, the secondary technical school is referred to as 'second best' unable to share the grammar school prestige. Tendencies show that it may become a type of grammar school with scientific and technical bias or be absorbed in the comprehensive or multilateral school system.

#### **(c) Grammar schools (the 'classical' direction)**

The grammar school is attended by approximately 25 % of the English students and is to provide a general course lasting about seven years in which the treatment of languages, mathematics and science follows a logical development, leading to a subsequent intensive course in 'sixth form' (12th and 13th years of schooling). All grammar schools prepare their pupils to take external examinations for the General Certificate of Education (GCE). The examination can be taken at two levels—O-ordinary level and A-advanced level. They are 'subject' examinations, i.e. passes are given for individual subjects.

The examinations are conducted by eight boards; seven connected with universities and the eighth associated with a technical background.

The GCE is used as a qualification for entry to a professional career or a course of higher training. Each profession creates its own rules and requirements regarding the GCE since the examination is according to 'subject'.

#### **(d) Special forms of secondary education**

##### *Bilateral schools*

These provide any two of the three main elements (i.e. technical, modern, grammar). The number of the bilateral schools is still small, yet the many secondary

modern schools where students prepare for the GCE could be possibly considered bilateral as well.

### *Comprehensive schools*

There has been continuing development of comprehensive schools, which cater for all the children in an area without the need for selection, in many parts of England and Wales. The number of such schools is growing: in 1972 about 42 % of pupils in public-maintained secondary schools were in comprehensive schools. There are various ways in which comprehensive education is being developed, depending on local circumstances, and more than one form of organization may be adopted in the area for which a local authority is responsible. The most favoured type of organization is a pattern of comprehensive schools with an age range of 11 to 18 years. A substantial number of authorities, however, have introduced a system of middle schools which straddle the primary/secondary age range and others are developing comprehensive schools with an age range of 11 to 16 years, combined with sixth form colleges for pupils over 16.

Nearly 7 % of secondary pupils attend non-maintained schools, nearly three-fifths of them direct grant schools and the remainder independent schools including those known as 'public schools'.

There are also *boarding-schools* and the various *evening secondary general schools* leading to higher education.

### *3. Higher education*

All universities in Britain are financed on and operate on a national basis, so that students from any part of Britain may—if suitably qualified—seek admission to any of the 34 universities in England and Wales and the 8 in Scotland.

English universities have full control over admission and operate according to successful passage in a range of O-level and A-level examinations. The number of student places available is mostly 'fixed'. Mature (usually over 25 years) candidates can be considered without GCE stipulations.

There are the '*traditional*' universities, dating back to the middle ages: Oxford and Cambridge, each of which is organized into colleges and faculties. Within the colleges, the students live. A speciality of these colleges is the tutorial system in which each professor serves as tutor for a small student circle. The student attends his elected faculty of the university in order to proceed with his lecture courses and seminars. There is also *Durham* (about 3 000 students) also based on colleges and *Newcastle* (about 6 000 students) which was a part of the University of Durham until 1963 when it became a separate university.

There are the other universities as Birmingham or Manchester which were founded through *private initiative* in the 19th century. The system here resembles the French universities, although most students live privately in town.

The third type, the *modern university*, is an initiative of the central government due to the growing number of students. The differentiation is found within an all-encompassing 'university campus'.

## Advanced training

The term 'further education' may be used in a general sense to cover all post-school education. More commonly it excludes universities and colleges of education. Further education in this sense still covers a field of great diversity and courses are offered in vocational and academic subjects from craft to professional level and from GCE O-level to first and higher degrees: also included is provision for cultural and leisure activities. The wide range of institutions include technical colleges, colleges of commerce, colleges of art, agricultural colleges and evening institutes—and the new polytechnics, which have been formed in recent years as the main centres of higher education within the further education system. Study may be full-time, sandwich (with periods of study in colleges alternating with periods of practical training in industry), part-time during the day (e.g. one day a week or full-time for short periods) or in the evening only.

Thus the further education establishments form a very flexible system which permits anyone to acquire whatever standard of qualifications his capabilities and available time allow. There are no age limits, and basic qualifications can be acquired *en route* to more advanced courses.

Most further education establishments are provided and administered by local education authorities, but a few specialist colleges are grant-aided by the Department. There are also a number of independent specialist establishments, such as secretarial colleges and correspondence colleges.

More than 500 other major further education colleges offer both advanced courses and lower level courses for technicians and craftsmen. They include local colleges of further education which offer mainly lower level courses for school leavers and adults: these include GCE O- and A-levels, which are more often taken at school. Many young workers (about 628 000 in 1970-71 of whom about 250 000 were under 18) are released by their employers for a day a week to attend courses at further education colleges. A number of other young workers (about 57 000 in 1970-71) are freed by their employers to undertake short periods of full-time study (block release).

There is a wide variety of two-year or three-year vocational courses which can be entered directly after leaving school at age 16 or later. There is at present no system of national certification of these courses; some individual colleges award their own certificates and diplomas and there are also some regional schemes of certification. Art and design courses are also provided at polytechnics and other further education establishments.

There are also 41 agricultural colleges of which 36 are maintained by local education authorities. Most of the agricultural colleges provide part-time as well as full-time, sandwich and block-release courses, including courses leading to the award of the Ordinary National Diploma and the Higher National Diploma. Courses in agriculture are also provided in agricultural centres attached to agricultural colleges and in the agricultural departments of further education colleges.

29 polytechnics which have been formed in recent years out of 60 leading colleges of technology, commerce and art, as the main centres of higher education within the further education system. Courses of higher education range from those immediately above GCE Advanced level or Ordinary National Certificate to those

leading to first and higher degrees of the Council for National Academic Awards and to professional qualifications of degree level.

The polytechnics are planned for ultimate growth to at least 2 000 full-time students. A wide range of subjects is covered, many at degree level.

The polytechnics and colleges providing technical education usually seek industrial cooperation through governing bodies which include representatives from local industry and commerce. Local industrial personnel, who usually include employers and trade-union representatives and teaching advisors, can plan the courses of study.

College technical courses, it must be remembered, have never attempted to include all the training which is necessary for a skilled craftsman. The specialist training lies in the hands of the employers.

The Industrial Training Boards do consult at many stages with the technical colleges in order that the two elements of education and training are closely integrated.

### **III. — Vocational training (outside of the school)**

The local Youth Employment Officer organizes many discussions and seminars in the secondary schools with pupils studying in their last year. He arranges local information visits to local establishments and reports to the pupil about possible jobs. These services are available for the pupils up to the age of 18 and also to all employers. About one-third of the pupils are able to find employment in this manner. The students then can either pursue first a full-time technical college course or enter into an apprenticeship agreement with the employer. They can be released for 'one-day-a-week' day education. Others still must follow night classes if their employers are unable to release them. Those doing apprenticeships and part-time study may work toward 'Certificates of the City and Guilds of London Institute' or 'National Certificates' aiming at technical qualifications.

The *Industrial Training Boards* make certain that there is adequate training provided at all levels of employment in the specific industrial branches. The boards make recommendations as to the standard, content and length of the training. Many consultations take place at local and national levels in order to consider local variations and patterns of training.

Within the engineering sector, many apprentices are able to take the first year 'off' in order to undergo basic workshop training and vocational education. A second phase includes a specialized 'unit' or 'module' training where apprentices are able to have 'off' periods within the production area. Thus the apprentice continues as a part-time student. Yet Colleges have found it difficult to accommodate part-time students in courses not peculiar to a particular industrial branch. Broader basic training within technical education is being introduced while specialized 'unit' training in production areas increase.

Changes in the pattern of training have necessitated close cooperation between educationists and the ITBs (Industrial Training Boards).



The Industrial Training Boards frequently prescribe further education schemes associated with particular training. It is to be noted that employers not complying may be refused a grant usually given by the Boards to those firms operating 'satisfactory' training programmes.

#### IV. — General development and aims

Primary education is changing due to local pressure. Primary schooling is to be thought in terms of *activity and experience* rather than knowledge and stored facts. Some of the experiments as 'Summerhill' and 'Beacon Hill' have been the sparks of inspiration. The creative freedom of the 'Child-centred schools' is usually combined with a great degree of self-discipline. Learning is thus recognized as individual.

Secondary education is becoming less selective in order to take all the children and cover the entire ability range as the 'comprehensives' are on the increase. The curriculum development is thus also becoming more innovative. Small rural schools are on their way out while unqualified teaching personnel are being steadily removed to be replaced by teachers who follow now three-year teacher-training courses, instead of two.

Only recently (March 29, 1973) in line with a recent White Paper on the future of the education service, a fundamental re-shaping of higher education *outside* the universities has been considered. That planned for 335 000 students in non-university higher education by 1981, 180 000 of them in the polytechnics and the other 155 000 in the colleges of education (teacher training) and colleges of further education.

Local education authorities thus are to plan for another 130 000 places.

The whole process revolves around the Government's plan to reduce the number of students in full-time teacher-training from about 114 000 to between 60 000 and 70 000. The colleges will therefore have to diversify, to take care of the needs of the other 40 000 to 50 000 students. In addition to the 138 000 students already in colleges of further education and colleges of education, another 17 000 places will have to be provided.

Authorities are asked to bear in mind three points: (1) institutions will need to be of a certain size to obtain full economies of scale; (2) further concentration of very large numbers of students on a scale leading to problems of transport and residence should be avoided; (3) wherever possible provision should be made within reach of home for both part-time and full-time students.

The White Paper suggests that institutions specializing in arts and social sciences could be much smaller than the average polytechnic; between 1 000 and 2 000 full-time and sandwich students could be offered a reasonable range of courses, and some institutions could also offer courses below the most advanced levels.

Attention is drawn to the imbalance of higher education places. Greater London, with 78 places per 1 000 of the school population, has twice the proportion of places the North has, with 39 places per 1 000.

Although London will continue to be an attraction to large numbers of students, the circular says, the rapid rate of increase should be slowed and a relatively greater rate of increase provided in less-advantaged areas.

In the area of vocational training, HM Government proposes to set up an overall *National Training Agency* so that the various training boards can be coordinating their activities and so that programmes in industry may be initiated which are not covered by the boards. The central agency is to operate on its own budget.

There is also an increase in the creation of 'Education Officers' for individual firms in order to advise candidates and produce informative papers as well as carry on public relations. The vital stage between school and work is to be bridged as well in this manner. In many schools, teachers are still *without* industrial experience, while in technical colleges, the teaching staff is in constant consultation with industry and commerce. Some schemes have been organized in which teachers are able to spend three weeks working in factories and offices (the Confederation of British Industries has given much public relations to these schemes). Thus, there is an increasing exchange of information and an insight into the working situation!

## *ANNEX*

### **Special schools for physically and for mentally handicapped children**

Eight main categories of pupils who require special educational treatment are recognized: blind or partially blind pupils, deaf or partially deaf pupils, educationally sub-normal pupils, epileptic pupils, maladjusted pupils, physically handicapped pupils, delicate pupils and pupils suffering from speech defects.

'Special education' is provided in ordinary schools, only for more serious cases in day or boarding special schools—occasionally in special schools attached to hospitals, or individually at home.

Classes in special schools are smaller than usual—10, 15 or 20 according to the defect.

The category 'maladjusted children' dates from 1945; they are the pupils who for psychological reasons are unable to adjust themselves to ordinary living, and treatment is regarded as still being in the experimental stage.

The supply and training of teachers for special schools remains unsatisfactory. For teaching blind or deaf pupils in special schools teachers must obtain specialist qualifications in addition to the normal one of 'qualified teachers'. For teaching pupils in the other categories, whether in a special or an ordinary school, no paper qualification is required, though naturally few teachers embark on this work unless they have an interest in it.

### **Education in rural areas**

The old all-age elementary school was found in all villages. As reorganization proceeded older pupils were collected into secondary schools.

Rural pupils who need selective secondary education (technical or grammar) must often travel long distances or become boarders. Rural schooling is a significant human problem in England and Wales, but it is not statistically important.

### **Private schools**

An independent school means one that is financially self-supporting, and receives no subvention from public funds. It may be run for private profit, or as is the case for all the well-known schools—as a non-profit-making Trust; there are about 4 000 such schools. Such a school is not entirely free from State supervision; since 1957 it is open to inspection.

The best-known independent schools are the 'public schools', but there are many recognized and registered schools outside that circle. About 6 % of all school pupils are in independent schools, probably more than half in primary schools.

## SCOTLAND

### I. — Legal bases and competences

#### 1. School education

Scotland, although part of the United Kingdom, has its own educational system which is governed by the 1962 Education Act of Scotland providing for the compulsory education of children between the ages of 5 and 16.

The Act of 1962 places on the parent of every child of school age the duty of providing him with a suitable education. This may be through a publicly maintained school or a private school, or by arranging for tuition at home. Education is provided free of charge for every child attending publicly maintained schools. Where there is sufficient demand, separate schools for religious denominations are provided, although religious education is given in all schools.

Education in Scotland (except university education) is under the general control of the Secretary of State and is the concern of the *Scottish Education Department*. The Act of 1962 places on certain local authorities (the councils of the cities and the councils of the 31 counties into which the remainder of Scotland is divided) the duty of securing the adequate provision of all forms of primary, secondary, and further education.

Thus, the Scottish Education Department does not itself provide schools or colleges, as the 35 local education authorities carry out this duty, taking also into account the existing private schools and colleges. The education authorities do not control the regional and national colleges of technology and arts or colleges of education, but maintain the public schools (including denominational schools) and are responsible for school health and welfare and the providing of grants. There are, in the private sector, the 'grant-aided schools' which are conducted by bodies of managers who receive grants directly from the Scottish Education Department. And there also exist 'independent schools' which are conducted by proprietors without any public funds. The Secretary of State's powers in respect of schools and teachers are similar to those of the Secretary of State for Education and Science (England and Wales). He is consulted on university matters, but is also responsible, unlike his English counterpart, for social work including child care. His main advisory bodies are the Advisory Council on Education in Scotland; the Scottish Consultative Committee on the Curriculum; the Scottish Technical Education Consultative Council and others. The department's headquarters are in Edinburgh, but a liaison staff is maintained in London, chiefly for contact with Parliament and other governmental bodies.

#### 2. Vocational training

Technical and vocational education courses are provided in 10 central institutions each serving a particular region. They are managed by governing bodies, which

are independent of the statutory education authorities, representing the educational, business, and/or professional interests concerned. The Scottish Education Department pays particular grants toward vocational education courses.

The Industrial Training Act of 1964 applies to Scotland as well, thus one may refer to the text of England and Wales covering vocational training.

## **II. — Education and vocational training in school**

Compulsory schooling takes place from the age of 5 to 16. The raising of the school-leaving age to 16 has taken place recently.

Most of the 3 136 schools supported from public funds are known as 'public schools' and not to be confused with certain English independent schools. Since Scotland is sparsely populated, about 15.2 % of these schools are small one-teacher schools.

Further, there are 29 grant-aided 'secondary' schools and 110 independent schools, which are mostly day schools, unlike those in England and Wales. In remoter districts, where daily travel to school may be impracticable, accommodation of pupils is provided in lodgings or hostels. In some areas, children speak only Gaelic, which is still in use in the homes in the Highlands and Islands. But Gaelic often gives way to English as the medium of instruction, once the child advances in school.

### *1. Pre-School education (from 3 to 5 years)*

Educational authorities have a duty to provide, for children aged 3 and under 5, education in nursery schools and classes where sufficient children, whose parents desire such education for them, can be enrolled to form a class or school of reasonable size.

The aim of the nursery school is to create a planned environment which will afford opportunities for informal learning. An expansion of nursery places has been initiated under the Urban Programme.

### *2. Primary education (compulsory school education)*

The entrance requirement is 5 years old at a fixed date for commencing primary school attendance. The primary course covers 7 years from the age of 5 to 12. The course may be provided in a primary school or in the primary department of a school providing both primary and secondary education. The responsibility for framing the schemes of work in each school rests with the local education authority in consultation with the head teacher. Curricular changes of great significance have occurred in recent years. Skills involving reading, writing, and arithmetic are basic elements of the primary system but emphasis is placed on the practical application of these skills. Art and craft activities begin at an early stage and natural and physical sciences are replacing the traditional nature study. The teaching of a foreign language has also been introduced in many schools.

3. *Secondary education (compulsory pupils transfer normally to secondary school at about 12 years of age)*

The secondary courses last from 4 to 6 years. Generally, one can divide them into three types:

- (a) five-and-six-year courses leading to the Scottish Certificate of Education Examination on the *higher* grade;
- (b) four-year courses leading to the Scottish Certificate of Education Examination on the *ordinary* grade;
- (c) four-year courses not leading to the Scottish Certificate of Education Examination, but providing a *general education*.

It is increasingly common for secondary schools to provide all these types of courses, so that all pupils in one region may attend the same school. Still, in some areas, certificate and non-certificate courses are found in separate schools. In others, all pupils may commence secondary courses together but may be transferred after the second, third, or fourth year for certificate-courses.

There are:

**(a) Education-authority secondary schools**

These are managed by the 35 statutory education authorities. There is also the opportunity to attend day or night classes in order to take the Scottish Certificate of Education Examination at 'O' or 'H' grades.

**(b) Grant-aided secondary schools**

These schools are managed by governing bodies and receive direct aid from the Scottish Education Department toward their maintenance expenditure. Some have boarding room and primary departments as well. The majority of these can be found near Glasgow and Edinburgh. Grant-aided schools are mostly single-sex and charge fees. Scottish grant-aided schools are not required, as are the direct-grant schools in England and Wales, to provide places for pupils sponsored by education authorities.

There are a variety of admission procedures as tests and interviews or those where there has been a long family tradition of attendance. Scholarships may be offered on a competitive examination basis.

**(c) Independent schools**

These are managed by private individuals or by autonomous bodies and receive no grant-assistance. They are a very small element of education in Scotland, though they do not always rely on a rigid and exclusive system of selective entry. There are entrance requirements on the general lines of those for grant-aided schools. Their number is much smaller than those in England and Wales.

The independent schools vary greatly in size and character and provide a wide range of courses. Though they are usually well-staffed schools, the independent schools are not required as a condition of registration to employ specifically qualified or registered teachers. They are not comparable to most highly selective independent schools in England and Wales as most have a number of pupils of

modest ability. Many do take the SCE qualifications though the proportion is lower than in other types of schools.

#### **(d) Comprehensive schools**

As the policy of reorganization along comprehensive lines is more widely implemented, there are certain modifications taking place:

The first 2 years of the secondary course are becoming orientation-periods in which pupils may explore their abilities and interests. They are then guided towards the most suitable ones. Included are English, history, geography, mathematics, science, art, technical subjects for boys and home economics for girls. A foreign language, two in some cases, may be added to the curriculum. At the end of the second year a decision is taken whether the pupil will aim at presentation in one or more subjects in the Scottish Certificate of Education Examinations or will complete a course of general education. In the latter, general education not leading to certificate presentation, one attempts to add a vocational bias to the school work.

For those aiming at certificate presentation, a choice of subjects is made, yet a balanced curriculum is maintained throughout. Although vocational education is regarded as a concern of further education, the curriculum may include for some pupils also business studies, economics, nautical subjects, and agricultural science. All these may be studied in preparation of the SCE which are conducted by the Scottish Certificate of Education Examination Board. There are two grades in the examination—Ordinary and Higher, the former taken usually at age 16, the latter at 17 or 18. Since 1968, a Certificate of Sixth Year Studies has been available to pupils who have completed the study of their main subjects at Higher Grade. SCE examinations are open to candidates in further education colleges, to external students, and to school pupils.

Within the 'all-through' comprehensive schools which have non-selective intakes, the pupils are thus of varied ability either interested in remaining at school until the statutory leaving age of 16 or going on to take the SCE. These schools are coeducational.

In long-term plans, education authorities have tended to favour the 'all-through' (12 to 18) comprehensive school, but so far it has been necessary to take intermediate steps to meet local circumstances.

By 1965, only three out of 35 education authorities in Scotland did not have at least some schools of comprehensive nature.

It is to be noted that there is no national examination below Ordinary grade (O level), corresponding to the Certificate of Secondary Education in England and Wales.

Decisions about the most suitable secondary courses for pupils who transfer from a primary to a secondary school organized on comprehensive lines are normally not taken until the pupil had experience of general secondary work. Suitability can be assessed through transfer boards and teacher panels and primary school reports.

#### (e) Part comprehensive schools

Instruction on the secondary level can also take place in the Junior High Schools (1st cycle) which are connected to Senior High Schools (2nd cycle secondary). They are found in rural areas of Scotland and are comprehensive for the first two years. Pupils with the suitable potential for presentations on the Higher Grade of the Scottish Certificate of Education transfer then to a central comprehensive 'all-through' school at the end of the 2nd year, and the Junior High continues to provide for those pupils not likely to take any Certificate or those who take it at the Ordinary level.

#### 4. Further education

Further education may commence whenever the pupil leaves school (from age 16) and includes both part-time and full-time courses. In Scotland, the term 'higher education' is used to denote further education for persons who have attained a standard equivalent to the Higher Grade of the Scottish Certificate of Education. For those who leave school without desire to enter this 'higher education' level, a wide range of 'further education' courses is available. These include full-time 'pre-vocational' courses consisting of vocational and general education for those leaving at 16 and courses to enable students to sit for the subjects in the Scottish Certificate of Education Examination. Furthermore, there are part-time courses of a vocational character. For some of these, there is the entrance requirement in terms of Ordinary grade passes. Later there is a possibility to continue in courses of higher education. The more advanced courses (or 'higher education' courses) within further education are provided in 13 central institutions which provide courses in science, technology, management, and domestic science. These colleges are situated in the four cities and are managed by governing bodies, independent of the statutory education authorities, representing the educational and professional interests concerned.

One may differentiate on the 'further education' levels:

(a) *The further education colleges* offer a wide range of subjects, five of which offer courses leading to degrees under arrangements approved by the Council for National Academy Awards or in cooperation with universities. They provide full-time and sandwich courses for students who have completed at least 5 years of secondary education and who are seeking professional qualifications or Higher National Certificates or specialized diplomas. These are geared to the varied careers and occupations found in modern industry and commerce and vary from area to area due to local circumstances.

(b) There are also about *100 day colleges* and *centres* concerned with part-time day release and evening courses and with full time pre-vocational and first year apprenticeship courses. These are suited for school leavers who have completed not more than 3 or 4 years of secondary schooling.

(c) *Pre-vocational courses* are designed to provide a general preparation for a career and are also intended to fill a gap between the school-leaving age and the minimum age of starting an industrial apprenticeship.

(d) For those who have gone into employment as semi-skilled workers, a range of *operatives' courses* is available aimed at helping them become more proficient in



their skills. The courses are usually on a day-release basis and may lead to certificates of the City and Guilds of London Institute.

(e) There are also *craft courses* available also on a 'day-release' basis of one day per week as well as 'block-release' arrangements whereby longer periods may be spent in colleges of further education and in practical training sessions in the firm. Other education centres operate in the evening in school premises, often provided for by voluntary bodies.

### *5. Higher education*

Scotland has a long tradition of university education and has often served as a model for higher education in the English-speaking world.

There are eight universities in Scotland. Each has complete autonomy in regard to admission but applicants to first degree courses must satisfy the general and special minimum entrance requirements. Student grants are freely available, but whereas in England and Wales the award of grants etc. is the responsibility of the local education authorities, the student allowances in Scotland are administered by the Scottish Education Department. The Scottish universities can be divided into 2 groups: the old traditional universities as St. Andrews or Edinburgh and the modern comprising such as Dundee or Strathclyde. It should be noted that the University Grants Committee operating in England and Wales has powers extending throughout Great Britain and thus, government policy towards universities affects Scottish universities as well.

### **III. — Vocational training (outside of the school)**

Please note the section on vocational training (outside of the school) in the text on England and Wales, as the Industrial Training Act of 1964 applies to Scotland, England and Wales.

### **IV. — General development and aims**

The shortage of secondary teachers is a great problem in Scotland but measures are in hand to combat the problem. In contrast to the present arrangements in England and Wales, all secondary teachers in Scotland, aside from holding equivalent qualifications, must have completed a course of teacher-training. Closed circuit television has been in regular use at a number of Scottish universities and schools and the use of media and visual aids is increasingly promoted. This is in line with the promotion of educational technology at all levels of education throughout Great Britain.

Provisions made in the Education Act 1969 of Scotland which empower local education authorities to provide social and recreational facilities have been put to use. There has been an increase of technical, cultural, recreational and informal courses in a number of Scottish educational centres. This development is part of the growth of classes with a less utilitarian aim, in which study is undertaken by persons who, without wishing to obtain a qualification for vocational purposes,

decide to increase their knowledge or capacities. In arranging these classes there is a close collaboration between education authorities, universities and the Workers' Educational Association. Five such University Extra-Mural Committees have been formed in Scotland. Another recent development has been the growth of closer links between the higher education establishments in Scotland and industry. This development has been encouraged by the University Grants Committee and foresees an increase in industrial consultancy units, liaison centres and industrial units in order to channel the specialized knowledge and expertise of universities to the aid of industry.

## *ANNEX*

### **Special schools**

Handicapped pupils (those suffering from deafness, blindness, physical or mental handicaps) attend special schools or special classes attached to ordinary schools. Some other specialized classes are attached to hospital departments and cater for severely handicapped children. The statutory leaving-age for pupils given special education is 16 years.

## NORTHERN IRELAND

### I. — Legal bases and competences

#### 1. *School education*

Education is one of the services for which the minister concerned is responsible to the Parliament of Northern Ireland and for which finance is voted by this Parliament. (Note: When Northern Ireland became a self-governing unit of the United Kingdom in 1921, its newly constituted Ministry of Education assumed supervisory control of the educational services which had been administered by three separate departments beforehand. Education in Northern Ireland was brought into a single system by the Education Act (Northern Ireland) of 1923). The present educational system of Northern Ireland is based on the Education Act (Northern Ireland) of 1947 as amended by subsequent Acts. The Act lays down the organization of the statutory system in three stages—primary, secondary and further education—and with the same age ranges as in England. The parents or legal guardians of children of compulsory school age (between 5 and 16 years) must ensure that the children receive efficient full-time education suitable to their ages, aptitudes, and abilities, either by regular attendance at school or otherwise. The education is provided in grant-aided schools and all but a comparatively small number of pupils (less than 1 %) attend such schools. Education in primary, secondary and special schools is free and the cost of education in secondary grammar schools is substantially offset by scholarships awarded by local education authorities.

Public education, other than university education, is administered centrally by the Ministry of Education and locally by eight education authorities. The system is broadly comparable to that in England and Wales, whereby the education authorities are responsible for securing efficient education throughout primary, secondary, and 'further' education stages. The Ministry of Education is responsible for the coordination of the overall provision and for the determination of policy.

Furthermore, its tasks include the review of planning by the local education authorities, the approval of individual projects initiated by those bodies or by voluntary agencies, and the determination of standards and supervision of design and construction of school premises. The Ministry of Education also gives guidance in matters of curriculum and teaching methods and supervises the ancillary services such as school meals and school transport. It carries additional responsibility for the training of teachers, the maintenance and development of the youth service, and the youth employment service.

An 'Advisory Council for Education', a statutory body constituted under the terms of the Education Act of 1947, assists the Ministry in order to advise it upon matters connected with educational policy and practice and upon any questions referred to it by the Ministry. The eight local education authorities, which are the councils of each of the six counties and of the two county boroughs, are

responsible for the local administration of the education services and exercise their functions through education committees. University relations with the government are conducted through the Ministry of Education. The University Grants Committee acts in an advisory capacity to the Ministry yet it is not itself the channel of communication as in Great Britain. Statutory responsibility for providing 'further education' rests upon the local education authorities. They are, however, enjoined by the Act to have regard to any facilities for further education provided by other bodies in their areas and assist them financially.

## 2. Vocational training

The provision for vocational training in Northern Ireland is made under the *Employment and Training Act* (Northern Ireland) 1950 which corresponds to the *Employment and Training Act* 1948 in Great Britain. The responsible Ministry is the Ministry of Health and Social Services. The training facilities are being developed as a total system of interdependent parts providing a battery of resources at the disposal of the individual and of industry. Both by direct training activities and by paying a large share of the cost of training undertaken by industry, the numbers in whose training the Ministry is involved at any one time is the equivalent of some 20 % of persons employed. Training under the *Government Vocational Training Scheme* in Northern Ireland is largely carried out at the Ministry's 12 *Government Training Centres* which provide about 3 000 training places for adults and apprentices. Since 1972, the Ministry has also introduced the concept of the *Integrated Work Force Unit* each of which is made up of 12 men in selected towns throughout Northern Ireland for the purpose of providing training in basic skills. Northern Ireland has its own *Industrial Training Act* (1964) whose main objective is to secure an improvement in the quality of industrial training.

Nine *Industrial Training Boards* have been established under this Act, encompassing within their scope about two thirds of all Northern Ireland workers. All of the *Industrial Training Boards* are serviced by a single administration—the *Northern Ireland Training Executive* which serves a common secretariat. Furthermore, the *Industrial Training Act* (1964) provides for an advisory body—the *Northern Ireland Training Council* consisting of various representatives from industry, trade unions, education, and the Boards. It advises the Ministry generally on the exercise of its functions under the *Industrial Training Act* (1964) and undertakes training research. The *Northern Ireland Training Council* sponsors also a scheme whereby bursaries are awarded to personnel, training, and industrial relations specialists. Among other training and consultancy agencies, there is the *Industrial Training Service* providing practical help to Employers' Organizations and similar bodies as well as the *Management Development Service*, offering annual programmes of management courses at all levels.

## II. — Education and vocational training in school

### 1. Pre-school (pre-primary) education (from 2 to 5 years)

There are a small number of nursery schools which cater for children between the ages of 2 and 5 years as well as nursery departments operated within the primary

schools. In general, the aim is to introduce young children to school work through organized play activities.

## 2. *Primary education (from 5 to 11 + years)*

The majority of children receive their early education in primary schools, although there is a small proportion attending the preparatory departments of the grammar schools. Grant-aided schools under the management of a local authority are known as *country primary school*. If not under such management they are called *voluntary primary schools*.

These children between 5 to 7 are called 'infants' as they are pupils in their first 2 years in primary education. They may be grouped in a department as a part of a primary school or may be in an infant school with its own premises. Classes known as 'junior' or 'standard' are those catering for pupils aged 7 to 11+. They too can be attached departments or independent junior schools. The former division between infants and junior is being replaced by a unified system of numbering classes primary 1 to primary 7.

However, due to lack of provision for secondary education in some areas, some primary schools remain "unreorganized" or not fully reorganized. These 'unreorganized' schools still provide courses from the age of 5 to the statutory leaving age of 16 years.

Some 'grammar schools' provide primary education in preparatory departments.

## 3. *Secondary education (11 + to 16)*

Secondary education begins when the pupil reaches the age of 11 and proceeds either to a secondary (intermediate) or a secondary grammar school. There may be subsequent transfer later on between the different types.

### **(a) Secondary (intermediate) schools**

For the majority of the pupils, there are 4-year courses provided which are designed to suit the requirements of the neighbourhood in which the school is located. For the first two years the education provided is of a general nature, whereas the last two years are more specialized with a practical bias, in accordance with the special interests of the pupil. Such 'biased' courses are those having a bias towards rural science or handicraft for boys and commerce or housecraft for girls. An increasing number of these pupils remain in attendance after they have reached leaving age (16 years) in order to pursue further courses of study and in order to take external examinations. It is also becoming common for these intermediate schools to provide for the most able pupils 5-year courses leading to external examinations of an academic nature. At the conclusion, pupils may transfer to another type of school. It is not customary for all pupils to sit leaving examinations, but some schools are now working on the basis of a 5-year course to the Northern Ireland General Certificate of Education at ordinary level (in some cases at Advanced level).

## **(b) Secondary (grammar) schools**

Grammar schools provide an academic type of secondary education for those pupils who have been awarded local authority scholarships and for others as well. Tuition fees are charged by all grammar schools.

Grammar schools were open to pupils who had passed the 11+ examinations, the Qualifying Examinations, yet these have been since 1965 abolished and replaced by a more simple selection procedure which is based on teachers' estimates + verbal reasoning tests. The grammar school course is normally of seven years' duration. The pupils take the Northern Ireland General Certificate of Education at Ordinary level at the end of the fifth year, and at Advanced level at the end of the course. 'Voluntary' grammar schools outnumber 'county' grammar schools by 60 to 21.

In some secondary schools, evening courses of a general nature are run by local education authorities.

### *4. Further education (technical and vocational education)*

In Northern Ireland the system of 'further education' is similar to that in England and Wales and includes courses leading to the National Diplomas and Certificates, to City and Guilds of London Institute Certificates, and the like.

(a) There are 29 institutions of further education all of which are under the control of local education authorities. Students are required to pay fees although the local education authority has power to exempt students under 18 years of age from such payment, provided they are in full-time attendance. Those over 18 may qualify for scholarships. The Belfast College of Technology is the most important establishment of 'further education', offering a variety of courses ranging from vocational courses to degree courses. There is a close relationship between the Belfast College of Technology and the local industries.

Courses in the institutions of further education consist of general education and at the same time prepare for an entry into industrial apprenticeships, commercial work, catering and the like. For part-time students courses of the Royal Society of the Arts and of the City and Guilds of London Institute are commonly provided.

Courses for National Certificates and for Diplomas are also widely available.

(b) *Advanced-level courses* are centred mostly in the Ulster College (on the outskirts of Belfast). This is a self-governing grant-aided institution similar to the polytechnics in England and Wales. Ulster College is an amalgamation of former smaller colleges offering professional and degree courses as well. Students attending vocational courses do it on a full-time, day-release, block release, or evening and other part-time bases.

(c) Most of the technological courses in mechanical and electrical engineering are provided at the *College of Technology*. Five of these can be considered as regional colleges, the remaining ones corresponding to local colleges. Following the establishment of industrial training boards in Northern Ireland the institutions of further education are cooperating in the provision of the necessary industrial training as well as the further education required by the various boards.

## 5. Higher education

As in Great Britain, higher education is expanding in Northern Ireland. Alongside the Queen's University of Belfast, there have been provisions made to establish a second university, the New University of Ulster, at Coleraine including Magee University College. University entrance requirements are similar to those in England and Wales yet may fluctuate annually according to the number of places available. Once a student has secured a university place, he is entitled to have a grant which will cover his fees and his expenses for the academic year.

### III. — Vocational training (outside of the school)

The Ministry of Health and Social Services must look further ahead than the immediate needs of industry in fulfilling its obligations to promote manpower and training arrangements *directly* related to the economic needs of Northern Ireland. Thus, incoming and expanding firms have a free survey carried out of their training needs. Having then established these needs, firms can use any of a number of schemes of assistance in order to recruit workers for advance training. These training schemes can be tailored to their own requirements in a Government Training Centre or alternatively take place in the parent plant.

#### 1. Apprentice training

This scheme accounts for the full time use of approximately two-thirds of the training places at Training Centres and involves the recruitment from all areas in Northern Ireland of boys to supplement the ordinary apprentice intakes of the construction and engineering industries.

These apprentices are given a complete year of 'off-the-job' training in Government Training Centres (GTCs) with day-release for associated 'further education' before being placed in industry to complete their apprenticeships. Every boy making adequate progress is retained in training until he can be placed in employment in which he can continue his apprenticeship. Firms are encouraged to sponsor their own apprentices for this 'off-the-job' training.

For the completion of apprentice-training, it is necessary to gain experience in industry during the final three years of apprenticeship. Grants are available and payable on a capitation basis to firms which are prepared to recruit and train boys in excess of their own requirements.

The boys are treated as employees by the Ministry and accordingly receive wages and pay National Insurance contributions. The weekly rates of wages vary quite considerably, depending upon age and trade. Lodging and travelling allowances are also payable.

#### 2. Training of young persons (non-apprentices)

Special training courses in basic engineering, construction and production have been introduced in Government Training Centres for unemployed young persons who have been unable to obtain apprenticeships. The courses which are industrially orientated have 2 basic objectives: to make the trainees more attractive as

employees and to give them specific abilities which they can use in jobs. The whole scope of young persons' training is being revised and extended in the light of recommendations by a firm of industrial consultants whom the Ministry has employed to examine the problem. Bonuses are paid for each successfully completed week of attendance at a Training Centre and the range of additional benefits available for adult trainees are also available for young persons or non-apprentices.

### *3. Training on the employers premises*

For expanding firms, a large number of additional workers may be trained on their own premises with financial and technical assistance from the Ministry. If training takes place outside Northern Ireland, lodging allowances and reasonable travelling expenses may also be paid.

### *4. Integrated Work Force Unit*

These units, comprising 12 men, provide training in basic skills and then, through the medium of production work, provide further training capable of bringing the work force to a level of competence which might be expected in a normal established industrial environment. This new concept has been introduced by the Ministry in the summer of 1972 and is to remedy deficiencies in the pattern of skills in particular areas especially these with a negligible or very limited industrial tradition. The attraction will be that in areas of acute social need, one is offering the prospective investor ready-made premises, equipment and manpower resources together with financial assistance.

### *5. Training within industry and management*

The 'training within industry' scheme comprises a series of short courses designed to train supervisors in the general skills of supervision. Special courses can be arranged to meet the specific needs of an organization. The Management Development Service offers annual programmes of management courses at all levels and may also develop tailored courses as required.

The 9 Northern Ireland *Industrial Training Boards* which are to secure an improvement in the quality and efficiency of industrial training cover the following industries: engineering, construction, clothing and footwear, man-made fibres, textiles, road transport, catering, distribution, food and drink.

## **IV. — General development and aims**

Although the value of pre-primary education has been officially recognized in Northern Ireland, little provision has so far been made. Still very few primary schools have nursery classes attached to them. Due to a lack of provision for secondary education, some primary schools remain 'unreorganized'. Yet, changes in the local administration of education are envisaged in the near future and it is hoped that primary and secondary education may be strengthened in problematic regions so that some isolated needs may be properly met.



Because of the recent general economic recession a *counter redundancy scheme* was introduced whereby grants are made available to firms prepared to retain and retrain redundant workers so as to extend the range of their existing skills.

Training programmes are submitted to the Ministry for approval; in some cases training resources are provided by the Ministry. In the area of training non-apprentices, the Ministry has introduced a pilot scheme in one of the GTCs which will contain a strong element of project work of community value. It is hoped to extend this scheme to other Centres. The Northern Ireland Training Council has recently sponsored a scheme by which bursaries are awarded in order to train persons as specialist managers of which there is an increasing need particularly with the drive to attract new industry to the Province. The 18-month course is a mixture of project work in the parent firm, seminars at the Northern Ireland polytechnic and in-plant counselling. The aim is to develop management expertise in the particular specialism obtained in the course. The Northern Ireland Training Council has also recently sponsored a scheme by which scholarships are awarded to suitable school-leavers who wish to acquire a degree qualification in mechanical engineering. The aim is the increase of engineering graduates with an orientation to industry who will be aware of the relevance of their professional qualifications to the industrial scene. The undergraduate in this scheme is sponsored generally by an engineering firm with which he will acquire industrial experience combined with day-release for one year, followed by a three-year degree course at Queen's University and a post-graduate year with the firm in order to complete the practical training period.

## ANNEX

### **Special schools**

Special schools or classes are organized for physically, emotionally and educationally handicapped children. The statutory leaving in secondary special schools age is 16 years. The local education authorities' health and welfare arrangements are similar to those in England and Wales.

## IRELAND

### I. — Legal bases and competences

#### 1. *School education*

The fundamental principles underlying education in Ireland are enshrined in Articles 42 and 44 of the Constitution of the State.

Under these Articles, which embody guarantees covering the rights of parents and of children in the educational sphere, the State undertakes to provide free primary education and to supplement and give reasonable aid to private and corporate educational initiatives when the public good requires it, and to provide other educational facilities and institutions.

In 1967, by Government decree, education up to the termination of post-primary schooling was provided free for all children who wished to avail of it. A comprehensive system of school transport has been established to enable children to avail of this facility.

Under the provisions of the School's Attendance Act of 1926 all children between the ages of six and fourteen were required to attend at a school approved for the purposes of the Act unless excused on certain definite grounds. The upper age limit for the operation of this Act was extended to 15 years in 1972.

The State's authority in Education is vested in the Minister for Education who is a member of the Government and responsible to Dáil Eireann (the national parliament). The Minister's administrative agency is the Department of Education which is staffed by civil servants, both administrative and professional, and of which the permanent head is called the Secretary of the Department. The main administrative divisions within the Department are the Primary Branch which deals with all matters related to primary schooling (ages 4 to 12) and the Post-Primary Branch which deals with all sectors of second level education. There are also sections within the Department of Education dealing with universities, other higher education Institutions, organizations of a general educational and cultural nature, special schools, publications to the Irish language etc. Physical education, sport and recreation also come within the ambit of the Department of Education and are the responsibility of a Parliamentary Secretary (junior minister).

The Higher Education Authority was established by an Act of Dáil Eireann (Higher Education Authority Act, 1971) and is responsible for dealing with aspects of the planning, financing and general administration of universities and of designated institutions of higher education.

The universities are autonomous in relation to their detailed expenditure of funds allocated, and in relation to curricula, entry conditions, appointment of staff and teaching methods.

Their internal management functions through a governing body which makes the major decisions regarding policy and finance, an academic council which decides on academic matters, and subsequently at faculty and departmental levels where matters of particular relevance to faculty and/or department are decided. In the case of the National University of Ireland there is a senate representative of all three constituent colleges which makes decisions of a general policy nature on a coordinated basis for all three colleges.

The National Council for Educational Awards, soon to be given a statutory basis, deals with the standard of awards given in technical and technological colleges and other institutions of comparable standing.

## 2. Vocational training

1. The involvement of the Department of Education in vocational training policies arises from its responsibilities under the legislation on technical and vocational education. This is now comprised in the Vocational Education Acts 1930. The responsibility of the Department of Education includes:

- (a) Making available from central funds the necessary financial supports to vocational education committees for the provision of the services required of them under the 1930 Act.
- (b) The approval, with or without modification of financial and educational schemes put forward annually by such committees.
- (c) The regulation and sanctioning of expenditure under various subheads undertaken by such committees.
- (d) The making of provisions independently, for vocational and technical education where the Department is not satisfied with the provision already made.
- (e) The laying down of regulations and conditions regarding the conduct of schools and courses operating under the Act.
- (f) The specifying of regulations governing the qualifications, selection and appointment of teachers and other officers of such committees.
- (g) Ensuring that appropriate provision is being made, that regulations and conditions are being observed and that appropriate standards are being achieved.
- (h) Specification of programmes of study to be followed, provision of examinations and certification of standards achieved on certain courses of a vocational and technical nature provided by such committees.

Under the 1930 Act there was established in thirty-eight scheduled districts, representing counties, towns and borough areas, vocational education committees with defined composition, powers and functions.

2. The duties imposed on such committees as scheduled in the Act were:

- (a) to establish and maintain a suitable system of continuation education and to provide for the progressive development of such system;
- (b) to supply or to aid the supply in accordance with the Act of technical education.

For the purposes of the Act the expression 'continuation education' was defined as 'education to continue and supplement education provided in elementary

schools and includes general and practical training in preparation for employment in trades, manufactures, agriculture, commerce and other industrial pursuits and also general and practical training for the improvement of young persons in the early stages of such employment'.

'Technical education' was defined as 'education pertaining to trades, manufactures, commerce and other industrial pursuits (including the occupations of girls and women connected with the household) and in subjects bearing thereon or related thereto and includes education in science and art and also includes physical training'.

The Act further defines powers in relation to higher technical education for certain vocational education committees which entitle them to establish and maintain schools in their areas, the main object of which would be the provision of education in the general principles of science, commerce or art suited to the requirements of persons employed in positions of control or responsibility in trade or industry.

The vocational education committees generally consist of fourteen members elected by the council of the area in which the committee operates, of whom not less than five and not more than eight must be elected members of such council.

Each committee employs a Chief Executive Officer who is responsible for drawing up an educational and financial scheme for the committee's area. These schemes are subject to the sanction of the Minister for Education. The committees may also assist students within their area to obtain technical education and may cooperate with other bodies in the provision of services and facilities to this end. In the exercise of their responsibilities in this area of education they cooperate closely with AnCO, the Industrial Training Authority. In the case of regional technical colleges, the vocational education committee delegates its powers to a board of management which in addition to committee representatives, has representation from trade union, industrial and agricultural interests. A nominee of the Minister for Education serves on this board as does also the Principal of the College and the Chief Executive Officer. In general committees are responsible for:

- (a) Making proposals for the provision of schools and other facilities and providing such schools and facilities subject to sanction of the Minister of Education.
- (b) Presenting appropriate educational schemes and financial schemes for the provision of vocational and technical education in their areas.
- (c) Appointing and employing the necessary staff, both teachers and other staff necessary to carry out the educational schemes.
- (d) Maintaining and improving schools and facilities.
- (e) Overall management of such schools and facilities.

Responsibility for industrial training rests with the Minister for Labour under the Industrial Training Act of 1967. The Minister's executive agency in this matter is a semi-State organization known as AnCO (An Comhairle Ciliuna—Industrial Training Authority).

The Minister for Agriculture has specific responsibilities for agricultural education and training. The Minister for Health has responsibility for certain aspects of medical training and for rehabilitation work.

## II. — Education and vocational training in school

Pupils may be enrolled at the age of 4. The compulsory school attendance is from age 6 to 15. Presently, some 64 % of 4 year-olds are at school and some 96 % of 5 year-olds.

### 1. *Pre-school education (3 to 6 years)*

A large measure of pre-school education is given in *national schools*. It has been indicated that the national schools and secondary schools are both State-aided and to some extent State-controlled.

National schools, are in the main, denominational schools, both pupils and teacher being of the same religious denomination. They are under the control of local managers, usually clergymen, who are charged with the direct government of the schools. The salaries of teachers are paid directly by the Department of Education and grants are made towards the building, reconstruction and equipping of such schools.

The only *completely independent* schools are a further group of pre-primary and primary schools (or private schools) mostly attached to secondary schools which are free-paying and without *any* government grants. Their curriculum is very similar to that of the national schools. They are mainly found in larger towns as Dublin, where children are left while mothers are employed. Many of these privately-owned nursey schools or centres accept children already from the age of 3 or 4. A number of them have been trained in the Montessori or Froebel method.

### 2. *The primary-school system (first level)*

The curriculum of primary education in the national schools resembles those of other European countries, except in its concern with two languages. The vernacular of the large majority of the Irish people is English yet there is general agreement on the desirability of encouraging the Irish language in schools. Therefore, Irish and English are obligatory subjects in national schools. The programme aims to equip the children with an oral and written knowledge of Irish, thus reflecting the importance of the Irish language as the first official language of the State.

Pupils continue in primary education generally until they have attained their twelfth year at which stage they transfer to post-primary schools. There is no terminal examination in primary education. A cumulative record card for each pupil is kept by the principal of the school and is transmitted to the post-primary school in which the pupil enrolls.

#### **(a) The National (primary) Schools**

The compulsory education begins at 6 years. There is no entrance examination. The pupil is placed by the headmaster in the class suited to his ability. Religious instruction is an integral and fundamental part of the school course, yet the organization of such courses is left to the various religious authorities. As to secular instruction, the usual primary courses are covered but exceptions made, for example, in the area of algebra and geometry. These are optional in all classes taught by women. Yet in three-teacher boys' schools, either algebra or geometry is to be

taught. The matters to be covered in each 'standard' is prescribed by the Department in broad guidelines, yet some freedom exists in the choice of methods.

**(b) The private (primary) schools**

Primary education is also provided for about 2.5 % of the total numbers in private, 'non-aided' schools which charge fees. Many of these are attached to post-primary schools, usually located in urban centres. Their efficiency is tested by the regulation demanding that, on passing from a primary to a secondary school, the pupils must satisfy the Education Department that they have passed a suitable examination of entrance.

*3. Post-primary education*

Post-primary education in Ireland extends from a pupil-age of eleven/twelve years to that of seventeen/eighteen years. The first three/four years are known as junior cycle and these are terminated by a State examination known as the Intermediate Certificate. This is a general examination requiring passes in five subjects. A more limited examination requirement for pupils who concentrate on practical subjects about this level is the Day Vocational Certificate. These examinations as well as marking the end of the junior cycle in post-primary schools usually also mark the termination of compulsory school attendance. Pupils may progress for a further two/three years in the senior cycle of post-primary education at the end of which they sit for the State Leaving Certificate examination. This, like the Intermediate Certificate, is a general examination requiring passes in at least five subjects. Entry to the craft trades is usually at the Intermediate Certificate level. The Leaving Certificate with specified subjects and grades is required for entry into higher education and as a prerequisite for training in most professions.

Post-primary education is provided in secondary schools, vocational schools, comprehensive schools and community schools.

**(a) Secondary schools**

There are 574 such schools in Ireland and they are attended by 158 847 pupils, which comprises 74 % of post-primary pupils. Secondary schools are private institutions which receive substantial State aid by way of teachers' salary and other grants. They also receive considerable capital assistance from the State for the provision and renovation of school buildings. In return the schools must meet standards set down by the central administration and are subject to inspection by the Department of Education which also, following consultation with school manager and teacher associations, prescribes the programme of study. By tradition secondary schools tend to emphasize the more academic aspects of the curriculum.

**(b) Vocational schools**

In each county or city there is a vocational education committee which was established under the Vocational Education Act of 1930. These committees are responsible for the provision of suitable programmes of education to prepare young people to enter trades, business or industry.

In furtherance of the objectives of the above legislation the vocational education committees established a network of 257 vocational schools throughout the coun-

try. These are attended by 51 772 pupils which comprise 24 % of post-primary pupils. The school facilities and teaching force are also utilized for vocational and technical courses and, in the evening, for adult education courses. In the main, the vocational schools concentrate on the provision of a two/three (now five/six) year whole-time educational programme for young people between the ages of 13 and 16. This programme is weighted with practical subjects such as woodwork, metalwork, mechanical drawing and in the case of country schools with rural science for boys. Girls generally follow courses based on home economics and/or commercial skills. The schools undertake a broader spectrum of educational work by offering courses of a general and technical nature to people in employment and on a part-time basis. In particular the practical emphasis of the schools led to the development of services to many workers in the building and engineering trades and in the fields of catering and commerce. With the passage of time a variety of voluntary apprenticeship schemes emerged and these were subsequently put on a firm footing, and activity in the field of apprentice education and training was extended, by the Apprenticeship Act of 1959.

### **(c) Comprehensive schools**

These were established in a number of areas where adequate facilities for post-primary education did not hitherto exist. They are managed by small committees, the members of which represent the religious authority, the vocational education committee and the Minister for Education. They are financed directly from central funds. The programme in such schools is designed to give a wide choice of subjects, both practical and academic, to the pupils and in this way to combine the traditions of both secondary and vocational schools. The schools follow the prescribed programmes for the Intermediate and Leaving Certificate examinations. The early years of the junior cycle are used as an observation period, during which pupils are guided in the making of choices between different subjects and activities within the school curricula. There are now 12 such schools attended by 2 802 pupils comprising 1.5 % of the post-primary school-going population.

### **(d) Community schools**

Community schools are of recent establishment and at present 3 are in operation and a further 40 at various stages of construction and planning. Educationally they parallel the comprehensive schools and differ from them only in:

- (a) that they are being established mainly in areas where secondary and vocational schools already exist, by bringing together and/or replacing the existing schools;
- (b) that they are financed directly from central funds and are manned directly by a committee comprising religious authority, local nominees of the vocational education committee and parents of children currently attending; and
- (c) that they have generalized responsibilities regarding adult education and the fostering of community activity.

## **4. Higher education (advanced training)**

### **(a) Universities**

There are two universities in Ireland, the University of Dublin (Trinity College) and the National University of Ireland. Trinity College is a single entity; the

National University comprises three separate colleges, one in Dublin (with an associated college at Maynooth) one in Cork and one in Galway. The universities are autonomous in terms of their internal government, but as they are heavily dependent on State subvention a degree of financial and planning control is exercised through the Higher Education Authority. The duration of university studies for primary degrees ranges from three years (general arts degree) to six years (medical degrees). Engineering and science degree courses are of four years duration. Free places are not provided in the university but an extensive scheme of student assistance is operated under the Higher Education Grants Act 1968.

**(b) The Royal College of Surgeons in Ireland**

This College incorporated in 1784, conducts courses, awards higher qualifications in surgery and licences to practise the profession.

**(c) Colleges of education (teacher training colleges)**

There are nine colleges recognized and aided by way of State grants for the training of teachers. Six of these are concerned with the training of primary school teachers, two with the training of teachers of home economics for post-primary schools and one with the training of teachers of physical education. In addition the Department of Education operates a number of courses for the training of teachers of practical subjects such as woodwork, metalwork and rural science. Teacher courses are of two, or three years duration. The entry qualification to training is the Leaving Certificate examination, or appropriate trade certificates in the case of teachers of practical subjects.

**(d) The National Institute for Higher Education, Limerick**

The Planning Board and Director were appointed in 1970 and the first programmes of study to both diploma and degree level commenced in 1972. There are five areas of study, applied science, business studies, electronics, European studies, secretarial science. This Institute is directly financed by the Department of Education pending confirmation of its establishment by statute.

**(e) Colleges of technology and regional colleges**

These colleges operate under vocational education committees and within the broad range of their functions, they provide higher education in the technical and technological field and in the area of business studies. At the present time there are twelve such colleges in Ireland. Their courses in higher education are of two years duration for a certificate, three years for a diploma and four years for a degree or its equivalent. The award-giving body is the National Council for Educational Awards. Courses generally are directed in such a way as to facilitate students in qualifying for membership of a variety of professional and sub-professional institutes.<sup>1</sup>

— Courses for the *training of technicians* (junior technician and technician courses) are also provided in technical and technological colleges. These courses are in the areas of applied sciences, all aspects of engineering and construction,

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<sup>1</sup> These associations (professional institutes) recruit, like the former corporations, by electing to membership people able to carry on the profession concerned.



business studies, catering and para-medical. The courses are of two years duration if taken on a whole-time basis and somewhat longer if taken part-time. A further year of whole-time study, or its part-time equivalent, leads to a higher technician qualification.

- A small number of *professional courses* have developed within the technical/technological college system. These courses are of four years' duration if taken whole-time and take longer on part-time basis. The courses are generally related to the technician disciplines already outlined but are broader and more comprehensive in their coverage.
- Courses of *general adult education* are supplied throughout the country in vocational schools and technical colleges. These courses are open to all who wish to enrol. In addition to their general and social function many of these courses are of such a nature as to provide for an updating of skills and knowledge for certain categories of workers. A substantial proportion of such courses also leads to certification of a kind which can be the basis of upgrading in existing employment, or of the acquisition of a new type of employment.
- There are also *technical assistant courses*. Such courses are of one year's duration if taken whole time, or two years duration if taken part-time. They cover mainly secretarial training, training for distributive and clothing trades and training for certain grades in hotel and catering work. Previously courses of this type provided preliminary training for those wishing to enter employment in engineering and construction, but such courses have now largely been absorbed within the framework of general education.
- Apprenticeship to craft trades (apprenticeship courses) in Ireland is at present of five years duration. Apprentices generally attend part-time courses specifically designed for the needs of their particular craft. The courses are of three or four years duration and are concentrated very largely in *technical colleges* though a number of trades are also catered for in a wider network of larger vocational schools. A recent innovation on a pilot basis in a number of trades has been the provision of the first year's training in an off-the-job situation.

### III. — Vocational training (outside of the school)

Many pupils still enter employment on leaving the national school at 14 or 15 years. Some do supplement their primary education by day-release or night courses.

Part-time courses are divided in accordance with different patterns of attendance which take one or a combination of the following forms:

#### (a) Day release

Students are released from their employment for one full day per week during a defined training period. This pattern is common in the case of the building and motor-car engineering trades and in some junior technician and technical courses. Students frequently supplement their day-time studies by attendance at related evening courses.

**(b) Block release**

Under this system trainees are released for a continuous block of time during each year of their training. This block varies with the nature and the level of the course and can extend from six weeks to six months. This system is proving increasingly popular in the craft trades, the average period of a release in these cases being about eleven weeks per annum for each of four years. The longer release periods apply mainly in the catering area and the shorter release periods apply to certain technician courses.

Cooperation with other departments and agencies involved in technical and vocational training is as follows:

1. Students on certain part-time courses are released with pay from their employment and are further supported where necessary by the Industrial Training Authority (AnCO). This form of support applies in particular to apprenticeship courses and to certain technician courses. Other part-time students who undertake unstructured courses on their own initiative are generally self-supporting though in the case of such courses fee levels in colleges are such that fee income represents only a small fraction of cost.

2. The Department of Education cooperates with the Industrial Training Authority, AnCO, in making available the education services for the achievement of the objectives of the Industrial Training Act, 1967. This cooperation is secured through educational representation on the council of AnCO and on the various industrial training committees. A special AnCO/Education Liaison Committee also exists to ensure smoothness of coordination as between the technical and vocational education system and the Industrial Training Authority. Areas of common ground exist largely in the fields of apprentice and part-time technician training, in the training of supervisors and management personnel and in the provision of courses of an updating variety. The part played by the educational system is largely in the provision of curricula, facilities and services for such course. The part played by the Industrial Training Authority is outlined separately.

3. The Department of Education has close links with the Council for Education, Recruitment and Training for the hotel and Catering Industry. This Council which is dealt with in a subsequent submission operates both a pre-service and an in-service training programme for all grades of personnel employed in the hotel and catering industry. The major portion of the pre-service programme and a portion of the in-service programme is provided by the technical education system.

4. The Department of Agriculture and Fisheries provides for agricultural education at all levels except that of university level graduates in agriculture. The Department of Education cooperates with the Department of Agriculture in the provision of certain pre-service and in-service courses for the farming population. Special liaison arrangements exist between the two Departments.

5. The Department of Defence operates its own training systems for military personnel. The Department of Education cooperates by the provision of training courses for army apprentices and by the provision of other courses on request.

6. Further examples of cooperation between the Department of Education and other Departments and bodies occur in the area of health in the training of medical

laboratory technicians, dieticians, opticians, health inspectors and hospital administrators and in certain areas of rehabilitation training; with the Department of Justice in the operation of industrial and reformatory schools; with the Institute of Public Administration in the operation of courses in public administration and with the Irish Management Institute in the fields of management and supervisory training.

#### IV. — General development and aims

The main subsequent developments in educational policy that are relevant have resulted from studies undertaken in conjunction with OECD in the early sixties which indicated a deficiency in technically skilled manpower in Ireland, principally in the technician category. The general import of such reports (The Training of Technicians in Ireland, OECD (1964); Investment in Education, OECD (1965); Science and Irish Economic Development OECD (1966)) was that the requisite technician manpower for projected areas of industrial growth would need to be provided by greatly increased facilities for the education and training of this manpower. In the light of these reports the following educational policies having a bearing on vocational and technical training were initiated and are still in the course of development:

1. Educational courses in vocational schools were extended from two/three years to five/six years to cover the normal span of post-primary schooling.
2. Programmes in practical subjects, woodwork, metalwork, mechanical drawing, commerce, etc., were revised, extended and incorporated into the various examination stages of general education. The Intermediate Certificate examination which is taken in general education at the end of the junior post primary cycle now includes woodwork, metalwork, mechanical drawing, commerce, etc., as subjects. The Leaving Certificate which is the terminal certificate of general education now includes building construction, engineering workshop practice and theory, technical drawing, accountancy, business organization, etc., as subjects.
3. Facilities for the teaching of practical and technical subjects in post-primary schools are being extended and made available to a wider spectrum of pupils.
4. Structural problems within the educational system which tended to restrict pupil choice and to weight post-primary curricula on the academic side are gradually being solved through the encouragement of a wider subject range and the provision of the necessary facilities.
5. A Steering Committee on Technical Education reported to the Minister in April 1967 and recommended the establishment of nine regional technical colleges. Seven of these colleges are now in operation and an eighth is in the course of construction. In the ninth case local and national circumstances led to a decision to establish separately a senior technical school and an institute of higher education. The latter is already in operation and its further development as well as that of the senior technical school is at an advanced stage of planning. These colleges, together with the facilities already existing in Dublin and Cork cater for the bulk of whole-time and part-time education at trade and technician levels and provide also for a number of professional diploma qualifications.

6. The further extension policy measures already outlined include:

Continued cooperation with the Industrial Training Authority (AnCO). This cooperation takes the form of representation, advice and provision and development of services allied to and included in the educational system for the purposes of vocational and technical training as an integral part of vocational and technical education.

Cooperation with other training agencies such as CERT (Council for Education, Recruitment and Training in the Hotel and Catering Industry) in the provision of educational and training facilities and programmes both on a pre-service and on an in-service basis.

Cooperation with other Government Departments in defining and making available the necessary educational services related to their particular programmes.

*ANNEX*

**Special schools**

*Schools for handicapped children*

Provisions by way of special classes are recent developments but on the increase. Such classes are held for children with defective hearing or sight. Further, there are some schools for mentally handicapped children as well as for emotionally disturbed.

*Schools in rural areas*

National schools are accessible to all children—largely also due to subsidized transport. Yet a major problem is still caused by the unequal distribution of the population. This is evidenced by the still large number of small primary schools—often two-and-three teacher schools. A minor problem is also existent for the small inhabited islands for which it is difficult to obtain qualified teachers. Urban areas as Dublin thus have, on the other extreme, insufficiency problems in regard to classrooms and staff.

## DENMARK

*NOTE: The Danish Parliament is at present debating a far-reaching reform of elementary education on the basis of a bill submitted in January 1973 by the Minister of Education. This bill is a revised version of the one which the Minister made public in July 1972. It followed (for further reference), the declaration of Parliament in 1969 known as the Nine Point Programme which had set out the principles on which a complete reform of the educational system should be based. Most of the points of this new legislation were well received and the draft is likely to pass Parliament in autumn 1973 and come into force from the beginning of the school year 1974-75.*

*The draft bill 'Forslag til lov om folkeskolen' shall be referred to in this text when applicable to a specific section of the educational system and will be summarized in the section dealing with general development and aims.*

*Furthermore, there have been important amendments made to legislation on the Public Primary School (extension of compulsory education), Vocational Training (basic education linked to that of the 'Gymnasium', or upper secondary school), Higher Education (University Centres), and Leisure-time Instruction. These efforts to promote integration will also be mentioned.*

### **I. — Legal bases and competences**

#### *1. School education*

In a number of educational laws, or Acts, introduced in 1958, the basis of the modern Danish educational system has been established. Both the Primary Education Amendment Act and the Grammar Schools Act of 1958 had set the trend for schools in the new industrialized society. The Danish Constitution entitles the children of compulsory school age to free tuition at public schools. Those who would rather provide privately for the education of the children may do so, as long as the private arrangements are of the general primary requirements.

Freedom in education allowing for coexistence of a public educational service and private schools receiving State aid subject to supervision, is a basis principle in Denmark.

Primary schools are the responsibility of local government, but the State makes large grants towards maintaining them. Most grammar schools, and courses leading to higher preparatory examinations, are run either by State or local governments.

Regulations for curricula are issued by the Ministry of Education, but as far as the primary and lower secondary schools are concerned such regulations are to be considered as suggestions, the municipal authorities having the power to issue cur-

riculum regulations. Teachers are free to use any relevant textbook and teaching method. The Ministry does not approve textbooks for general education nor does it make suggestions; the final examinations are State examinations supervised by the Ministry of Education.

In regard to the central administration, the Ministry of Education is responsible for all branches of general education, for training of primary and lower secondary schoolteachers, technical and commercial training, agricultural training and higher education. The 'Department' (departmental authority) is the secretariat for the Minister; it prepares bills, issues acts, subsidizes education, administers funds and the like. Four Directorates are in charge of the administration below university level:

- Directorate for Primary and Lower Secondary Education and Teaching Training;
- Directorate for Higher Secondary Education;
- Directorate for Youth and Adult Education; and
- Directorate for Technical and Vocational Education.

The local and regional administration of the Folkeskolen (public primary—lower secondary schools) is in the hands of the education committee (Skolekommissionen) and the local municipal council (Kommunalbestyrelsen). The teachers council (Laererradet) consisting of all teachers employed by each school, is to be consulted on all important matters. Private primary and lower secondary schools are not under local authority supervision. Higher secondary schools are either State schools (under direct Ministry control) or municipal schools. Private institutions are under limited control by the Ministry.

## 2. Vocational training

Technical, commercial, and other vocational schools are not under regional or local municipal administration. They are self-governing, under the direct supervision of the Ministry of Education.

A *school board* (Bestyrelse) composed of representatives of employers' organizations, trade unions, and municipal authorities, is in charge of the school. The board may be further advised by local joint trade committees (Fagkomiteer). Technical colleges (Teknika) are also self-governing and administered by independent bodies.

The *Apprenticeship Act of 1956* governs the approval of the commercial and technical schools and established rules for those who enter into an *apprenticeship contract*. According to the Act, there must be full all-round training provided in the trade with traditional training supplemented at technical schools.

Apprenticeship contracts may be entered into between a young person of not less than 14 years of age who has completed compulsory education, and a private firm or enterprise recognized for the purpose of training in an approved field.

The apprenticeship contract must be written on a standard form approved by the *trade committee* concerned and the contract has to be approved by the *local public employment office* (labour exchange).

For every approved trade or allied branch a committee, the trade committee (faglige faellesudvalg) is set up. The trade committee, composed of an equal number of employers and representatives of the labour unions are advisory groups to the Ministry of Education, the Directorate of Labour, and to the National Apprenticeship Council concerning all questions related to apprenticeship training and the protection of apprentices.

The trade committee makes recommendations to the National *Apprenticeship Council* concerning rules and curriculum to be applicable in their trades. The National Apprenticeship Council, consisting of representatives of employers' organizations, labour organizations and Ministries, then lays down rules to be submitted to the Public Labour Exchange Office to ensure that each apprenticeship contract will include all rules.

The National Apprenticeship Council thus administers and implements all provisions of the Apprenticeship Act and may arbitrarily discuss any point within the Act and submit findings to the Government.

It is the duty of each trade committee to enforce the rules within their authority. They may inspect workshops and examine qualifications and working conditions.

Disputes between an employer and an apprentice may be appraised and settled before the Arbitrators' Court.

Vocational education and training are at present in a state of transition, and a number of committees composed of administrators, educators, and labour market representatives have been studying various aspects of vocational education for the 16 to 19 age group.

Thus it should be further noted that in 1960, the Folketing passed an *Act on Occupational Training of Non-Skilled Workers* which applies to all who are employed in or seek non-skilled work, and who are over 18 years of age. The Act outlines a system of training consisting of separate 'self-contained' courses for the training of the non-skilled.

In the spring of 1972, a law also passed in Parliament concerning the *experimental*, vocational education, which until 1975/76 is expected to form the framework around planned experimental activity. Through this law a gradual rising of student enrolment in the experimental vocational education is expected. A Research Council has been set up to plan and carry out experiments and cooperate with other types of education for the 16 to 19 age group.

All individual training experiments start with one year basic training, which takes place in school, and includes basic information and introduction within the vocational area. Students get the same wage from the State as is allotted to apprentices in their first year but are not bound by an apprenticeship contract. The students continue their training inside a selected educational area, normally with interchangeable practice and schooling. A traineeship agreement is made as soon as on-the-job training begins. Apprenticeship training is to be replaced by an amended form of vocational training.

## II. — Education and vocational training in school

*NOTE: Compulsory education has until recently been seven years, starting when the child reaches the age of seven. Having finished the seventh school year, he has up to now been able to continue on a voluntary basis in the eighth, ninth and tenth forms, or in the 'real' department with the possibility of entering the 'gymnasium'.*

*By Resolution of 30 May 1969, Parliament requested the Government to draft a Bill concerning the prolongation of compulsory education, so as to make the eighth year in school compulsory from 1972/73, and the ninth year as from 1973/74. Education in the eight and ninth years will comprise certain central subjects and optional ones. Time may also be spent in further education or youth centres.*

*Regarding the structure of the primary school, it would appear that the aim will be an uninterrupted nine-year course.*

### 1. Pre-school education (2 1/2 to 7 years)

There is a distinction to be made between the *nursery school* or *kindergarten* (*børnehave*) and the *pre-school class* (*børnehaveklasse*). The former, the nursery school, is intended for children whose mother cannot keep them occupied throughout the day because of their work or lack of proper facilities. There is a variety of such all-day or half-day care nursery schools which are subsidized by a private or local authority as well as by parental fees paying part of the costs.

In 1966 an Act was passed in accordance with which all schools were allowed to establish *pre-school classes*. These classes are free and comprise two or three daily lessons. They are geared toward the 5 to 7-year olds and use the nursery school method of in-and-outdoor play, employing media and other modern pedagogical methods of education. Besides many nurseries and nursery schools, there are crèches and children's clubs in many institutions throughout Denmark. Children are taught care of pets and cleanliness and health rules there. Neighbourhood pensioners may serve as 'assistant teachers' while nursery school teachers are required to have thorough training-college background.

Within the present reform of elementary education, provisions are made for more organized group life. Pre-school education is to provide stimulation of intellectual abilities particularly for the handicapped or disadvantaged children. A defined curriculum remains the exclusive preserve of the compulsory school.

### 2. Primary and lower secondary education

Compulsory education will in the future terminate at the end of the school year in which the pupil has completed normal school instruction for 9 years. (Extension to cover 9 years made through Act concerning Amendment to Act governing the 'Folkeskole' of 17 April 1972).

Compulsory education may be fulfilled through attendance of 'Folkeskole' or private school instruction—the only requirement being that instruction given should be comparable to that offered in the 'Folkeskole'.



- (a) The '*Folkeskole*' (municipal public school) consists of the elementary school (*Hovedskole*) for children within the compulsory education age range, the lower secondary non-examination department (*8-10 klasse*), and the lower secondary examination department (*Realafdelingen*).

The great majority of Danish children receive their basic general education in these publicly-provided primary schools or '*Folkeskolen*'. About 95 % attend these schools.

- (b) The elementary schools or *Hovedskolen* cover the first 7 years of compulsory education. No differentiation or 'streaming' takes place and no examinations are held during this period. Children advance through the 7-year comprehensive course according to age, progress, and ability.

As foreign language and mathematics instruction takes place in the 5th to 7th forms, some differentiation can take place.

- (c) After the 7th form, children can continue in the 8th, 9th and 10th forms of the *lower secondary non-examination department* or in the 1st to 3rd forms of the *lower secondary examination department* (*Realafdelingen*).

The Amendments passed in 1972 make it possible that the extended compulsory education (8th and 9th forms) may also be fulfilled through instruction *outside* of the '*Folkeskole*', for example as through courses at continuation schools and youth schools. (Note: under very special circumstances pupils can begin vocational training after completing the 7th or 8th school year).

According to the new Act of 17 April 1972, the decision whether a pupil (after having been found qualified for promotion from the 7th to the 8th form) should be admitted to the 1st 'real' form is now to be made in consultation between pupil, parents, and school.

*NOTE: In due time, the expansion of the compulsory education years is expected to lead to a comprehensive school (9 basic school years and a supplementary 10th year) envisaging that the 'real' department may be abolished in its present form.*

### 3. Education of the 15 (16) to 19-year-old age group and its divisions

- (a) 8th, 9th (and 10th) school years continued general education with possibilities of differentiation:**

Optional subjects may be studied in 10 weekly lessons in the 8th form, 14 weekly lessons in the 9th form, and 16 weekly lessons in the 10th form. Most choose English, typing, home economics, or workshop activities. Instruction must *not* be vocationally biased. At the termination of the 9th and 10th forms, the pupils may sit for an examination, the *leaving examination* (*Statskontrollerede Prøve* efter 9. eller 10. klasse) for which a certificate is issued. Should they not sit for an examination, they are entitled to receive a report on their aptitudes and attainments.

- (b) 8th, 9th (10th) school years terminating with preparatory technical examination:**

Those who have studied mathematics, physics, chemistry and a foreign language may at the termination of form 9 or 10, sit for the *preliminary technical examina-*

tion (Teknisk Forberedelseseksamen) and, at the termination of the 10th form, for the intermediate technical examination (Udvidet Forberedelseseksamen).

Those who pass the preliminary can continue their studies for the qualifications as technicians, while successful candidates at the intermediate technical examination level may enter technical colleges (Teknika).

**(c) 8th to 10th school years terminating with the 'real' examination:**

Pupils (within the *lower secondary examination department*) are admitted to the 1st form of the 'real' department from the 7th form of the main school according to their abilities and wishes. The 'real' department comprises three forms. The curriculum includes English, German, mathematics, and science subjects. Latin and/or French are optional. Successful candidates receiving the *lower secondary school leaving examination* (Realeksamen) are admitted to several middle-level fields of education, to technical colleges (upon workshop or apprenticeship training) as well as to courses leading to the higher preparatory examination.

*NOTE: Those who have not attended the 'real' department may prepare also for the 'Realeksamen' at day or evening courses for the duration of 1 to 2 years.*

**(d) 2 school years terminating with the higher preparatory examination; access after having passed the 'real' examination or the 10th form**

Courses leading to the *higher preparatory examination* are generally open to any pupil having sufficient educational background. Most have already passed the lower secondary school examination or the leaving examination at the completion of 10th form. Courses leading to the higher preparatory examination (Højere Forberedelseseksamen) are an alternative to matriculation at universities and other post-secondary institutions (established under provision of Act of 8th June 1966). There are no special requirements for entrance to the two-year courses in preparation for this examination, but most pupils have already passed the lower secondary school leaving examination or the leaving examination at the end of the 10th form. Candidates must, however, have completed their 18th year before they sit for the examination. The curriculum comprises a wide range of subjects, regulated through a required number of 'credits' and divided into 4 half-year syllabuses.

Candidates may sit for examination in one or more subject(s) at the time or for all in one examination.

Passes in the higher preparatory examination give access to teacher training colleges and to certain other fields of education. Also it is now possible to gain access to universities and other institutions of post-secondary education provided that the subjects offered for the examination are relevant to the field of study the candidate wishes to pursue at the post-secondary level.

**(e) 8th to 9th (10th) school years preparatory to transfer to the 3 years 'gymnasium' (higher secondary school) terminating with the 'studentereksamen' (or higher secondary school leaving examination)**

Admission to the *gymnasium* is obtained from the 2nd form of the lower secondary examination department (or Realafdelingen—'real' department) on the basis

of a statement issued by the school to the effect that the pupil in question is considered 'qualified' or 'perhaps qualified' for studies at the gymnasium level. About 1/3 of the pupils have, however, passed the 'Realeksamen' before entering.

The gymnasium is divided into two lines: the *language* and the *mathematics lines*. After the 1st g. form pupils are divided according to fields of study into the following branches: The language line: classical and modern languages, and civics. The mathematics line: mathematics-physics, natural sciences and civics.

The final examination at the termination of the 3rd g. form, the *Studentereksamen* (higher secondary school leaving examination), is a matriculation examination giving access to universities and other institutes of higher education. However, entrance to certain faculties is open only to students having passed in particular branches, and students from other branches are obliged to pass a subsidiary examination in subjects relevant to their future field of study.

*NOTE: 'Studentereksamenskursus' (Courses leading to the higher secondary school leaving examination) are provided for pupils wishing to sit for this examination without having attended the gymnasium. Access to such a 2-year, day or evening course is open to students having passed the Realeksamen.*

In April 1972 a *new form of courses* was established at the *gymnasiums* in order to facilitate access to higher education for students whose education in one or more specific fields does not satisfy the demands of the institutes of higher education.

These supplementary courses are open to the following groups of students:

- (1) Students having passed the lower secondary school leaving examination, the higher secondary school leaving examination, the higher preparatory examination, the higher commercial examination or a similar examination. It is furthermore a condition for admission that the student, after having passed final examination in the necessary subjects taught at the supplementary course, fulfills the conditions for gaining access to the relevant institute of higher education.
- (2) The supplementary courses are furthermore open to students who in other ways have obtained permission to study at an institute of higher education on the condition that the final examination in one or more subjects is passed at the supplementary course.

The supplementary courses started in August 1972.

#### *4. Technical and vocational education - 16 to 19-year-old age group 'experimental vocational education'*

At the level of secondary education a distinction is made between *general secondary education* (upper secondary school leaving examination and higher preparatory examination) and *secondary vocational education* which is today covered by apprenticeship training and certain other types of vocational training.

The purpose of general secondary education has been mainly to give access to studies at the post secondary level, whereas vocational education is to lead to further vocational qualifications. A comprehensive reform of vocational education and training has and is continually being discussed and proposed as there ought to be possibilities for transition between the various types of secondary education.

In accordance with the Parliamentary Resolution of 1969 in which it is stipulated that after the 9th year of school it shall be possible for the pupils to continue in the 10th year or *to initiate a broad vocational education*, a special committee had been appointed by the Ministry of Education to revise legislation so as to create a better balance between the vocational education-systems and those of the 'gymnasium'. In connection with this committee, a *Bill for Experimental Vocational Education* was passed by the Parliament in June 1972 with effect as from August 1972.

(a) One of the principles in the new experimental vocational education phase is that the decisions regarding the vocational choice should be postponed for as long as possible. In this way, each person is ensured a realistic background for their decision making regarding a future vocational or educational choice. It will be easier for them at a later period to have access to further education and retraining opportunities. The Bill provides the *initiation of experimental vocational education*, in order to obtain an educational system with a vocational education for young persons, closely connected in structure and contents with the 'gymnasium'. This programme has been so far initiated in the field of trade and business, and in the field of services (hairdressers, tailors, etc.)

A common feature of the experimental vocational education system is to have one year of basic education in which teaching is done in general subjects (civics, languages) and also in subjects common to the entire professional field in question. Furthermore, emphasis is placed on teaching the pupils the techniques of studying, library science, workshop theory, etc. Included is thorough and fundamental information within the vocational area in question.

*NOTE: The education in general subjects is seen from a wish to strengthen elements of development of personality and to create a background for the participation of the young in the democratization processes, as well as open more possibilities of education to them.*

In the technical part of the education, there is a gradual specialization as the students select *successively* the area which is of special interest to them. Vocational guidance becomes thus an important link. When nearing the end of the basic course, the pupils, having received advice from the teachers, choose the special occupation or trade for which they feel best qualified.

Should the pupil not wish to continue within the field in question, he may choose another.

Or else, having completed the short course in a chosen branch, he may work as a semi-skilled worker (specialist worker), or he may choose another post-secondary instruction within technical education. Those who choose to continue the vocational education receive both intensified instruction in vocational disciplines and continued education in general subjects lasting 2 to 3 years.

(b) Furthermore, there are vocational courses, as in the fields of construction and transport offered at the youth schools (Ungdomsskoler) to pupils in the 16 to 18 age group. These last 2 years.

(c) Vocational training courses of 3 weeks' duration for persons over 18 years of age have been organized for actually employed non-skilled workers or for skilled

workers who are obliged to change over to other fields of employment. The trainee must be engaged in actual industrial practice between the courses. At the end of most of these courses, the participants are given the chance to pass a test for which they receive a certificate.

(d) In several trades a course system is organized comprising up to 6 courses enabling the pupil to pass from one course to another with employment between the courses.

(e) There are further *commercial schools* (Handelsskoler) (commercial examination) and the *higher commercial schools* (Handelsgymnasier) (higher commercial examination).

Lessons are offered in day and evening classes.

### 5. Higher education and advanced training

(a) There are four Universities: Copenhagen, Aarhus, Odense and the recently opened University in Roskilde.

*NOTE: The pressure on university education underwent a significant increase, partly on account of the general increase of students and because many short-term training courses (teachers, dentists, etc.) were forced to introduce 'numerus clausus' owing to lack of space, whereas the universities continued to accept anyone holding a school-leaving certificate.*

Much discussion has taken place recently regarding the development of centres for higher education and research in which 'integration' between people of the centre, residents nearby, but also between single disciplines is emphasized. Integration is ensured through 2-year basic courses in various fields on an interdisciplinary level, such as at the University of Roskilde. A student can then choose among a great number of post-secondary disciplines and has better chances of transfer. It has also been recommended to let teachers' training colleges form part of the university centres as well, so that the centres comprise a long series of post-secondary education.

(b) There is an additional wide range of advanced technical training courses at many levels usually taking place at technological institutes (teknologiske institutter) or technical schools (tekniske skoler). Training standards are brought up to date at intervals with industry and new courses of training are continuously being developed.

Advanced education in engineering is provided by the technical University of Denmark, by the Danish Academy of Engineers, and by nine technological colleges (teknika) in various cities throughout Denmark.

### 6. Other forms of formal education

#### (a) Youth schools (Ungdomsskoler)

These are voluntary schools for young people in the age group 14 to 18 years. Youth school instruction may be given in the form of day or evening classes.

Instruction at youth schools may comprise:

1. Special subjects courses such as care of infants and young children, foreign languages, metalwork, etc.
2. Preparatory courses leading to certain lower secondary examinations.
3. Vocational basic training for young people who are not attending schools for apprentices.

*NOTE: On the municipal level, each young person between 14 and 18 years of age receives a yearly specified offer of free attendance at the municipal youth school.*

Special instruction may be provided for young retarded readers and for those suffering from mental and physical handicaps.

**(b) Youth boarding schools (Ungdomskostskoler)**

These schools offer courses of 2 to 10 months' duration. The educational aim is similar to that of youth schools.

**(c) Continuation schools (Efterskoler)**

These schools are boarding schools offering courses the main purpose of which is to provide the students in the age group 14 to 18 years with an all-round, character developing general education. Continuation schools may offer preparatory courses leading to certain lower secondary school examinations.

The majority of continuation schools offer courses of 8 to 10 months' duration.

**(d) Agricultural schools (Landbrugsskoler)**

These schools are residential and their objectives are to give young people a grounding in the theory and practice of agriculture.

**(e) Home economics schools (Husholdningsskoler)**

These schools are residential providing training, theoretical as well as practical, in the field of home economics and also instruction in certain general education subjects. Courses are of 3 to 5 months' duration.

**(f) Evening schools (Aftenskoler)**

Instruction is open to all persons past the statutory school leaving age.

The subjects generally taught at evening classes are civics and cultural subjects, ordinary school subjects and slightly vocationally biased subjects. Facilities may be provided for more systematic studies and also for recreational activities as well as special instruction for the handicapped.

**(g) Evening high schools (Aftenhøjskoler)**

Further education is provided at the same level as the folk high schools.

## **(h) University extension courses (Folkuniversitetsvirksomhed)**

Lectures and expert instruction through various courses are given free of charge to the public regarding generally current topics such as modern science etc.

## **(i) Folk high schools (Folkehøjskoler)**

Particular importance is placed on providing an all-round general education. The instruction does not aim at training the students for any specific vocation nor preparing them for any examination. The main purpose is directly related to character development and creating social awareness. Usually, folk high schools are intended for those above age 18, but there are no specific entrance requirements.

### **III. — Vocational training (outside of the school)**

#### **1. Apprenticeship training (Laerlinge uddannelse)**

Apprenticeship contracts may be entered into between a young person of *not less* than 14 years of age who has completed his compulsory education, and a private firm or enterprise recognized for the purpose of training in an approved field of commerce, office or retail trade, handicraft, or industry in which the practical training is to take place.

Training is obligatory for persons wanting to become skilled workers. A characteristic feature of vocational training in Denmark is that instruction at technical and commercial schools is accompanied by practical training in workshop or industrial plants.

*Both* aspects outside and inside of school will be discussed below as they are not able to be separated in an analysis.

#### **(a) Apprenticeship within commerce, office and retail trade**

Applicants for apprenticeship training must have passed the examination at the termination of the 9th form of the public school or any other corresponding or higher examination.

The period of training is from 2 to 4 years depending on age and previous education. In addition to the practical training in the office or shop of the person or firm responsible for this training the apprentice must attend a Butikslæringskole (*retail shop apprentice school*) or a Kontorlæringskole (*office-apprentice school*), for a total of 720 to 800 lessons of day school instruction as preparation for passing the Handelsmedhjælpereksamen (*commercial assistants examination*) if they have not already passed the Handelseksamen (*commercial examination*).

After having finished the apprenticeship training period and passed the Handelsmedhjælpereksamen the apprentice will receive a Laerevrev (*certificate of completed apprenticeship training*).

Government-subsidized commercial schools, may be classified into the following categories according to their scope and programmes offered:

— *Schools for shop and office apprentices:*

The schools for apprentices are to provide the theoretical instruction as prescribed in the Apprentices Act. This instruction is compulsory and is terminated through a State-controlled leaving examination, the so-called shop and office assistants examination.

— *Schools for shop and office assistants*

The period of study is one year, and instruction is given as day courses. The pupils are being prepared for a State-supervised examination, the commercial examination, which may be passed in any one of 4 branches: (i) general, (ii) accounting, (iii) languages or (iv) shop branch.

**(b) Apprenticeship within handicrafts and industry**

Apprenticeship training of young people as craftsmen and skilled workers in handicraft and industry usually begins between the age of 14 and 18 when 7 to 10 years of general compulsory education is completed. If the employed person is under the age of 18 years and is engaged to perform skilled work, an apprenticeship contract in writing is compulsory. 'Skilled work' is defined as work in any field which is recognized in the law as a trade (skilled occupation). There are about 100 recognized trades and many of these are divided into sections with sub-branches so that an apprentice in fact may choose among some 160 educational fields.

The length of the apprenticeship training must be specified in the contract. The general rule is that the training period must not exceed 4 years.

The training period may be extended in case of illness, if the apprentice wants to participate in a theoretical course, or he wants supplementary education in a foreign country (up to 1 year). In other cases the National Apprenticeship Council may allow exceptions if they judge it appropriate. Rules for remuneration for the entire training period must be stipulated in the written contract. Wages are usually fixed as a certain percentage (progressive in relation to the number of years employed) of a journeyman's wages. The journeyman's wages are negotiated through collective agreements made by the Employers' Confederation and the trade unions.

The employer is obliged to pay for the instruction of the apprentice at the technical school, the expenses for the journeyman's test and also for expenses in connection with the health insurance of the apprentice.

The apprentice has a right to vacation comprising 18 week days (with full pay) in each year of the whole period of apprenticeship.

The first 6 months of the training period are considered as being a mutual trial period for both employer and apprentice. If the apprenticeship commences with technical school attendance the trial period may be extended up to the time spent at school.

Apprentices are released with full pay during certain periods each year of their apprenticeship to attend technical schools. The curriculum of the technical schools includes both practical and theoretical instruction. The length of the period of training varies from 3 weeks to 16 weeks of full-day school attendance.



The apprentice training period laid down by contract shall be utilized in such a way as to give the most comprehensive training possible. At the end of the specified time the apprentice must take a journeyman's test. Evidence of the test must be presented to the apprentice.

If the apprentice is unable to pass the test through negligence on the part of the employer to fulfill the contracted training, the employer is liable for compensation to the apprentice. The amount is fixed according to settlement by the Arbitrator's Court.

*NOTE: At the latest revision of the Apprenticeship Act in 1956 several innovations were introduced:*

- *It was made compulsory for all apprentices to attend technical schools.*
- *The education at the technical schools was changed from evening schools to day schools.*
- *The education at the technical schools is given in classes for apprentices at the same level of training.*
- *The classes are attended by apprentices from the same or closely related trades.*

## *2. Training of technicians*

The training of technicians takes place at technical schools, and the instruction given aims at qualifying the students for the following functions:

Construction, development and research; production, operation and maintenance; quality control, testing and measuring; administration.

The training of technicians is organized in two main groups intended respectively for:

- (1) young people without any previous practical training; and for
- (2) skilled workers in special fields of trade and handicraft (not treated in this report).

Entrants to courses for technicians must ordinarily have passed the *preparatory technical examination* at the termination of the 9th form of the public school or the final examination from the 'real' department (Realeksamen).

### *Example:*

*Technical assistants* (draughtsmen, calculators and engineering assistants).

These qualifications are obtained through attending a two-year sandwich course with two six-months theoretical courses interrupted by 12 months practical training in industry or in a construction enterprise.

Students who have already been employed in industry or in the building and the construction trades as unskilled workers may qualify through evening courses over a period of two years.

Many other kinds of 'sandwich courses' and theoretical course schemes are organized for the numerous technical branches.

### 3. Further training schemes

- (a) Further training opportunities exist within the beforementioned *vocational basic training schemes* offered by the *municipal youth schools*:

These young persons who accept this free offer, have a legal right to education in the subjects and streams of their own choice:

- *General education, youth school courses;*
- *Courses leading to an examination;*
- *Vocational basic training.*

During the lessons the main point is the achievement of practical experience by the pupils.

Lessons are reserved for general orientation, labour relations, and labour safety as well as on vocational training proper.

- (b) The 'experimental vocational education' has been discussed under point II.

### IV. — General development and aims

Denmark has an excellent record of achievements in innovative school models and integrative teaching experiments as well as in adult and leisure education.

In recent years efforts have been made on all levels to render the Danish educational system as flexible as possible. A common feature in the amendments and proposed reforms is the promotion of integration and social awareness, among individual disciplines and among parts of the system. Transition from non-academic to academic studies is for example to be made feasible.

Some of the important proposed changes or new concepts follow:

- The concept of the 'toy library' (where children may borrow on a regular basis educational toys), that of the 'adventure playground' or the 'democratic school' have been unique examples of self-expression and self-knowledge placed above academic qualifications.
- At Rødovre, a suburb of Copenhagen, the Ministry of Education has established, for example, a *youth town*. The town contains shops, workshops, agricultural laboratories, schools and housing accommodations for the children. The 'youth town' is intended to serve as the experimental centre for the classes 8 to 10. During their stay there the pupils are divided into 'families' of 4 persons who live together at the centre. There is theoretical as well as vocational guidance and many arrangements for teamwork. 3 schools, on the level of gymnasium are operating on a basis of self-democracy where students and teachers operate on equal levels and co-determine the policy of the school and content of the courses.
- Denmark's principal export can be called the 'folk high school' which has spread to other countries in Europe in more or less variant forms. The characteristic feature is its chief concern with subjects of human and social appeal to the individual. One of the most well known is People's College at Elsinore attracting many international students. The College has been described as a

'school for life, not for a position in life' and does not ask for academic qualifications nor does it conduct examinations.

Many of the 'folk high schools' offer for part of the year short courses on a weekly basis for the level of adult education.

- Great importance has been attached to short basic courses, teaching of 'techniques of study' and methodology so that education can continue at all stages of life.
- The Leisure-Time Education Act (1968) opened increased opportunities for example, for leisure-time students to pass examinations for entry to technical establishments (where, thereafter, one may also qualify for post-secondary technical education).
- Regarding the currently proposed reforms on the reorganization of compulsory education, the emphasis has been placed on making the 'Folkeskole' in the future a school for general education *without* a vocational bias. It should comprise both primary and lower secondary education including the 9 years of compulsory schooling and a further year.

Some main points of the present Bill are as follows:

- The pupils of the same year will stay together throughout the whole Folkeskole for the 'common core' main subjects.
- All pupils would be eligible to enter the gymnasium.
- Markings will be replaced by written subject reports.
- Contemporary social studies will become compulsory in the upper forms of the folkeskole, and compulsory environmental and consumer education will also be introduced in these forms.
- New optional subjects will be introduced, such as computer training, psychology, sociology, economics and career advice/occupational guidance.
- Collaboration between the school and the parents will be increased, and teaching will be planned jointly by the teachers and the pupils.
- The teaching of religion should communicate knowledge and not take the form of a sermon.
- In order to help pupils realize their personal qualifications and interests, there have and will be organized 'practice in the trade' arrangements of 1 to 2 weeks as well as visits to certain other undertakings.
- The 'experimental vocational education' scheme is expected to accelerate in development and student enrolment. It hopes to depart from a past concept whereby young people were placed *from the start* of their training within rather narrow confines of the educational system.

## ANNEX

### Special schools

Special institutions for mentally and physically handicapped children are provided either in special classes or in special schools at all levels of Danish general education.

Handicapped children can, at all levels, remain and be instructed in the ordinary school environment if their parents so wish and are able to take care of the children at home. Special State schools exist for those not attending special instruction in public or private primary schools. Extensive advisory work is also carried out on behalf of children below school age. All blind and deaf children are subject to general compulsory school attendance, and can get advanced education at special schools where they also receive speech training. Special care covers a range of medical, educational, and social provisions and includes special treatment, vocational training, foster care, personal guidance, and maintenance support.

‘Observation instruction programmes’ organized by school psychology advisory services and cooperation with the Children and Young People’s Service ensure that all handicapped pupils are given optimal educational opportunities corresponding to their capacities and talents.

It is to be noted that parents who keep severely handicapped children at home can obtain financial assistance to cover extra costs resulting from their handicap. Homes for spastic children are in Odense and Copenhagen and residential schools for physically handicapped children (Geelsgård Kostskolen) alongside many modern therapeutic children centres provide the greater part of special care in this field. Many local child-welfare committees offer assistance and can even make provisions for domestic help where necessary—whether due to the parents’ conditions or the children’s. An important assistance to the child and youth welfare committees when making decisions with regard to the provision of support is given by the 8 *child guidance clinics* which have been set up in various parts of the country.





