



# Vocational training

*Special edition*

**Linking work and training  
for young persons  
in the European Community**

# Vocational training

## Bulletin of the European Centre for the Development of Vocational Training

# CEDEFOP

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# 'It can be done . . .'

There are, at present, some 9 million young people between the ages of 15 and 25 living in the Federal Republic of Germany, including West Berlin; of these about 440 000 come from abroad, mainly from Turkey, Greece, Spain, Italy, Portugal and Yugoslavia. Here we are concerned with their situation at school and in the world of work.

What are the factors which, positively or negatively, affect their prospects of not merely finding their feet in the Federal Republic but taking part in the life of the nation as fellow-citizens enjoying equal rights?

The demand is for equal opportunity, to quote the jargon. But there are, alas, obstacles in the way of its fulfilment, often in the form of problems which arise for these young foreigners in pre-school institutions, at school, during vocational training and at work, and in their leisure time. This cannot be attributed solely to negligence or lack of interest on the part of the German authorities and the German people — there are also objective difficulties. These weigh upon the individual since he is, or feels himself to be, socially underprivileged.

## Language difficulties

Too little information about living conditions in the host country

Prejudices held by people in the 'new country'

The search for work entails much effort and chance plays too great a part

Too little contact with young Germans

The special legal and political situation

Uncertainty as to where one will live — in the Federal Republic of Germany or in the homeland

Differing education systems

Growing up in differing cultures

Differing experiences at school and in the family home

One parent, or siblings, had to remain 'at home'

Nevertheless: **It can be done . . .**

Certainly no one can produce patent remedies. There are too many differences in the directions their lives take, in the degrees of success and failure at school and at work, in their experience of German society and in the plans these young people and their parents have for the future.

Researchers have established that there are three groups and they classify the young migrants according to:

(1) the extent to which they have been able to adjust to living in a 'foreign' country;

There are, in all, about one million foreign children and young persons in the Federal Republic of Germany and West Berlin. Our investigation, however, was confined to the 15—25-year-old migrants who wish to live, learn and work in the Federal Republic of Germany.

We questioned:

**Greeks  
Italians  
Yugoslavs  
Portuguese  
Spaniards  
Turks**

Figures can hide a great deal.  
Figures also obscure the fate of the individual.

Nevertheless:  
Figures, even when produced by statisticians, can give us a lead, indicate how things can be improved.

Or:  
How it can be done.

This short informative summary is based on the results of an empirical survey carried out by the European Centre for the Development of Vocational Training (CEDEFOP) together with the Federal Institute for Vocational Training (BIBB).

The GEWOS-Institut, Hamburg, was responsible for conducting the interviews and evaluating the data.

In undertaking this survey CEDEFOP was carrying out its tasks of contributing to the development of research and encouraging and supporting initiatives.

The research reports will be published in 1981.

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**Young migrants who are very well integrated are:**  
Schoolchildren and those undergoing vocational training  
Yugoslavs.

# A great deal depends on how much German Asoman, Giovanni and Milovan know and how well they understand, speak and write it

We have already met Asoman, Giovanni and Milovan. To refresh your memory: Asoman, from Turkey, is 15 years old and in the tenth class of a Hauptschule.

'German presents no difficulties for me because I have been at school here long enough. This means that one no longer feels so strange here.'

Seventeen-year-old Giovanni, from Italy, is a waiter in a pizzeria.

'My German is still very bad, but I can understand customers' orders. My poor German is probably due to the fact that I never really went to school here, and at home, or with friends, we speak only Italian.'

Milovan, aged 22, is from Yugoslavia and a skilled worker.

'As I've already mentioned, I managed to get through Hauptschule with difficulty. I learnt most of my German through the "Sprachverband für Ausländer" (Language Association for Foreigners). I still attend certain courses and that's a great help, especially when one has been back home on holiday.'



## Much depends upon which advisory bodies Serdar, Carmen and Mirko have consulted

We also know Serdar, Carmen and Mirko. Serdar, from Turkey, is 19 years old and unemployed.

'I would have preferred a proper skilled occupation but nobody gave me any help. My father wasn't very sure about things either, and in any case he had to see about a new job himself. The jobs I did have I found for myself.'

**Carmen**, also 19 years of age, is an apprentice hairdresser and comes from Spain.

'Maybe I would have preferred another kind of training, something in the clerical line, or other office work. But they told me at the Employment Office that I would have quite good prospects as a hairdresser, even though many German girls want to take up this occupation. Incidentally, I was quite well advised at the Employment Office and am pleased with things as they are today.'

**Mirko**, a 20-year-old Yugoslav, works as a motor mechanic.

'I was lucky. It's true that I did seek out a vocational guidance centre, but I knew from the outset what I wanted to do. Nowadays, when I listen to my fellow-countrymen and other foreigners, I hear them say time and again that they don't really know what they could take up in the way of a job or vocational training. It certainly isn't easy. How is one to find one's feet quickly in completely strange surroundings?'

German language—difficult language.

Understand German well.

55 %

Speak German well.

50 %

Write German well.

39 %

It is apparent that: those undergoing vocational training and pupils at general-education schools have an above-average knowledge of German; they have attended German schools longer than the others.

The older a young migrant was when he came to Germany, the less knowledge of German he has.

The youngster with good German has no difficulties at school or at work.

Those having particularly good German are:

Jugoslavs  
Spaniards

78 %

Portuguese  
Italians

50 %

Greeks

67 %

Turks

43 %

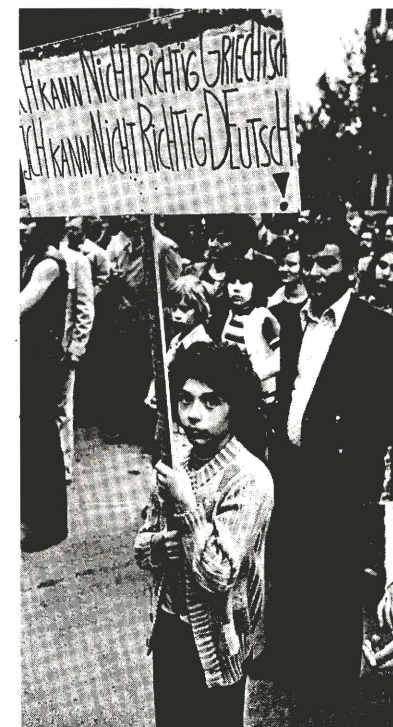
Jugoslavs and Greeks take more advantage of the facilities offered by the language association 'Deutsch für Ausländer' (German for Foreigners). The courses are open to all.



Success at school, in vocational training and at work, and, finally, in everyday life, is largely dependent upon knowledge of the language of the host country. The person who speaks good German will not be in such a hurry to return to his homeland. He finds it easier to feel at home among the 'foreigners'.

Here a great deal can be done: in the schools, in the factories, in the continuing education establishments.

And, finally, it depends on whether young Germans and their parents are prepared, once in a while, to chat with an Italian, a Turk, or a Greek in the street.



**More information is needed!**

Contact with German fellow-citizens could be facilitated.

Decisions about which school to attend or which vocational training course to choose would no longer be left to chance.

The gulf between the homeland and the strange new environment could be bridged.

To achieve this, more and better advice centres for foreigners would be needed. The personnel at such institutions should be familiar with the fields of education and employment, and also be able to give guidance on everyday affairs and the use of leisure time. Thus it could be done — if the young migrants and their parents took advantage of such facilities, inadequate though they may still be.

Only 43 % of the young migrants know of an advice centre for foreigners.

63 % of the workers and salaried employees feel they are inadequately informed about employment and training opportunities.

Nearly half of all the young unemployed feel they are not given adequate advice.

22 % of the young people received no guidance from an official source and only one-fifth of the total were given any parental support.

Only 28 % of those interviewed were given advice by the employment offices. Jugoslavs, Greeks and Spaniards made more use of these facilities than, say, the Italians.

Mirko is among those who seek out and make use of advice centres.

But over one half of all young migrants are given little or no information about the opportunities open to them.

**Carlos**, 18 years of age, was born in Spain. He lives in Hamburg with his parents and two other children.

'When I came to Hamburg with my parents I was just 8 years old. At first I had difficulties at school as I hardly understood any German. But after two to three years I did so well that the teacher told my parents I could try grammar school (Gymnasium). And I'm still there. I want to take the university qualifying examination (Abitur) and, if possible, go on to university, but I don't yet know what I would like to study. Naturally I am a Spaniard — like my parents and the other children — but I feel just as much at home in Hamburg as I do back in Cartagena, which I have really only visited during the school holidays these last ten years.'

**Mirko** is 20 and was born in Yugoslavia; he lives with his parents and younger brother in Esslingen (Baden-Württemberg).

'In 1970 my father left Novi Sad to go and work in Esslingen. My mother and I remained in Yugoslavia for two years as my brother was still very small and I still had to attend school. When we joined my father in Esslingen in 1972 there were, of course, a lot of problems — at school, in connection with the flat, the whole upheaval. But with a bit of effort I managed to get my Hauptschule leaving certificate (lowest level of secondary education in Germany) and then went on to serve my apprenticeship as an electrical fitter. And now I am very happy in my job.'

**Ibrahim**, aged 19, was born in Turkey and lives with his parents and three sisters in West Berlin.

'I came to Berlin five years ago. School was no use to me here — I went to school long enough in Turkey. I wanted to work and earn money. That was not easy. Time and again I was told that I should learn German for a start. Why? Other Turks manage without it. Now I've been with the town cleansing department for two years; there are other Turks working there too. There is a lot of friction between us and the Germans; they don't want to understand us.'



M. Volmer

## Much depends on whether Asoman, Joannis and Giovanni attend school, and which one they attend

**Asoman**, aged 15, is a Turk and for the past ten years she has been living with her parents in Siegburg. She is now in the tenth class of a Hauptschule.

'First of all I went to primary school for four years, like all the others. I enjoy school so I want to have my Hauptschule leaving certificate and then, perhaps, go on to a Realschule (secondary modern school). Perhaps I shall take up an apprenticeship, maybe as a hairdresser—I think I would like that. I feel one must have a qualification in order to get on in life.'

	Average age on entering Germany	Average duration of stay (years)	Proportion born here (%)
Greeks	10,2	7,4	9,0
Italians	12,8	8,5	7,1
Yugoslavs	12,9	7,7	2,5
Portuguese	12,8	6,7	—
Spaniards	8,7	10,7	13,6
Turks	13,3	6,3	0,3
Overall	12,4	7,4	4,1

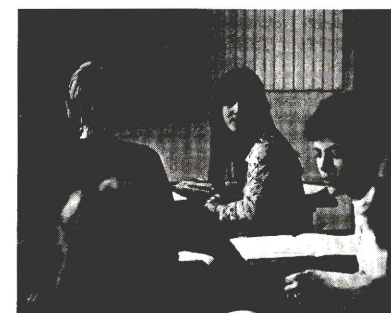
Taking the average, around 4 % of the 15—26 year olds have been born in the Federal Republic. About 95 % came to Germany from their native lands.

Age on entering Germany	Proportion attending school and acquiring a leaving certificate (%)
born here	82,0
up to 5 years	73,0
5— 9 years (inc.)	59,2
10— 14 years (inc.)	42,9
15— 19 years (inc.)	23,7
20 years and over	—
Overall	50,7

21 % of the young migrants attended school in their countries of origin for eight years or longer and a further 11 % for at least five years.

In the Federal Republic of Germany

of Spaniards **73 %** of Turks **50 %**



G. Jakobi



G. Ludwig



W. Bauer

**Carlos, Mirko and Ibrahim: three examples which illustrate that:**

There are considerable differences between the various nationalities as regards the age at which youngsters entered the Federal Republic.

The earlier a youngster comes here, the more successful he is at school and at work.

Those who attend a German school from the very beginning (i. e. from the age of 6) have almost the same opportunities as German children.

In contrast, those who arrive in the Federal Republic when only two or three years of compulsory schooling remain to them have an extremely difficult time.

The earlier a youngster comes here, the smoother will be the integration process in his new environment.

Young foreigners in the Federal Republic of Germany should not simply be categorised as *the* young foreigners. Measures to promote them in the school must be correspondingly differentiated.

It is clear that:

Young foreigners and their



P. Glaser



G. Jakobi

Reply	Attitude towards on-the-job training	Attitude towards vocational school
enjoyable	43 %	35 %
fairly good	34 %	28 %
necessary	14 %	19 %
difficult	1 %	4 %
would like to stop immediately	2 %	1 %
no reply	14 %	16 %

The majority of girl migrants want to train as hairdressers.

Well over 70 % have no difficulties at work, or will not admit to any.

Young migrants are particularly isolated in the vocational schools. Over 60 % of them find they are the only foreigner in a class, or that there are one or two others at most. The figures for those having fellow-pupils of their own nationality are

Greeks	20,7 %	Portuguese	46,7 %
Italians	50,8 %	Spaniards	34,8 %
Yugoslavs	30,3 %	Turks	63,5 %

## Much depends upon whether Giuseppe, Milovan and Serdar find a job or become unemployed

**Giuseppe**, now 21, came to Lüneburg at the age of 16 and his parents still live in Italy. He is married to a German and works in the construction industry.

'When I came to Lüneburg, all I wanted to do was earn money. Vocational school, or whatever it's called, didn't interest me. Friends then helped me look for work. After doing various jobs I came, by chance, to a building contractor and he wants to keep me on. Now I'm enjoying the work.'

**Milovan**, aged 22, is a Yugoslav who has lived in Münster for the past ten years. He is married to a fellow-countrywoman and an electrical fitter by trade.

'Yes, I'm now a skilled tradesman and earning good money. Getting my Hauptschule certificate cost me a lot of effort but I was then able to find a training place. And today I am where I aimed to be. If things go on as they are I shall probably remain here. I've been lucky — with my flat too. But only a few have that kind of luck!'

**Serdar**, Turkish, is now 19 years old and came to the Federal Republic of Germany at the age of 16. His father changed jobs twice and they are now living in Frankfurt-on-Main. Serdar is unemployed.

'I speak hardly any German. When I arrived here I was no longer required to attend school and my father didn't think it very

Unskilled workers and salaried employees form the largest group among the young migrants (65 %). They came to Germany later than those attending school. The unemployed form 5 % of the total.

75 % are unskilled or semi-skilled workers.

Most of them enjoy their work, or at least find it tolerable.

Least contented with their work are the young Spaniards and Turks.

Yugoslavs and Spaniards form the largest proportion of skilled workers. Salaried employees are primarily Greek and Spanish. They arrived in Germany earlier than the youngsters from the other countries and have also attended school here longer.

A leaving certificate, such as that gained at a Hauptschule, is worthwhile. But only 44 % of those who have attended school here acquired this.

Of the unemployed youngsters who attended school here, only 29 % have a leaving certificate. Nearly a quarter of them have already been unemployed at least once before. At just under 8 % the unemployment rate is very high.

The biggest handicap in the search for a job: the German language.

60 % of the young unemployed consider further vocational

The high proportion of unskilled or semi-skilled workers gives pause for thought. This situation seems extremely difficult, to say the least. But again, one cannot distribute any patent remedies to improve matters.

Here again it is clear that:

The earlier a young foreigner enters the Federal Republic, the better his chances of avoiding unemployment.

Of the unemployed youngsters who went to school here, only something over 28 % gained a leaving certificate. So: more opportunities for the belated acquisition of a leaving certificate.

Those who entered the Federal Republic when they were no longer of school age are having a particularly difficult

might go to Greece one day.'

**Giovanni**, aged 17, is an Italian who came to Cologne with his parents six years ago. He ought to attend vocational school but prefers to work as a waiter in a friend's pizzeria.

'School really is the end. Nothing but difficulties with the teachers, because of the language of course, and because of my temperament. A leaving certificate? No, I didn't try for that. What for? I had already been to school in Italy! I did start at the vocational school but soon gave it up; I was the only Italian and hardly understood a word. In some subjects I simply couldn't follow a thing and my parents, naturally, couldn't help me either. So I'm skipping school altogether. I'll get by as I am.'



DIE ZEIT

...to be an ordinary pupil without leaving certificates from a secondary modern school, 21 % even hoping to pass the Abitur (university qualifying examination).

Migrant schoolchildren really enjoy school (73 %).

94 % of them want a leaving certificate in order to 'get on in life'.

Contrary to all expectations and assumptions:  
12 % of all schoolchildren attend a secondary modern school (Realschule);  
10 % of them attend a grammar school (Gymnasium).

Nearly all the pupils find one or more subjects particularly easy: these are mainly natural science/mathematics disciplines.

Only 24 % of the schoolchildren have received instruction in their mother tongue.

Only 45 % of the young foreigners have gained a Hauptschule leaving certificate.

Nearly 70 % of them have experienced difficulties at school.

82 % of all young migrants have already attended school in their countries of origin:

Greeks	<b>72 %</b>	Portuguese	<b>86 %</b>
Italians	<b>80 %</b>	Spaniards	<b>84 %</b>
Yugoslavs	<b>75 %</b>	Turks	<b>70 %</b>

36 % have left school *without* a leaving certificate.

Only 44 % of all young migrants who are required to attend vocational school actually do so.

than has hitherto been the case.

Contacts between school and parents must be intensified.

Opportunities must be created, and further education facilities provided, for those young migrants, in particular, who are no longer required to attend school but who wish to secure, say, a Hauptschule leaving certificate.



DIE ZEIT

# Much depends on whether Mehmet, Nikos and Carmen find a training place and attend vocational school

**Mehmet**, who is 17 and comes from Turkey, has been living in West Berlin for four years with his parents and three other children.

'After my parents fetched me here four years ago I attended school for another two years. But I didn't gain a leaving certificate. Then I began to look for a training place, as my teacher had advised. But, much as I wanted it, I couldn't find an opening. Most of them told me I should learn German first. Now I'm an unskilled worker, but I'd still like to learn a trade.'

**Nikos**, an 18-year-old Greek, came to Stuttgart with his family ten years ago. He is now an apprentice motor mechanic.

'Yes, I came to Stuttgart rather early, attended the Hauptschule and gained my leaving certificate; I made enquiries in good time as to what kind of work I could do. That was at the vocational guidance centre. I liked working with cars best. I can find work as a motor mechanic in Greece, too, if I return home one day. I love the on-the-job part of my training but don't enjoy vocational school so much.'

**Carmen**, who is 19, comes from Spain. Her parents brought her to Düsseldorf seven years ago and she is now training to be a hairdresser.

'When I joined my parents in Düsseldorf I first of all had to work very hard at learning German, in order to find my way about here. That really was a slog. Then, after a lot of searching, I found an opening in a medium-sized hairdressing salon on the outskirts of the city. I feel I am learning a great deal there. My colleagues are nice to me, too, but they do talk about me sometimes, because I'm a foreigner. When I go to vocational school I feel very much alone; there is only one Spaniard in my class. Perhaps something could be done there.'

Greeks, Yugoslavs and Spaniards are particularly interested in undergoing vocational training to become skilled workers.

The number of training places is inadequate, but the desire to qualify for specific occupations is there.

Trainees have come to Germany at a relatively early age, therefore their prospects of admission to school and vocational training are very good.

A surprising number of young migrants conclude a training contract even though they have no leaving certificate.

61 % of those who have not undergone vocational training here are very keen to do so.

Lack of German is a particular handicap in the search for a training place.

As with German youngsters, the most popular occupational choice is motor mechanic, followed by electrician (installation and maintenance), engineering fitter-machinist and mechanic.

Over 45 % of all trainees have spent ten years or more at a German school. Over 92 % of them have attended a German school.

In the choice of occupation, the most important source of information and advice is the official vocational guidance service. Those undergoing vocational training are the best informed in these matters.

The majority have chosen their training occupation because they are interested in it, or because they believe they can also practise it back in their homelands.

On-the-job training good, vocational school not so good.

Only 44 % of all young migrants who are required to attend vocational school actually do so.

It is estimated that: three-quarters of all young migrants fail to find a training place. Yet a remarkably high proportion of them want to undergo vocational training.

The relatively high drop-out rate among those who have embarked on vocational training (one-fifth!) gives food for thought.

Here we must repeat: no patent remedies.

There is no such thing as *the* young foreigners!

Improve their knowledge of German

More vocational preparation measures

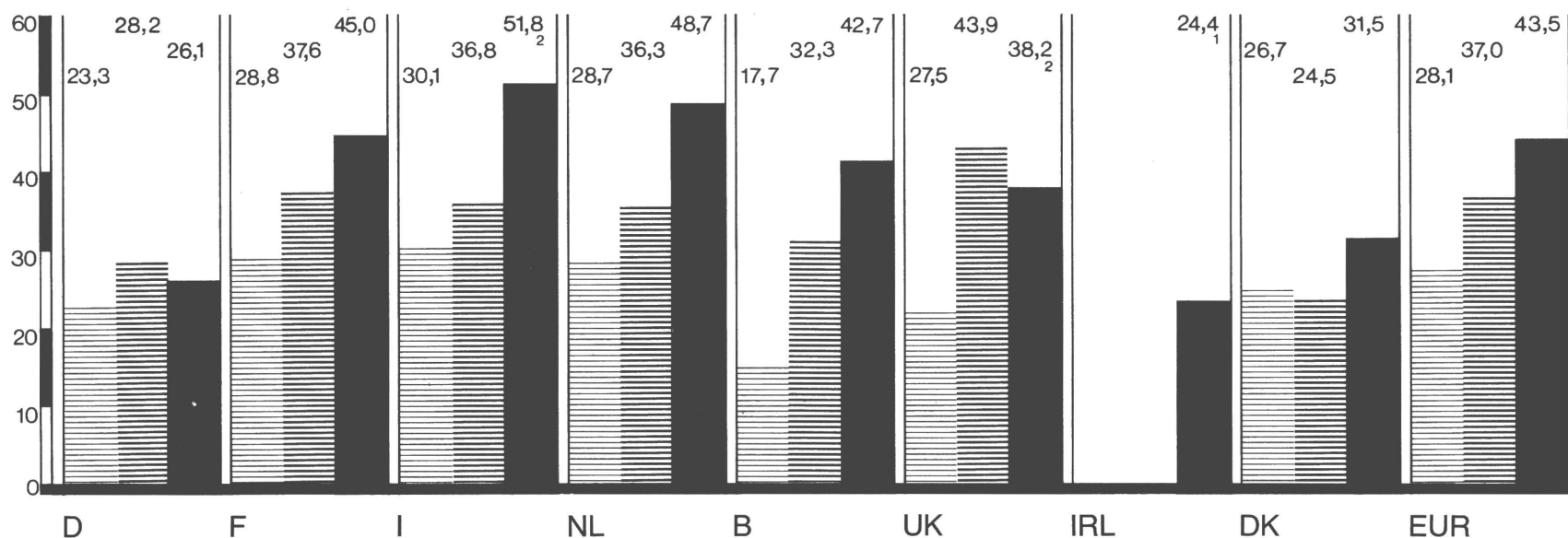
More opportunities for more mature young migrants too

More language and promotion courses in the vocational schools



# Youth unemployment in the European Community

in 1979 and its development since 1973  
 young persons under 25 years (mid-1979 or September 1979)  
 as a percentage of total unemployment



<sup>1</sup> January 1980.  
<sup>2</sup> October 1979.  
 Source: EUROSTAT.

1973 1976 1979

## Linking work and training for young persons in the European Community

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# Editorial

During the course of the project on 'Youth unemployment and vocational training' (cf. Bulletins 2/77 and 2-3/78) and the discussion of the opportunities for solving the problem, it became clear that:

- there must be a considerable expansion, both quantitatively and qualitatively, in the range of opportunities for training which are available to early school-leavers; this should be unrelated to any short-term requirements of the labour market;
- it has not been possible up to this point in time for the 'school' to provide both training and working experience aimed at giving realistic preparation for a trade simply on the basis of its own facilities;
- the predominantly short-term and economy-related vocational preparation and work-creation measures ought to be coordinated around a basic concept which will take far more account of the structural problems encountered by young people during their transition from school to a working environment;
- a higher degree of commitment must be encouraged amongst companies in respect of the employment, welfare and initial training of young people, but without causing the basic academic skills such as reading, writing and arithmetic to suffer; and finally
- it should also be possible in the medium term for older employees to have access to or to return to educational opportunities, since initial vocational training is becoming increasingly inadequate for their entire working life.

These and other socio-economic factors seen against a background of the general employ-

ment situation and the specific integration problems faced by young people as a whole led to an initiative on the part of the Commission of the European Communities (cf. Communication from the Commission to the Council dated 29 October 1979 entitled 'Linking work and training of young persons in the Community') and to the resolution passed in Council on 18. 12. 1979, which was accompanied by a statement on the problems of the redistribution of work.

The European Centre for the Development of Vocational Training (CEDEFOP) made its own specialist contribution to the preparatory work involved in this initiative and is continuing to assist the Commission by publishing this Bulletin. On the one hand this is intended to provide all those concerned with additional information on the subject, and on the other hand to examine the extent to which attempts at establishing and developing such comprehensive opportunities involving linking periods of work and training<sup>1</sup> exist at national level. In addition to the countries of Denmark, the Federal Republic of Germany, the Netherlands and Luxembourg, where a highly homogeneous and extensive system of education in the sense of alternance following the period of compulsory schooling already exists (but which cannot be regarded as satisfying every quantitative and qualitative requirement), a large number of different types of training facilities are to be found here and there in the remaining countries which could be included within the concept of 'alternance'.

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<sup>1</sup> Due to the difficulty of finding one word to translate the French term 'alternance' we shall use both the French original and the English translation 'linking work and training' in this Bulletin

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However, these are the exception rather than the rule, particularly as far as the opportunities for school-leavers who do not proceed to any form of vocational training are concerned.

Thus we may observe in Italy, France, Belgium, Ireland and in the United Kingdom a range of model experiments, regional or local initiatives, or even short-term economic measures, which seek to combine the system of formal education represented by 'school' with periods of vocational training or practical experience. In spite of this, these countries still offer an inadequate level of opportunity, which is the reason why a relatively higher proportion of young people still do not receive any vocational preparation or training after having completed their compulsory schooling. This in turn leads to an increase in the problems of integration faced by many young people.

As far as training for more highly qualified professions is concerned, e.g. within the field of higher education, these countries offer a wide range of opportunities in which theoretical and practical training are combined together (e.g. in the polytechnics in the United Kingdom and in the Instituts Universitaires de Technologie in France). However, opportunities of this kind are not as a rule available to early school-leavers.

Consequently, the initiative approved by the Council on 22 November 1979 may only be regarded as a step in the direction of the quantitative and qualitative widening of the opportunities for vocational training open to young people. It will be necessary for additional steps to be taken in order to ensure that progress

continues to be made in this direction, e.g. the improvement of the social and material position of young people engaged in vocational preparation, training and further education; the distribution of the financial load between the State and the private sector on the one hand and between companies which presently make unequal training provision on the other hand; and the extension of suitable opportunities for employees who had previously not been in a position to benefit from such opportunities and who at a later date may wish to return to education and training.

By introducing large-scale changes and by taking into consideration the interests of all those concerned, alternance can facilitate the transition from school to the working environment and the possibility of returning to further vocational education and training for many young people and employees, and can provide many young people with improved chances for the future and with a genuine alternative to unemployment or dequalification on the grounds of unfamiliarity with technological developments and lack of perspectives; this is on condition that the necessary measures specified in the Resolution of the Council have been implemented.

# Preliminary considerations on alternating training <sup>1</sup>

## Summary of situation existing in 1979

- Expansion of general education structures until the end of the 1960s/beginning of the 1970s.
- Hardly any expansion of vocational education, initial vocational training and further training during the same period.
- Since the beginning of the 1970s, decline in investment by private industry in most countries – due to business-cycle and structural factors – in initial and further vocational training owing to the economic situation and also to rationalization and automation (changes in the structure of the economy), e.g. decline of labour-intensive production methods in industry.
- Increase in the number of school-leavers due to population trends and consequent increased demand for training places and jobs.
- Increased demand for education in general, and in particular for vocational and further training due both to population trends and to the tight situation on the labour market.
- Also an increased demand for jobs and training places by girls and women.
- In addition, in some countries, the problem of the second generation of migrant workers, whose integration problems are even more serious.

## Summary of Member States' strategies hitherto

Action to ease the transition from school to work has so far tended more to be based on short-term economic considerations than to take account of structural change:

- Vocational preparation measures taken by the Labour Administration and non-governmental bodies.
- Extension of compulsory schooling and increasing the incentives to remain in education.
- Financial incentives for firms to employ and train young people.
- Expansion of the Labour Administration: vocational guidance, careers development and mobility incentives.
- Increasing unemployment benefit and/or social welfare benefits, etc.

However, structural measures to ease the transition from school to work have been lacking:

- Only slight quantitative increases in the 'normal' vocational training provision; often, qualitative deterioration in the provision of initial and further vocational training (short periods of training, practical training without intensive technical instruction, etc.).
- Hardly any quantitative and/or qualitative improvement in the supply of training places in the form of in-company administration.
- Occurrence of a 'skilled labour gap' in spite of the high level of unemployment due to polarization of the labour supply: on the one hand, highly qualified staff who have received higher education, and on the other poorly qualified workers who have left school too early without prospects of subsequent vocational preparation and training, and unemployed young people, women and handicapped persons displaced to the status of marginal groups.
- Little high-quality training in the expanding tertiary and quaternary fields.

## Necessary structural measures

- Substantial expansion of the provision of vocational preparation, training and further training for school-leavers, with particular reference to women and young foreigners
- Improvement of material and social protection for participants in vocational training and further training.
- Development of an integrated scheme for renewal of initial vocational training and further training as a link between the educational and employment systems, more attention being paid to training for the tertiary sector of the economy.
- Integration of special measures for vocational preparation for handicapped persons, not readily employable persons and problem groups into the 'normal' provision for vocational and further training in the educational and/or employment systems.
- Coupling of work with learning at the interface between school and work by the combination of on-the-job and school-based training (part-time vocational school, block training, cooperative form of initial vocational training at the place of work and in school).
- Institution of a 'genuine' dual system combining theoretical instruction and practical training or vocational experience on a balanced basis in terms of both quantity and quality – i.e. a system dominated neither by the private firms nor by the 'school'.
- An increase in (a) investment in vocational training and further-education programmes in general and (b) incentives for participation by young people in these, rather than the provision of further short-term labour market programmes and short training courses.
- Positive discrimination in favour of problem groups (women, unqualified school-leavers, young foreigners,

<sup>1</sup> CEDEFOP document.

handicapped persons), e.g. by preferential provision of training places.

- Assurance of a 'soft landing' in the employment system by extension of a system of training combining part-time training with part-time employment on a balanced basis.
- Promotion of collective agreements in the form of training contracts in addition to, or in parallel with, contracts of labour.
- Opening of schools, providing further education, and universities for part-time training (both general and vocational).
- Extension of the further-education system and educational leave legislation.

### The system of linking training with work

The basis of this system exists in all countries, so that it is not fundamentally new:

- The dual system in the Federal Republic of Germany.
- Traditional training of apprentices in other Member States.
- Modular and credit systems for vocational further and advanced training, e.g. in France.
- Work experience programmes with parallel training in basic skills in the United Kingdom.
- Participatory instruction in the Netherlands.
- Educational-leave legislation in some countries.

However, except in the Federal Republic of Germany, only a small proportion of the age group benefits from this form of training – a rough estimate is about 18 % of the 17–18-year-olds in the European Community. About 40% of young school-leavers, on the other hand, receive no systematic vocational preparation, initial vocational training or further training following the period of compulsory school attendance (see following table).

This existing situation and these figures are part of the background to the figures for youth unemployment (see Appendix). Together they form the framework in which a system for linked work and training is to be placed.

The objectives set out above are to be combined and reconciled with the priority goal of qualitative and quantitative extension of the provision of initial and

further vocational training for young people in general.

In the past, and to a great extent still today, the efforts of the educational and labour authorities and the employment system in the field of integrating young people into the work situation have tended to diverge; by means of 'alternance' these efforts are to be integrated again into a more comprehensive and non-discriminatory provision of progressive initial and further vocational training.

The aim of these efforts is not to provide short-term vocational preparation facilities but to achieve true initial vocational qualifications at skilled worker level or above for all.

The following table indicates a possible location for a system of alternance training and its desirable scale. The details as regards material and curricula will, of course, have to be determined in accordance with national custom – i.e. the historical development of traditions and socio-economic conditions in the Member States.

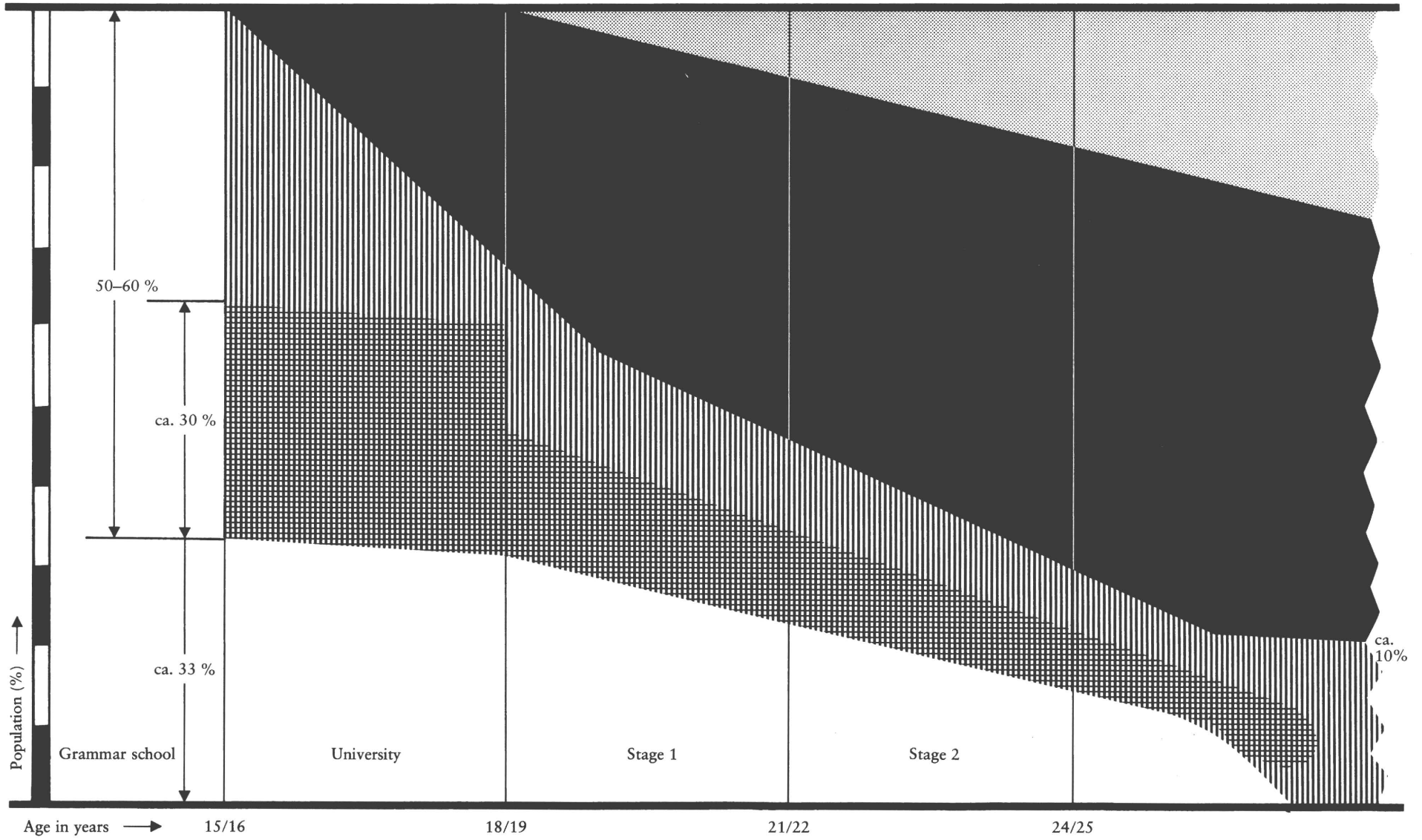
An important prerequisite for the introduction and/or extension of such a system is the existence of more strongly formalized cooperative relations between school and the world of work, combined with the decentralization of responsibilities on the one hand and an increased financial contribution by both government and private industry to vocational and further training on the other. The European Social Fund and the European Communities as a whole could provide concrete support and important impulses here for a new boost to the promotion of vocational training in terms of both quantity and quality.

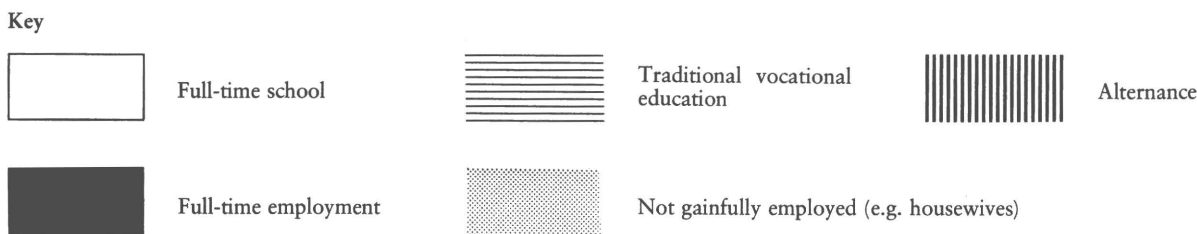
A three-day conference on 'alternance' was organized jointly by the European Commission and CEDEFOP in June 1980. It was attended by approximately sixty experts from the Member States. The conference papers and guidelines for the implementation of the Resolution of the Council of the European Communities of 18. 12. 1979 based on the conclusions of the conference, are at present being prepared for publication and will be available to interested parties in 1981 from CEDEFOP.

Activities of the 16–18 age group (1978)

Country	Number of young people 000s		Full-time education or training %	Part-time education or training %	No education or training %
B	16–17	160	78	3	19
	17–18	160	64	6	30
DK	16–17	75	48	20	32
	17–18	75	29	13	58
D	16–17	1 000	50	35	15
	17–18	970	33	46	21
F	16–17	855	75	10	15
	17–18	845	54	6	40
IRL	16–17	60	60	9	31
	17–18	60	29	4	67
I	16–17	880	55	11	34
	17–18	880	40	9	51
L	16–17	5	50	29	21
	17–18	5	37	19	44
NL	16–17	245	84	6	10
	17–18	240	64	13	23
UK	16–17	900	60	7	33
	17–18	875	32	12	56
EUR 9	16–17	4 180	61	15	24
	17–18	4 110	41	18	41

Source: CEDEFOP, estimates on the basis of Eurostat surveys and selected national statistics, Berlin 1979.





## Youth unemployment in the European Communities

Figure I (page 8)

- *Age group 14–24*

Young people aged 14–24 account for a total of 16.3 % of the population of the EC and about 17.2 % of the labour force. Their representation in the labour force is thus roughly proportional, but unemployment at 41.4 % is disproportionately high by a factor of 2.5.

Disregarding Luxembourg, the situation in the Federal Republic of Germany is the most favourable, but even here there is a disproportion of 1.5. The most unfavourable situation is in Italy and the second most unfavourable in France, the disproportionalities being a factor of 4 in Italy and of 2.8 in France.

- *Age group 14–19*

While the disproportionality in the subgroup of 20–24-year-olds in relation to the labour force (the activity ratio in this age group is particularly high – see also Figure II) is not so serious (a factor of 2.2), it is particularly marked in the 14–19 age group, with a threefold disproportionality between those unemployed and those gainfully employed in the EC as a whole. The disproportions are once again particularly bad in Italy and France (disproportionality factors of 5

and 4 respectively). Denmark, Belgium and the Federal Republic of Germany are almost equal at the bottom of the disproportionality scale (a factor of 2).

- *Age group 20–24*

Apart from Italy (3.7), Denmark (2) and Belgium (2), in particular come off badly in this age group. Approximate proportionality to the numbers gainfully employed in this age group is to be found in Ireland, the Netherlands and the Federal Republic of Germany.

- *Comparison between age groups 14–19 and 20–24*

The conclusion should on no account be drawn from a comparison of these figures that youth unemployment between the ages of 20 and 24 is any less high than in the 14–19 age group. On the contrary, it must be emphasized that, in absolute terms, this is the age group with the most critical situation in nearly all countries, as the activity ratio in this group exceeds 70% in all countries, even approaching 80% in certain countries, such as the United Kingdom, Ireland and Denmark.

The activity ratio for women, at 63.1 %, is highest in this age group. For men, it is also at the top end of the scale in comparison with the other age groups (see also Figure II).

- *Comparison of young and older workers*

Figure I shows that the proportion of unemployed persons among older workers is at least proportional to the proportion of those gainfully employed and to that of the population, if indeed it is not very much disproportionately low — particularly in Italy where this disproportionality is 0.13 (in the age group 55–59). Unemployment in the age group 60–64 in Italy appears to have been no longer measurable.

Apart from the Netherlands, where the situation is exactly proportional, and apart from the exception of Italy, all other countries show a slight underproportionality with values around 0.7.

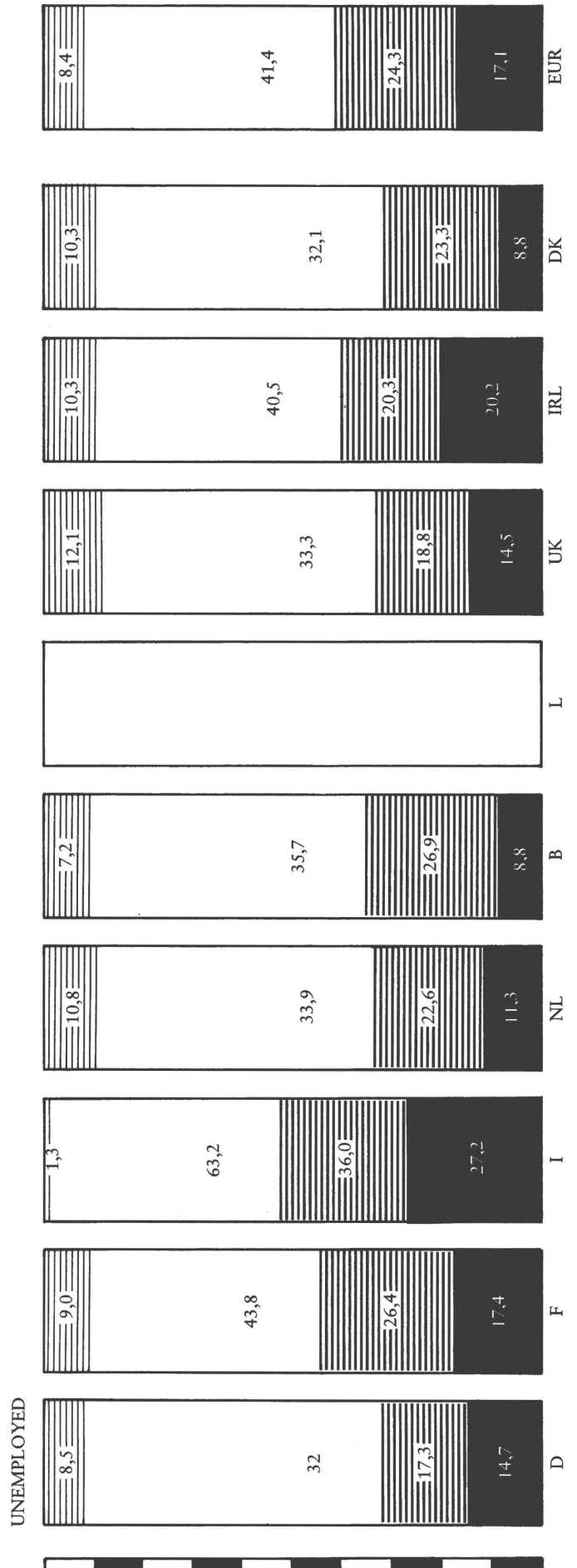
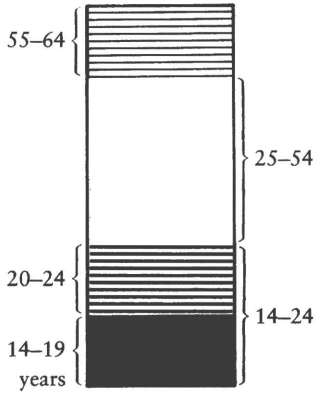
These figures indicate that the position of older workers, although they certainly face serious employment problems in certain situations especially in individual sectors and regions, is on average far less difficult than that of young people at the transition between school and their working lives.

However, it must be remembered that many older workers take advantage of the facility of early retirement, which is generally applicable in Italy and voluntary in the other countries, thus shedding a more favourable light on the situation of the 60–64 age group.

Figure I

Youth unemployment in the EC

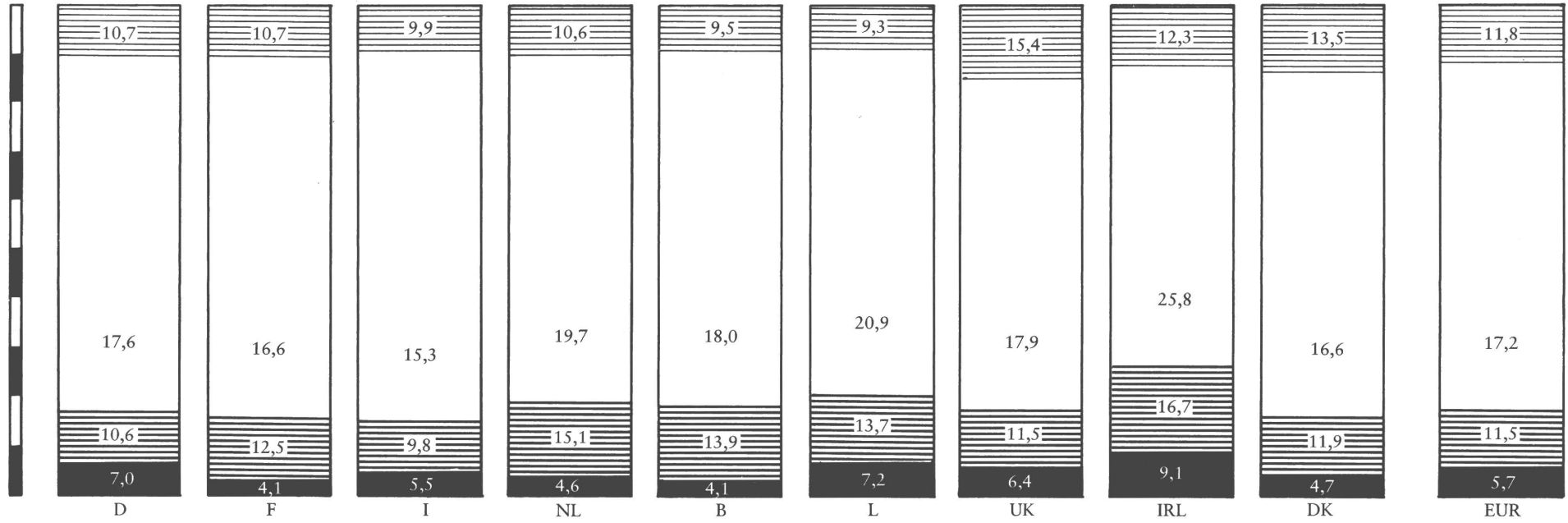
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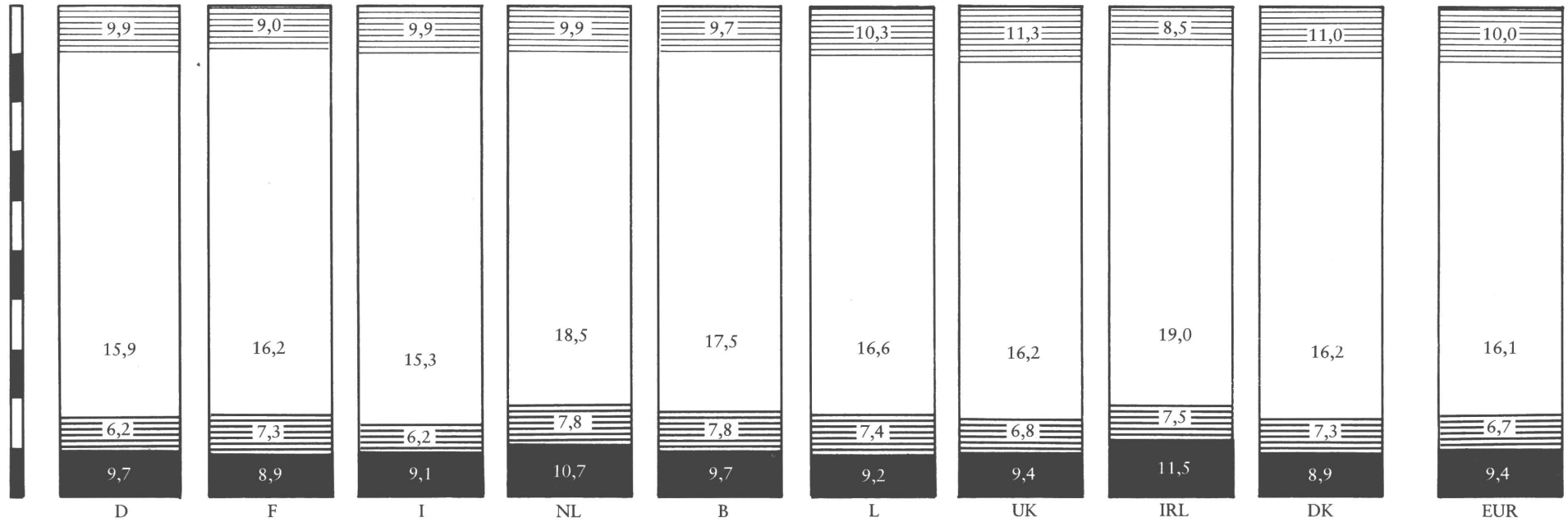
Source: Eurostat, labour force sample survey spring 1977, Luxembourg 1978.

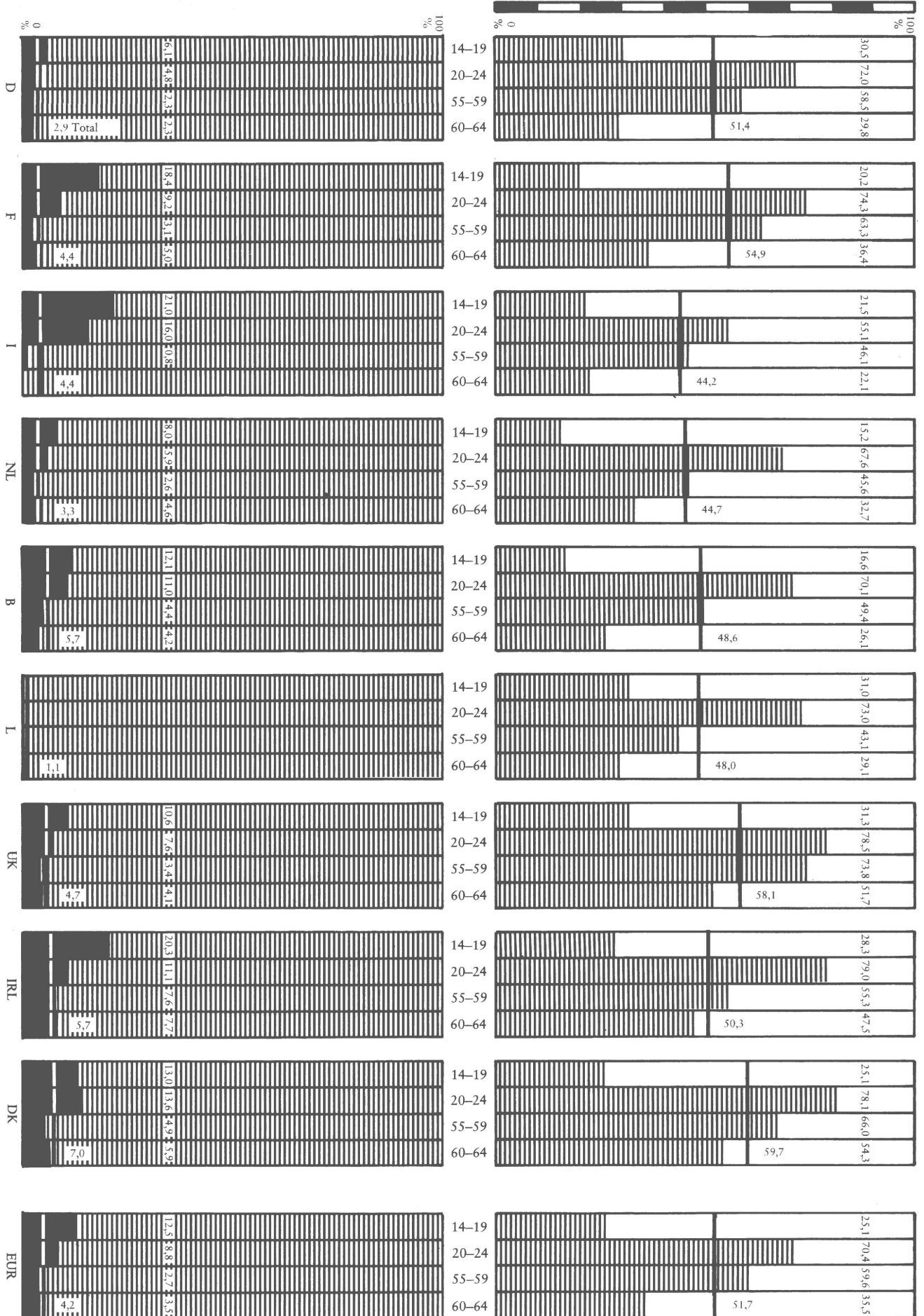


LABOUR FORCE



POPULATION





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## Figure II

### Activity ratios *v* unemployment in the EC

Source: Eurostat, labour force sample survey spring 1977, Luxembourg 1978.

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#### Figure II

- *Comparison of activity ratio and unemployment rate for young people aged between 14 and 19*

Here, the situation of the 14–19-year-olds on the labour market appears to be particularly critical. The only exception is the Federal Republic of Germany, which has a relatively low unemployment rate (6.1%). However, even here, it is twice as high as the general unemployment rate.

The substantial coincidence between the unemployment rate and the activity ratio in Italy is no doubt attributable to the method of recording, which was unable to take sufficient account of the black and grey labour markets existing in that country. For this reason the figures given above for Italy should also be viewed with caution.

In addition to Italy, France, Belgium and Ireland, in particular, had unemployment rates approaching the activity ratios.

On average for the EEC as a whole, the unemployment rate is about half the activity ratio for this age group.

- *Age group 20–24*

The 20–24 age group features high activity ratios and also consistently

disproportionately high unemployment rates compared with the overall unemployment rate (cf. comment above Figure I, Comparison between age groups 14–19 and 20–24).

Although the unemployment rate is lower in each country than for the 14–19-year-olds, in absolute terms this age group nevertheless displays the largest numbers, owing to the high activity ratio – in other words, this age group has comparatively the most unemployed in absolute terms. Ireland, the United Kingdom and Denmark had the highest activity ratios in this age group.

- *Age group 55–59*

Compared with the situation for young people, unemployment rates in this age group are lower in all countries. Indeed, except in Ireland, they are everywhere below the level of the overall unemployment rates. The unemployment rate in Italy is particularly low (0.8%).

Again, the activity ratio in this age group, at about 60%, is higher than the average of about 52%.

- *Age group 60–64*

The low activity ratio (about 35%) indicates that the situation of this age

group is also not satisfactory in spite of the relatively low unemployment rates. However, compared with the situation of young people aged between 14 and 19, it nevertheless appears relatively favourable.

In addition to Ireland, the Netherlands has a disproportionately high unemployment rate in this age group compared with the working population as a whole.

The lowest activity ratios are in Italy and Belgium, while the highest are in the United Kingdom, Denmark and Ireland. The first two of the latter countries also come top in a comparison of activity ratios in all countries, with nearly 60%.

- *Comparison of young and older workers*

Although the unemployment rates for young people are disproportionately high compared with those of older workers, their activity ratios are roughly comparable if the two young age groups and the two 'older' age groups are each combined. This indicates that young people are disproportionately badly affected by unemployment compared with their older counterparts.

# F

Positions were taken<sup>1</sup> and a spate of articles appeared following the announcement of a draft law on alternating training<sup>2</sup> with the rather unusual result of bringing this term to the attention of the general public before its usage had become common in training and teaching circles.

It would seem proper, therefore, before more detailed analysis and more searching commentary is made, to attempt to reply by means of a general survey, if not a synthesis, to the two following questions:

- (1) What do present theories on the concept of training by alternance involve?
- (2) To what extent is this concept already applied?

## The idea of linked work and training: theory

As far as can be judged from texts already published, the theory of alternating training systems is at present based on:

- (i) an ensemble of governing ideas and related concepts found in one article or another;
- (ii) the development of general theories leading to either a proposed definition or normative typology of the forms of such systems;
- (iii) specialized studies, most often statistical or socio-pedagogical and institutional.

Before presenting the broad picture, it must be noted that theoretical thinking on alternating systems is undoubtedly more advanced than the rather limited writings on the subject would lead one to believe.

It would seem that a great deal of formalization and conceptualization has

already gone on in various institutions using alternating systems for training, without this work, concerned more with results than theory, being widely disseminated. This situation is changing, however.

### *Governing ideas and key concepts*

Mr Zaki Struogo, one of the authors of the report on alternating systems made at the request of the Fondation nationale pour l'enseignement de la gestion (National Foundation for Management Education) by the Centre de Recherche sur les systèmes universitaires (Research Centre on University Systems), directed by Bertrand Girod de l'Ain at the University of Paris-IX, notes<sup>3</sup> that in the ten or so establishments where he made his inquiries (schools of commerce and engineering, universities) the directors spoke 'nearly everywhere in the same manner' of what he calls 'the training aims' of alternance.

This observation can be applied to most of the comments on alternance particularly in magazine articles. Whether it is a question of apprenticeship, technological training, 'youth' movements, higher education, or further training, the governing ideas and the concepts employed to define such systems from a theoretical point of view are much the same, whether praising the merits of such methods or stressing the defects.

These ideas can be divided into three categories:

- (a) educational,
- (b) psychological,
- (c) socio-professional and socio-economic.

Expressions used in describing the educational methods of alternating work/study

systems deal particularly with methods and practice. Thus, alternating systems encourage 'give and take between theory and practice', or 'a pedagogy based on curiosity, awareness, critical distancing, reflection on experience', a 'concrete pedagogy' making possible 'inductive thought processes' for the acquiring of knowledge, or a pedagogy to 'discover problems'; alternating systems lead to 'pluridisciplinarity' since 'real work' is not 'monodisciplinary'. In a wider sense, such systems imply 'a constant challenging of instruction' as they are more in direct contact with the real world. More rarely these pedagogical discourses dwell on the new educational content acquired by spending time being trained on the job, such as professional know-how and human relations. Critics of these methods, in contrast, speak of 'the devaluation of general knowledge and theoretical instruction' and the emphasis on acquiring 'tricks of the trade'.

The pedagogical language is coupled with psychological or psycho-pedagogical ideas. The term which recurs the most frequently is motivation: to find oneself in a 'real situation', to 'make, do real things', to 'take the initiative', motivates the pupil, student or trainee, especially if he was previously 'unmotivated' with regard to academic work. Other than the ability to motivate, alternating systems are often attributed the power to 'make responsible', accelerate 'psychological maturity' and 'attaining adulthood'. At the same time they teach how to 'dominate and control oneself' and 'achieve autonomy', 'develop per-

<sup>1</sup> *Author's note:* the final text of the law relating 'to alternating training, organized in conjunction with business circles' was published in No 40 of 'A.F.P', pages 71 to 73.

<sup>2</sup> See in particular the press roundup in 'Info-Flash', No 68 of 19 March 1979, pages 19-20, and the bibliography which follows.

<sup>3</sup> 'Enseignement et gestion', *Cahiers de la FNEGE*, new series, No, 8, winter 1978, page 14.

sonal projects', do without 'the smother-love of the school or university'. In contrast, when this psychological jargon is critical, one finds that the application of alternating systems may 'limit personal fulfilment' and strengthen 'conditioning by the organizational demands of productive labour'.

The third aspect of the discussion on alternating systems is socio-professional and socio-economic. The ideas advanced are presented generally as the consequences of pedagogical and psychological discussions of the subject of alternating systems and as conclusions drawn from actual observation or statistics. Texts which are favourable to alternating systems show it as a 'particularly efficient means' of liaison between the school or university and industry, between work and instruction, as well as a 'guarantee' of employment. At the same time, other writings dwell upon the individual's career and promotion possibilities when the acquisition of part of the general educational base and possible vocational choice is 'sacrificed' for the benefit of a short-term adjustment in the labour market.

Without claiming to be complete, such is the inventory that can be made of the governing ideas and key concepts which most papers published on alternating systems reveal.

#### *Trial definition and typology*

The beginning of a more profound study of the theoretical background of these ideas may be found occasionally in general works on education as well as in some papers dealing specifically with alternating systems.

● Thus, Gérard Malglaive, profiting from the experience of training instructor of the Ministry of Education within the framework of INFA in 1973 and 1974, proposes<sup>1</sup> that distinctions be made between:

- pseudo alternating systems,
- approximate alternating systems,
- true alternating systems.

Pseudo alternating systems do not establish any explicit sequence in theoretical and practical training. Periods of professional activity are merely interspersed with periods of instruction. He does recognize, nevertheless, that this method has the merit of allowing abstract forms to make contact with the concrete, thus counteracting the tendency to isolation which threatens all institutions and teaching methods.

Approximate alternating systems are defined as such because the trainee is only allowed to observe the reality in which he will be operating without being allowed to actually work within this reality. The case-study is the privileged tool of the approximate alternating system.

Finally, true alternating systems are 'those which aim at a global theoretical and practical training allowing the trainee to conceive, implement and evaluate his educational project'. The major interest of true alternating systems is that the trainee is allowed to 'test the real conditions of the project, perceive the difficulties and learn to seek solutions to these within the training framework proper'.

In commenting on these three categories, Mr Malglaive noted that though they are quite different in theory, they are not in fact completely separated from one another. In particular, true alternating systems can degenerate into pseudo alternating systems when there is not enough actual space for the trainees to implement the training projects set up during periods of instruction.

Mr Malglaive's definition of true alternating systems may seem rigorous and above all aimed at the training of trainers. However, this rigour is found in definitions proposed by other comparable theoretical commentaries, whatever the differences may be otherwise.

- Bertrand Schwarz, based on his experience at the School of Mines in Nancy, among others, writes in his book *Une autre école* published in 1977 (page 215):

'In the majority of cases, even if there is a true alternating work/study programme in the sense that pupils occupy different training areas at different times, there is rarely true alternation in the sense of one period following the other in logical progression on a long-term basis'. As far as he is concerned, this progression is not as simple to provide for and obtain as it would seem. In effect: 'In modern industrialized society the relationship between the school and the productive sector is one of uneasy union. A doctrine and implementation of alternating systems which does not recognize this truth from the beginning is doomed to disillusion and failure. Those who make use of these conflicting relationships, on the contrary, will find a driving factor for education' (page 221). The role of transmitting knowledge – that of the school – the role

of creation – that of the productive sector – and the role of apprenticeship – that of the pupil – are certainly all complementary, but just as certainly in opposition to each other. It is in this sense that Bernard Schwarz qualifies their relations as uneasy. Because of this, alternating training which has only academic training followed by practical training, even according to a methodical progression, cannot be a formative experience for 'the pupil finds himself faced with extremely sudden changes in role' (page 229). He therefore feels that transitional periods linking these two highly contrasted situations are particularly necessary. On the one hand, those working in the productive sector could participate in school-based instruction, in particular, to study example case-studies, and on the other hand teachers could go to firms in order to train their pupils, in conjunction with the firm's instructors, to analyse real cases in depth 'on the spot' and to progress from 'uninformed questions' to 'informed questions'. Careful consideration must be given to the work itself: jobs must be found which are both 'normal' and 'special', productive yet 'protected'. The job should not be make-believe productive work, should not be too complex or too tedious, but should still lead to the acquisition of theoretical knowledge. He feels that numerous analyses and studies will be necessary to find sufficient jobs of this type in the productive sector if alternating systems become general at the end of *seconde* (5th, secondary).

More generally speaking, he stresses that the success of alternating work/study systems depends on preventing certain 'deviations or drawbacks' (pages 240–242). It is necessary to prevent pupils substituting the myth of the concrete for the myth of the abstract, the workshop and factory coming to be regarded as sacred, alternance harming intellectual concentration through the lack of continuity in studies, certain pupils abandoning their studies for work demanding less intellectual effort, and above all, young people from privileged classes becoming still more favoured by being allotted jobs in the most interesting firms. For the firm, the major risk to be avoided is 'the disorganization of production units by being obliged not only to accept unskilled persons and employ them without exploiting them, but to have to train them as well'.

<sup>1</sup> *Revue Française de Pédagogie*, No 30, 1st quarter, 1975 (reprinted by *Informations SIDA*, No 297, January 1979).

However, Bernard Schwartz concludes that it would be a pity 'to dismiss the case for alternating systems as unfounded, in presenting only the list of obstacles to be overcome... It is not enough to say: it is impossible (for) it is even less possible to leave things as they are'.

- Daniel Chartier, Director of the Centre pédagogique des Maisons familiales et rurales also tries to avoid a fuzzy definition of alternance. In conclusion to his study *Naissance d'une pédagogie de l'alternance* published in 1978<sup>1</sup> he says there are, to use his terminology, risks of 'defects' or 'imitations' which threaten such systems. The first 'consists of offering teaching during the scholastic period that does not consider the pupil's background activities. In this alternating system there are no real bonds between the young person and the surroundings'. One recognizes here what Gérard Malglaive calls pseudo alternating systems, and Bernard Schwartz illusory alternating systems.

Daniel Chartier also deals with the second concept which he calls 'even more harmful', consisting of 'treating the living environment only as a field of application... Such methods allow the pupil no initiative... and in extreme forms this type of teaching can be alienating and dangerous'.

A true alternating training system presupposes respect for certain well-defined conditions, which when combined should give birth to three structures:

- a social infrastructure: a simple administrative unit cannot offer valuable support to the educational methods of alternating training systems, for it is necessary to have real participation by all those engaged in the training process: 'This requires an organization to arrange encounters, exchanges and discussions during regular reunions', and a governing body to receive the reports of these debates.
- an educational infrastructure, which recruits pupils on the basis of geographic zone, the size of which allows effective contact between the various participants, permits the teaching staff to become familiar with the pupils' background, encourages a certain group heterogeneity and limits the size of the educational establishment.
- a pedagogical infrastructure equipped for further training after the termination of studies.

- The survey of these very general theoretical developments terminates with Marcel Lesne's point of view set out in his book *Travail pédagogique et formation d'adultes*. Employing Gérard Malglaive's three categories (pseudo alternating systems, approximate alternating systems, real alternating systems), Marcel Lesne places them in the context of his general classification of the various educational methods used in training adults. With regard to the relationship of the trainees with knowing and doing in the training process, this classification makes distinctions between:

- the didactic form of education with standard orientations, represented in its most extreme form by 'traditional' teaching methods, but also by so-called 'participatory' methods where, in fact the person being trained is a training object;
- the personally-orientated incentive method which appears as a real 'participatory' method in psycho-sociological modes (inner direction, group dynamics, etc.) and in institutional modes with a therapeutic or self-directing bias;
- the adaptive form of education, centred on the social situation of those being trained. This educational method aims at developing the capacity of the individual to change his daily working conditions and achieve new forms of economic and social relationships based on his social status, and in particular, occupational and technical level.

Marcel Lesne places real alternating systems as defined by Gérard Malglaive within the third mode, along with other examples such as Paul Freire's consciousness-raising.

On the other hand, the two other forms of alternating systems: pseudo alternating systems and approximate alternating systems can, as far as he is concerned, serve only as a 'palliative or a diversion' (page 153) to the didactic or incentive methods of education.

#### *Specialized research*

As well as the broad general developments in theory which have been roughly set out in this survey, including a few condensed summaries, publications dealing with alternating training also contain analyses and more specialized studies. These are mostly statistical or sociological. Little research on the pedagogy of

alternating systems seems to have been published to date.

- Statistical analyses are most often of official origin: Ministries of Education, Labour, Agriculture, and the Centre d'Etudes et de Recherche sur les Qualifications (CEREQ), joint bodies, professional organizations, etc. Apprenticeship takes up a large portion of the whole, testifying to its importance. Statistics provide information, above all, giving a profile of the individuals trained (social origin, previous schooling or trades) and also the results of training (success in examinations, employment, and sometimes later career development). Information is also given on the more directly measurable aspects of training itself: length of study, cost, financing. The second category of specialized studies found is most often of a sociological nature. These are usually based on interviews with pupils or trainees, teachers, directors or firm executives, in order to learn their observations, expectations, motivation, and more generally, their opinion of their training and in particular on the periods spent in the firm.

The University of Paris-IX Centre de recherche sur les systèmes universitaires has conducted several searching inquiries of this type, particularly in 1973 and 1974 in conjunction with the Colloquy of Rennes on alternance programmes in the universities, and in the following years in some management and engineering schools. Similarly, the Groupe de Sociologie du Travail du Centre National de la recherche scientifique and the University of Paris-VII published a joint study on alternating training aimed at young people without initial qualifications.

These inquiries contain much information which can be used from a pedagogical point of view. It is interesting to find, for example, in a survey<sup>2</sup> made in 1973 among university students that 'while demanding that training periods be integrated with the curriculum', they wanted 'only a possible appearance of teachers during these training periods, or indeed none at all'. ... Most remained 'quite insistent that the training period be the student's personal affair ... the trainee demanded his independence ... The student changes masters during the

<sup>1</sup> *Mésosonance*, No 1, pages 162–164.

<sup>2</sup> B. Girod de l'Ain, *L'enseignement supérieur en alternance*, pages 208 and 212.

training period and does not want to have two at once, the university and the firm'. Knowledge of this type of observation, in so far as it remains valid, can obviously be very useful in the conception and organization of educational methods for alternating systems for similar groups.

Though sociological studies do gather pedagogically useful information, their objective is rather to bring the social or institutional function of alternating work/study training systems to light. For example, the University of Paris-IX Centre de recherche sur les systèmes universitaires has become particularly interested in correlating the development of alternating systems in higher education with the developmental strategy of the teaching institutions themselves and with the strategy for recruiting executives used by firms. Zaki Struogo in the FNEGE study already referred to, puts forward the hypothesis that 'for certain schools which make practical training courses (stages) the keystone of their educational method and give a privileged role to practical training, alternating systems have a strategic function above and beyond their pedagogical role: that of permitting these establishments ... to disassociate themselves from other schools (more traditional but) generally considered, rightly or wrongly, as 'better' ...

- There is little readily available published material on studies made of the method, or rather the methods, of teaching alternating programmes, on methods of setting-up curricula, on the organization of training timetables, on activities performed by pupils, trainees and students, on the training of instructors implicit in such training schemes, etc., and on other technical aspects. Certainly, things will improve: witness the monographs from schools, the findings of colloquies published by the FNEGE in conjunction with the University of Paris-IX, the launching of a specialized magazine by l'Union des Maisons familiales et rurales, the reports of the 'youth' campaigns. However, to return to the theme central to the discussion on alternating training, the give and take between theory and practice has not yet appeared as either a major or a minor point in a study on alternating systems of a pedagogical nature.

However, remaining within the limits of the terminology, it seems obvious that from the pedagogical point of view the expression has a rather vague meaning.

Does not the idea of alternating work/study training systems consist rather of a give and take between two theories: the theory developed and communicated in a school context (without giving a perjorative nuance to the epithet) and the theory translated into action in the context of the firm?

With reference to the concept of 'the concrete' which is often associated with the concept of alternating training, Cousinet has already stated in 1965 that the word "concrete" is totally void of meaning; it signifies nothing, nothing, nothing. What is opposed to the abstract is the individual's summation of what he has observed, what he knows, what he wants to know. The observation of an individual, however, may be concrete to a childish degree, or on the contrary, abstract to a philosophical degree. The word "concrete" must be replaced by the idea of the familiar'.

However, it does not seem likely that this recommendation will be considered in writings on alternating training systems at present.

It is even more to be desired that training institutions where methodical studies have been undertaken make generally available reports of their experiences and the conclusions drawn in their studies.

Alternating systems are a sort of pedagogical algebra which, by adding time spent in firms and time spent in training centres, hopes to arrive at original results. Even if development remains only partial, the more quickly the formulae already tried are known, the less the alternating training programme risks finding positive or negative magical properties attributed to it.

## Application of the theory of alternating training:

### *General survey of the present sphere of activity*

If the theory of alternating training, as shown in various publications, remains rather undeveloped, a knowledge of the sphere of activity depends firstly on the definition. The area covered obviously depends on the meaning that one gives to 'alternating'. The more qualitative criteria of identification contained in the definition, the fewer genuine examples will be found. Even if it is tempting to work in this manner to preserve the term

'alternance' from linguistic inflation, the adoption of a strictly normative definition leads to risks of purism and dogmatism.

It has been felt preferable in the context of an introductory paper to begin with an open definition retaining as the sole criterion the identification in the training curriculum of several periods spent both in firms and training schools without commenting on the way in which they should, or should not, complement each other.

As things stand, however, the chosen definition leads to the exclusion of types of training or teaching which are sometimes associated with the word 'alternance':

- *Part-time training*, particularly in night or weekend classes while working full time. This is true alternation between training and work, but not within the training process itself except in some cases. The fashion for alternating systems from which these systems presently benefit, or sometimes suffer, has the effect of making an alternating system of what has been called until recently 'part-time training', which seems more accurate.
- *Further training courses* are certainly inserted between two work periods, and the job experience of the trainees often complements the training; but, as in the case of part-time training, it is only the timetable of the course itself that alternates, except for exceptional cases. Attention should be paid, however, to the fact that in certain international or foreign publications, the fitting of training time into working time is qualified indiscriminately as further training, sandwich training or refresher training. In a similar manner one sometimes finds the expression 'external alternance', used by Bertrand Girod de l'Ain and Mr Bernard during the Rennes colloquy on higher-education alternance programmes in 1973, to designate the proportional increase of adults and young people having already had full-time working experience in the student population.
- *Training or teaching which includes practical training* and which because of their limited number, short duration or other factors are placed in a peripheral, indeed marginal, position in relation to vocational training proper. This is the case when practical training is included in the course of study but at

such times (summer vacation, particularly) and according to such procedures that the students regard them as opportunities to have a 'holiday job' or look on them as slightly longer visits to firms (origin of the expression 'tourist classes'). Training which also enters into this category is that terminating with a substantial period on the job (for example, three months for the BTS), or by an 'applied' period (one year for certain schools), but which does not involve, strictly speaking, a coming and going between the firm and the training-school. Of course the exclusion of these training forms from the definition of alternating systems does not imply any global value judgment, nor even a criticism of the manner in which training in firms is set up.

Even when defined in this manner, the sphere of alternating programmes continues to present a great diversity of training schemes. Based on the proposed definition, the following may be included.

#### *Apprenticeship in industrial and tertiary sectors*

Article 1 of the law of 16 July 1971 on apprenticeship defines it explicitly as a type of education having as its goal to provide, after completion of compulsory schooling, a general, theoretical and practical training, assured in part by a firm and in part by an apprentice training centre (CFA). Article 5 stipulates that the total time of instruction by teaching and other activities governed by the CFA cannot be less than 360 hours per year; statistics show that the average is 400 hours per year.

The apprentice has a worker's status, with a special indenture. He is obliged, as an ordinary employee also is, to carry out the work assigned him by the employer. On the other hand, the employer must assign him tasks or jobs leading to (Article 17) 'an annual progress as defined by common agreement between the CFA and representatives of the firms whose apprentices attend the Centre'. This progress is established in relation to the diploma being prepared. At present, apprenticeship leads to a CAP in two or three years, but the law in no way confines it to this level.

There are nearly 500 CFAs with an apprentice enrolment of roughly 200 000 (for an age group of around 800 000), with an average age of 17 years. These

are principally pupils who have had school difficulties.

Apprenticeship is concentrated more and more in certain spheres of activity: food, building and finishing, mechanics, health and social services, commerce, electricity, wood trades.

To apprenticeship in the true sense of the term must be added a scheme whereby pupils of 15 years of age who are finishing their compulsory schooling in *cinquième* (2nd, secondary spend a period of 15 to 18 weeks in training in firms, divided over the school year. These are pre-apprenticeship classes and are attended by approximately 3 000 pupils.

#### *Apprenticeship and one part of technical agricultural education*

The agricultural sector also has apprenticeships based on the same legislative framework. There are, however, far fewer apprentices as less than 9 000 young people attend the agricultural vocational training centres.

The law of 2 August 1960 dealing with teaching and vocational training in agriculture states, in Article 1, that pupils having completed compulsory schooling may receive 'vocational and general training, either in a permanent fashion or following an appropriate rhythm'. Thus, cautiously but incontestably the way was opened to the possibility of alternating schemes or, to be more exact, confirmed this possibility, as in certain areas these practices had preceded the law.

The result today is that more than 30 000 young people (of approximately 120 000 pupils in technical agricultural education) are preparing the CAPA (equivalent to the industrial or tertiary sector CAP) or, in the case of pupils from private institutions, the BEPA.

In contrast to apprenticeship, it must be pointed out that these pupils retain their student status and are not indentured to the agricultural concern where they do their practical training. Contrary to what comments made regarding the writing of the draft law on alternating work/study schemes might lead one to believe, the sphere of action of this method already covers 'primary training' and is not reserved to those 'leaving the educational network'.

However, it is true that the dispositions of the law of 16 July 1971 on technologi-

cal training 'in the various sectors of the economy' (Article 5) according to which (Article 6, last sub-paragraph) 'the technical educational methods may include full-time, alternating or simultaneous teaching' have not been applied in industrial and tertiary sectors in the same way as in the agricultural sector.

#### *Training schemes to facilitate the employment of young people*

Since 1975 when the campaign '50 000 young people' was mounted, and particularly since the first 'National Employment Pact' in 1977, the Government has strongly encouraged the development of complementary training comprising training hours, both in the traditional sense and on-the-job, aimed at young people who have already left the initial educational organization but have trouble finding work.

Without entering into details on modes and modifications which have appeared from year to year<sup>1</sup> there are basically three forms:

- *work-training contract*: those concerned (young people of under 25 years and unemployed women) have a common-law work contract and perform 'ordinary' work, with the difference that the employer must give them training during working hours. When this is refresher training aiming at finding a job, its length varies between 120 and 500 hours and the contract is for a minimum of six months. If the aim is 'trade qualification', the training period is between 500 and 1 200 hours, and the work guarantee is at least a year. This training may be given by either a public or private body and may also be done in a firm, given either by external instructors or firm personnel.
- *practical training in firms*: consists of a period in a firm of at least four months, including a minimum of 120 hours of training, preferably of a vocational nature. Young people who have not yet reached 26 years of age and women following practical on-the-job training receive remuneration but do not have a work contract, their status being that of vocational trainees.
- *training courses*: are so called because they take place principally within the confines of a training

<sup>1</sup> See No 41 of A.F.P., July-August 1978, pages 63-69 and for statistics, pages 70-75.



organization. The programme, of a maximum 800 hours, must include one or several weeks of practical training in a firm, however. The training course which aims at preparing for strictly defined, and if possible, skilled work must associate general education with the vocational training, as well as basic cultural knowledge and an introduction to economics. The trainees do not have a work contract and are paid by the State.

In 1977–78 ('Pacte 1') statistics registered nearly 150 000 practical courses, 70 000 training courses and 26 000 work-training contracts. In the three cases more than two-thirds of the training (68%) was at semi-qualified worker level or under.

In 1978–79 the number of participants was respectively 27 000, 56 000 and 38 000, and the total number of those benefiting fell from approximately 550 000 to 275 000.

Global estimates for 1979–80, however, rise to 475 000 composed of 120 000 practical courses, 50 000 work-training contracts and 40 000 training courses.

Although these numbers are very high, their inclusion *in toto* in the sphere of alternating systems can hardly be justified. Although each of the three methods of training described can be organized as a serial progression of on-the-job training and training *per se*, this type of organization is not obligatory. Nothing forbids lumping all the on-the-job training together and grouping all the theoretical training time together also.

It would be difficult, therefore, to speak of alternating training systems, given that the combination of the two elements would display a 'coming' without a 'going', a 'give' without a 'take' between the firm and the training establishment. The definition proposed earlier leads, in any case, to the exclusion of these solutions from the number of means of implementing the concept of alternating systems.

But even though if up to now the elements which would allow a precise appreciation of the quantitative dimensions of these limitations are lacking, it seems reasonable, based on a few indications, to advance the hypothesis that the majority of training courses, practical courses and work-training contracts are made up of more than one instructional period and one training period and do enter, therefore, in a first analysis, within the

field of the application of alternating training.

#### *Some higher-education examples*

Though relatively rare in the 1960s, the sending of students on training courses has become more common recently. Bertrand Girod de l'Ain estimated at the end of 1978 that the number of unit-month training courses attended annually by students in post-secondary management studies (long and short) was 40 000 as compared to an approximate 2 000 only 20 years previously. Similarly, a recent study by the Comité d'études sur les formations d'ingénieurs estimated that 10 000 student engineers are given on-the-job training each year in firms.

Can it be concluded that alternating programmes are highly developed in higher education? When replying, the same reserve must be exercised here as for the 'youth' campaigns. For example, the study of B. Girod de l'Ain cites a fair number of organizations where the length of training courses is no more than 10 to 15% of the total educational period. Even though the definition proposed of alternating systems does not contain any quantitative criteria and therefore does not, strictly speaking, permit the exclusion of this sort of case, it would hardly be worth while to include it in the domain of alternating systems.

It appears more realistic on the one hand, to retain the general impression gathered from the available information that, based on the number of practical courses offered to students, higher education is already more 'on the track' to alternating training than secondary education, and on the other hand to stress that training explicitly described as 'alternating' is found principally:

- *in higher schools of business management:* organizations affiliated with Chambers of Commerce or Industry (in particular ESCAE of Amiens and Marseilles-Luminy, the École des Affaires of Paris), the Universities of Lille-III, Paris-VII and Orléans (for the DEUG and then the Masters in Economic and Social Administration or in Business Administration), the IUT of Nantes (Business Management and Administration Department) and private institutions such as IPAG in Paris.
- *the 'Grandes Écoles' of engineering:* School of Mines, School of Roads and Bridges, INSA, CESTI, etc.

- *in education in scientific disciplines:* preparation for the diplomas in the science of material structures at Lille I, in natural and life sciences at Paris VII, in science and technique at Metz or Valenciennes; however, the numbers affected are small (a few dozen students).

The development of alternating programmes in these institutions is particularly evident by the proportion of time passed in a firm: from one-third to one-half of the total length of studies. The periods in firms are often rather long, being several months, a quarter or a full year.

#### *Further training*

There are two different methods of applying the principle of alternating work and study in further training: long full-time sections and 'training by group initiative'.

The first are noteworthy but not numerous: training engineers in two years by CESI, training of instructors in two years by IFACE and by CNAM.

The second method which is practised more frequently is composed of generally short sessions, separated by inter-sessions which do not interrupt the training process but on the contrary must be used by the participants to put the realities of their work or life into context with the 'content' and 'experience' of the sessions in a direct, participatory and instructive manner. The fact that most of these sessions take place under 'in-house training' makes it very difficult to estimate the total number involved or to evaluate their methods. It most often probably deals with either training instructors or has the aim of accompanying or producing appreciable (in both senses of the word) changes in an institution (organization, working, internal relations, etc.). Such sessions are sometimes called 'post-experience training' as opposed to training courses, or 'training by group initiative'.

Such would appear to be the field of application of the concept of alternating systems after a preliminary examination. The expression, as far as it goes, should not suggest unity, which does not exist. Even if one may legitimately group

<sup>1</sup> 'Enseignement et gestion' *Cahiers de la FNEGE*, new series, No 8, winter 1978, pages 7–13.

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together the various types of training which have in common the succession, in one manner or another, of periods in firms and periods in training-schools, the alternating training systems making up this 'group portrait' are still very different. The people involved, the areas, levels, quantitative importance, seniority,

institutional ties and legal framework, to list only the more visible factors, vary considerably not only from one type to another but in a certain sense, within each category itself.

Though it may be convenient to speak of 'alternating training' in the singular (as

in further training), the usage of the plural in 'alternating systems' reflects more faithfully the richness and diversity of the composing elements.

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## The strategy of alternation

It is an important consideration that, in Italy, the strategy of alternation between work and study has on the whole been viewed as an educational strategy, the only reasonably radical way in which the school system can fulfil its duty of serving the adult world and helping young people to prepare themselves better for work. Although the world of work is obviously involved as well as the school system, the subject has always been, and still is, of greater concern to the school administrators than to employers. The latter have looked to the private sector for a solution or, in some cases, to directly job-orientated projects (a works-based training school or on-the-job induction). Especially since the educational system has come to be viewed as one of the primary forms of social service, the school has had to think about institutionalized solutions; to an extent, it must mediate between the pressures from below and the pressures exerted by the economic system.

It can be argued that, historically and in general, the pressure for a higher level of training does not come from the employers. The main criticism of the ideal of a sound and efficient link between the school and the world of production is that in practice it is impossible to match the supply of labour to demand, to bring home the causal connections between economic development and expenditure on education, or to put what has been learned at school to effective use in the workplace (the 'material aspect' of qualification).

The rapid expansion of an educational system whose *sole values are those of social position or bureaucracy*, and the unemployment among those trained in intellectual skills which has ensued, have

made it necessary – in planning terms – to expand the public sectors with a higher level of skills (tertiary public welfare sector).

In this context, one may well wonder how the *demand for alternation* which is arising in Italy – and we refer to demand from the social forces rather than from the sociologists – fits in.

There are at least two main ways in which this demand is expressed. First of all, it comes from the young people themselves. The explicit demand for alternation of work and study among the young has been documented by recent research, and in addition there have been instances of spontaneous alternation in the fact that young people accept or even choose part-time work. In any case, there is a tendency to move towards secondary education or university level studies that clearly lead to employment or that provide an opportunity to work while studying. This demand could be viewed either as a fall in the demand for lengthy training or, as is more probable, a *demand for a different type of training*.

For this reason the subject is still considered by most people to be an *educational strategy*. The school system cannot do without the main justification for its existence much longer, i.e. that it is a period of preparation for work. After the first 'boom' in education and the accompanying wave of optimism, in recent years the school system seems to have lost its functions in inverse proportion to its elephantine growth in size. The more this loss of function is condemned, however (and its main condemnation lies in the problems faced by young people today), the more impelling is the need felt by the school system to recover everything that originally justified its growth.

Seen from the school's standpoint of institutional self-preservation, the strategy of alternation appears to be the only way that the school can incorporate the much debated 'social training in work' in terms of practical training and motivation.

The strategy of alternation confirms that there cannot be adequate motivation for work without direct experience; as a result, if the school does not wish to declare itself a failure by the simple expedient of curtailing its length, it has no alternative but to incorporate job experience in its curriculum.

While the alternation of work and study is associated with the school system, it is also associated with a specific age group. The priority goal of alternation should be to solve the problems of young people, the traditional preserve of the school system. If the school has failed in its task of preparing the young for society, in that the environment it provides is too narrow to enable them to accumulate the experience they need as they enter the adult world, its horizon must be extended. The strategy of alternation is one of the best ways of helping young people through their lengthy period of initiation in a more fruitful manner, or of shortening that period.

The alternation of work and study is no longer a purely theoretical consideration. Experiments and trials are already being carried out and have probably touched every aspect of the problem in some way.

In the future, the *alternation of study and work* should become a more comprehensive term than 'continuing education'. Although the principles are similar, the latter normally refers to education at post-elementary level or at least after the minimum school-leaving age Continuing

education should be spread out over the whole life of an individual by means of a sort of rotation system, i.e. education sandwiched between other activities, the main activity being work.

The alternation of school and work relates both to the whole period currently devoted to education and the period devoted to work. The proposal is in a sense to merge the attitudes of school and work. This has two-fold implications: a reunification of the whole educational system in which there should no longer be different training circuits for young people and for adults; and, above all, an awareness of the need for common areas of planning in the school system and the world of work – something that is far more difficult. What is needed is to demolish the barriers between education and work that have fenced in individuals on both sides, making it difficult for them to cross over from one side to another.

## Legislation on alternation of school and work

The body of regulations and legislation implementing the principle of alternate school and work has been evolved in the light of practical experience in the field rather than springing straight from the drawing-board.

If we exclude the 1955 law on apprenticeship, now superseded, all the statutory measures that reflect views on the advisability of providing for workplace experience in the school curriculum have been brought in very recently (1977–78). The first landmark was Law 285 of 1 June 1977, entitled 'Youth employment measures', which stated the principle of alternation for the first time. It empowered employers to offer young people aged between 15 and 26 an employment/training contract for a term of 24 months. Under the contract, in the course of a 40-hour week the young person worked for no fewer than 20 hours and spent the rest of the time on training courses promoted or authorized by the regional authority, conducted either at the place of work or on consortium premises.

Law 479, 4 August 1978, was enacted a year later to amend certain passages in Law 285 which experience had proved unworkable. One of the points amended was the distribution of theoretical and

practical work in an employment/training contract. Law 479 stated that it was no longer necessary to include the training period in the 40-hour working week; instead it laid down an overall quota (600 hours' training a year) which could be spaced out more flexibly in the light of an annual programme formulated and approved by the regional authority.

Law 479 also introduced another form of alternation between study and work: its Article 16, para. 3, authorized the regional authorities, by agreement with both sides of industry, to negotiate special conventions with companies in all sectors of the economy on arrangements for on-the-job training for maximum periods of six months. The people entitled to take advantage of the scheme are students who have enrolled for a preliminary vocational training course. While working for their qualifications they may be employed on vocationally skilled duties but they may be assigned to direct production work for no more than limited periods.

With both the employment/training contracts and the on-the-job training courses, there may be specific examinations at the end of the period; if the trainees pass, they are considered to be vocationally qualified.

The principle of workplace training was taken up very recently by Law 845, 21 December 1979, better known in Italy as the 'outline law on vocational training'. Article 8 states that vocational training must be modular in nature and that it should be broken down into 600-hour cycles, some of which *must* be devoted to acquiring practical workplace experience.

An additional provision is that no more than four training modules can be taken in succession without a break for suitable experience in a production environment.

The outline law on vocational training takes over the principle formulated by its predecessor, Law 479, that the regional authority is entitled to reach agreements with individual concerns, or with consortia of concerns, on arranging training courses, refresher courses and requalifying and retraining courses. The regional authorities are not the only bodies which may reach such agreements with companies: authorization is also granted to organisms and institutions in the private sector engaged upon training which wish to make arrangements with companies

for their students to have periods of practical introductory work an experience with special plant and machinery or with specific production processes or to implement – in the words of the law – schemes for alternating study and working experience.

Lastly, Law 845 makes another reference to alternation of work and study as a principle deserving of encouragement when, in requiring the regional authorities to plan for practical and theoretical training activities designed for apprentices, it refers to the procedures for vocational training described elsewhere in the same law (Articles 5 and 15), thus transforming the institution of apprenticeship into a training contract.

Up to this point, we have mentioned the repercussions of the topical issue of work/study alternation on recent legislation in the field of vocational training. It should also be pointed out however, that the principle has also had a direct effect on the school system. Italy is paving the way for a radical transformation of the upper level secondary school system and for years debate has raged on the subject, gradually leading to a set of bills presented by the political parties. All these bills have been embodied in a recent reform bill on the upper level secondary school system, approved by the Chamber of Deputies on 28 September 1978 and now before the Senate.

The law lays down as a guideline for the secondary school that it should give its pupils the academic and vocational background that will prepare them for entry into the world of work. Article 2 states that fifth-year pupils should be given practical experience of work by means of monitored induction training, in cooperation with production structures, to be regulated as appropriate.

In addition, to help pupils acquire the more specific vocational skills they will need to do certain jobs, they may attend courses providing training in special skills before they start up in a job. These courses will be regulated by the regional authorities along the lines laid down by the legislation on vocational training, particularly periods of practical introductory work on the job.

When discussing the legislation that implements the principle of alternation between study and work, mention should be made of the agreement embodied in many collective contracts: that workers

are entitled to a period of training on full pay which, when combined with the number of hours devoted to study on a voluntary basis during their leisure time, will enable them to attend the '150-hour courses' (corresponding to the paid leave granted to their French counterparts).

We shall do no more than mention this form of release from work for study since, as of this date, it cannot be considered as a true experiment in alternation of school and work, due to the explicit wishes of the unions: most of the courses concerned are designed to help workers acquire the school-leavers' diploma normally obtained at the end of the compulsory period of schooling, and they conform to rigid ministerial curricula for remedial academic education.

### The most significant experiments in the alternation of work and study in Italy

*Southern Italy/European Social Fund Project*

The first practical example of work/study alternation in Italy dates back to 1975, when ISFOL<sup>1</sup> was asked by the Ministry of Labour to plan and run an experimental project in certain public and private training centres, and did so in cooperation with the Ministry.

The experimental scheme included a hundred two-year industrial training courses, part of the consolidated activities conducted by the regional authorities in Italy's Mezzogiorno although, for two years, they were organized along entirely original experimental lines. The European Economic Community provided 50% of the funds for the project and the remaining 50% was contributed by the regional authorities. The project was administered by a consortium of the civil service, employers and unions, the regional authorities and the training bodies.

Although the objectives were many, the basic concept was that an attempt should be made to introduce work experience in the form of on-the-job training into the vocational training course for the first time. The training course was broken down into modules and one module (the third) consisted of assigning the trainees to duties consonant with the type of course they were taking.

Although it cannot be claimed that trials in specific sectors are sufficient to provide solutions to such a complex problem, the project – with its six-month module specifically devoted to a period of work in a company – was promising material for further research.

The following advantages were derived from bringing the trainee into contact with a company during the course of his vocational studies rather than on their completion:

- the contact provided a testing ground for the trainee's vocation;
- it helped to align technical and scientific thinking (horizontal and less dynamic) with workplace thinking (specific and material), so that the former could be made more functional and aware of the production cycle and might then be able to influence and change that cycle;
- it involved the companies themselves in the management of the training cycle, under the guiding hand of the public authorities;
- it boosted training downstream, so that the company's experience could be embodied in a flexible but systematic structure of technological paradigms.

The tables that follow set out the percentage figures for the courses organized based on:

- skill sector (Table 1),
- type of vocational training course (Table 2),
- location of vocational training course (Table 3).

Table 1

Skill sector	Duration of course	
	less than 2 months	over 2 months
Engineering	17%	83%
Electrical engineering	18%	82%
Others	54%	46%

Table 2

Type of VTC	Duration of course	
	less than 2 months	over 2 months
Public	30%	70%
Private	50%	50%
Company or joint company	70%	30%

Table 3

Location of VTC	Duration of course	
	less than 2 months	over 2 months
Large town	20%	80%
Medium-sized town	50%	50%
Small town	80%	20%

In these tables, the longer courses are considered to be those providing the trainees with a real opportunity to take part in the life of a company, both in work and in training. The shorter courses are those restricted to one or more visits to a company, although these may well be thorough and well organized.

Two incontrovertible facts emerge from these figures:

- In the poorer areas of southern Italy, during a period of serious economic recession, it was possible to plan and implement a far greater number of courses than envisaged by even the most optimistic predictions (42 courses with a total of 830 trainees).
- However hard one tries, it is not easy to identify the structural characteristics (such as size of town, location, etc.) which manifestly worked in favour of implementation of the courses.

It could perhaps be said that the private centres were more successful than the public centres. This could readily be explained by the greater administrative flexibility of the former.

The (laudable) commitment on the part of employers' associations and certain regional authorities and the lack of interest displayed by the union bodies can be viewed as important factors, although they may not determine the success or failure of the ventures.

Paradoxically, it could be argued that when commitment became more formal the opposition became stiffer once the practical stage was reached. An indirect confirmation is provided by the following table, which shows the percentage of courses organized in the various types of company.

Table 4

Type of company	Duration of course	
	less than 2 months	over 2 months
Large	10%	90%
Medium-sized	40%	60%
Small	60%	40%

The larger the scale of the company, the greater is the natural apprehension displayed by the unions on the subject of consolidation of the employment rela-

<sup>1</sup> ISFOL – Istituto per lo sviluppo della formazione professionale dei lavoratori (Institute for the development of workers' vocational training).

tionship, making the company less well disposed towards the idea.

If we wish to classify the factors that have made it impossible to organize training periods of this kind for 50% of the courses covered by the trial, based on the estimates in our possession, we can draw up the following list:

- inflexibility on the part of the regional civil service;
- problems raised by companies;
- problems raised by the unions;
- insurmountable structural obstacles.

In short, wherever a substantial degree of planning tension existed the training periods were brought into being, even if not always through the formal channels that had been envisaged during the early planning phase (collective management, tripartite agreements between the unions, employers and the regional authorities, etc.). Although this must have affected the quality of the training projects (and we shall make a first attempt to analyse their merits below), we trust that the reader will excuse a touch of pride, not so much in the concept itself as in the sense of commitment shown by dozens of teachers whose personal and professional enthusiasm made it possible to carry the experiment through – for instance, in many cases they took the trainees to the companies in their own cars, at their own expense.

What was achieved was that 820 trainees embarked upon the practical training courses, 50 firms were brought face to face with the realities of vocational training, some for the first time, and 100 teachers went to the workplace with their students and in many cases had their first experience of the vitality and energy of a company's life.

It may be too early to investigate whether the project achieved its objective of paving the way for links between the trainees taking advantage of the courses and industry (no more than 10% found permanent jobs with the company as a result of the training period although a comparative analysis of this group of trainees and a control group to obtain data on their respective job opportunities would be of special value), but it is not too early to express views on to the cultural integration of workplace experience and theoretical training.

The parameters that can be used to evaluate integration are:

- the percentage of on-the-job training courses in which the work done by the students came within the range of skills they were learning: 90%
- the percentage of trainees who, in expressing their satisfaction with their experience, would have liked both to continue with the practical work and to learn more about the theory simultaneously: 90%. It is obvious that the 10% of trainees who would have liked to see a different balance between their vocational training course and on-the-job experience found the contrast between the two too great; this was not just a value judgment but a symptom of a low level of integration between the two forms of training.

These data, combined with the data on the percentage of trainees who were consistently accompanied by the teaching staff during the on-the-job training courses (70%), show that when the level of integration was low due to practical or technical/cultural reasons the teachers made valiant efforts to make up for the

lack of conceptual precedents by their constant presence and assistance. The southern Italy/European Social Fund experiment lasted from 1975 to 1977 and was conducted only in the southern regions of Italy.

In 1977, coinciding with the decision to extend Article 4 of the European Social Fund to young people, the percentage formula was adopted by other regions in central and northern Italy while, after the first hundred courses, the southern regions planned all their preliminary training activities along the lines suggested by ISFOL.

Today the project has been dubbed the 'Alternation project'. Now that it has entered the phase in which it is being universally applied, the region of Liguria provides an excellent example of how it can be implemented. In this area, not only has there been widespread participation in on-the-job training periods, but the number of trainees who have been hired by the companies concerned on completion of their vocational training has also been large.

#### 'Alternation project' in the region of Liguria

Liguria was the first region in northern Italy to try out the proposals made by ISFOL. As the success of the operation became apparent, it patterned all vocational training courses for young people along the same lines.

In 1976, 484 trainees took part in the experimental project. They were grouped in 26 courses in the industrial sector: 19 in general engineering fields, six in

Table 5: Distribution of companies participating in experiment, with breakdown according to size and area

Area	Size of work-force						Total no of trainees
	15	16-50	51-100	101-300	301-1 000	over 1 000	
1. Savona	—	—	—	—	5	2	8
2. Genoa – Ponente	—	1	—	1	3	2	7
3. Genoa – Polcevera	—	—	—	5	2	2	9
4. Valle Scrivia	—	—	4	2	2	—	8
5. Genoa – Bisagno	1	1	1	2	—	2	7
6. Genoa – Centre	1	—	—	1	2	1	5
7. Levante	8	11	5	5	1	1	31
8. La Spezia	—	—	1	1	2	2	6
Total	10	13	11	17	17	12	81
%	12.4	16.1	13.6	21.0	21.0	14.8	100

Table 6: Distribution of trainees according to company size and area

Area	Size of work-force						Total no of trainees
	15	16-50	51-100	101-300	301-1 000	over 1 000	
1. Savona	-	-	-	-	11	12	27
2. Genoa - Ponente	-	3	-	10	20	23	56
3. Genoa - Polcevera	-	-	-	10	20	23	55
4. Valle Scrivia	-	-	13	4	10	-	27
5. Genoa - Bisagno	1	3	3	5	-	43	55
6. Genoa - Centre	5	-	-	4	11	20	40
7. Levante	10	25	20	18	6	27	106
8. La Spezia	-	-	2	4	9	17	32
Total	16	31	38	55	74	180	398
%	4.0	7.8	9.5	13.8	18.6	45.2	100

electrical engineering and one course for chemical analysts.

Without going into the details of the experiment as a whole, we shall discuss the periods of practical workplace experience, in other words the phase during which study in fact alternated with work.

Preparations for these training periods started in the spring of 1977, when the employers' associations (Federindustria and Intersind) looked for firms which would be prepared to cooperate.

The tables that follow show the number of participating companies with a breakdown according to size and area, and the number of students taken in for training.

In arranging the training periods, due allowance was also made for the need to give a trainee work experience that would be genuinely educational, in other words the kind of experience that both added to his work skills and knowledge and provided a good introduction to the world of work. The criteria applied in selecting the firms providing the work experience were:

- whether the trainees would be introduced into a comprehensive, systematic organizational structure;
- whether they could work alongside skilled and expert workers;
- whether some of the duties assigned to them could be rotated so that they could become familiar with the whole production cycle;
- whether there were constant and many-sided contacts with other workers.

Because of the complexity of the practical arrangements for workplace training periods and the large number of people involved in those arrangements, a 'document of agreement among the parties' was first drawn up. This clearly defined the tasks and responsibilities of each party to the arrangements, in particular:

- the regional authority concerned;
- the vocational training centres;
- the host companies.

In every case, the period of workplace training was broken down into five-day week units. The trainees spent four days in every week, from Monday to Thursday, at the place of work; Fridays were spent at the training centre, reviewing the experience they had acquired during the previous four days.

In general, trainees spent an eight-hour day in the workplace, clocking in and out at the same times as other workers except in those places where shift work was the rule, in which case they kept to the same hours as the day shift.

Each trainee was given a worksheet like the one assigned to the work-force, on which his time of arrival and departure was recorded on each day of attendance.

The average length of training was 300 hours, spread out over two consecutive months.

The overall distribution of trainees based on the work sectors to which they were assigned was as follows:

- 55.8% of trainees were assigned to production work;

- 15.6% of trainees were assigned to departments connected with the production cycle (quality control, process control, technical sections, etc.);
- the remaining 27.6% were assigned to maintenance departments.

The most common arrangement was for the trainee to work alongside expert workers who were able to convey the basic knowledge needed in order to understand the jobs upon which he was engaged, so that he could later work on his own at the work station. In cases in which the technology employed called for little technical skill and the training value of the job was quickly exhausted, the trainees were moved from one work station to another on a rotation basis.

The experience derived from workplace training periods provided the first opportunity to assess the interest shown by industry in cooperating with the regional training authorities on a new and different type of vocational training - different in that it was designed with the real needs of industry in mind and in that the most advanced teaching methods were applied in its planning.

It is difficult to assess the quantitative results in terms of social development and enrichment of the trainees' personalities, but it is considered that - at least culturally - these training periods in themselves provided a stimulating opportunity for contact with an adult environment, with all its wealth of impetus and tension.

For many young people, the period spent in the workplace and the need to stand

on their own feet and display a sense of responsibility provided an invaluable experience of life.

In numerous cases, the direct contact with problems of a union nature and the problems that arise in a working environment helped the young people to become more generally mature.

#### *European Community pilot projects for the combining of work and study*

The joint efforts of those responsible for vocational training and for production could, by introducing realistic and practical measures to interlink their two fields, add a new dimension to vocational skills that will be of value when reviewing national education policies.

This theme of unity of purpose is reflected in various ways in the pilot projects envisaged by the resolution passed by the EEC Council and Education Ministers on 13 December 1976, designed to improve the preparation of young people for work and facilitate their transition from education to working life.

Of all the EEC Member States, Italy is the country with the largest number of pilot projects in the experimental field: 18, in 11 Italian regions.

The Italian programme, drawn up in the light of a preliminary study by CENSIS,<sup>1</sup> chose the following four types of action as its priorities, bearing in mind the themes formulated by the EEC Council resolution:

- the launching of an organism and action to secure close links between the school system and the productive and operational world, at school district level, by means of vocational briefing activities, introduction of young people to the world of work and guidance in the schools. Four sub-projects were started along these lines by a vocational guidance centre at Trento, in the province of Trento; the department of education and culture at Poggibonsi in the region of Tuscany; the Associazione Italiana di Orientamento Scolastico e Professionale – AROSP, or Italian association of school and vocational guidance – at Frascati (Rome); and the international university residences, RUI Foundation, at Chieti.
- alternation between school and work, in both directions: both to provide

training experience in work for secondary school pupils and to give young people, who started work very early, a chance to return to school for a period. Seven sub-projects were created with these aims in mind by the Centro Innovazione Sperimentazione Educativa – CISEM, or centre for educational innovation and experiments – in Bollate-Arese, Milan; the A. Ruiz technical and commercial institute in Milan; the textile centre under the Carpi municipal authority in Carpi; the Associazione - per lo sviluppo dell'istruzione e formazione professionale – ASIP, or association for the development of vocational education and training – of Rome, in cooperation with the Istituto Professionale per il Liuto of Cremona (the professional stringed instrument makers' institute). the sub-project being based in Cremona; Ente Nazionale Acli Istruzione Professionale – ENAIP, or Italian Christian Workers' Associations vocational training board, in Rome; and the T. Buzzi State industrial/technical institute at Prato and the Centro innovazione Tecnico Educativa – CITE, or educational technical innovation centre – in Bergamo.

- the provision of training and refresher courses for technical education teachers in schools for pupils below the minimum leaving age. There is a national project at Albano (Rome), organized by the Education Ministry's intermediate school department and ISFOL and two local projects, is organized by ENAIP<sup>2</sup> in Liguria and Trieste.
- combined psychological, sociological and educational efforts to instil a fresh sense of motivation in unemployed and unqualified adolescents who have lost interest, dropped out of school and given up their studies. There are five sub-projects along these lines: the Centro Nazionale Opere Salesiane – CNOS, or national centre for Salesian works – at L'Aquila; CNOS in Verona; ENAIP<sup>2</sup> in Naples; CIAPI, Centro Italiano Addestramento Professionale Industria (Italian centre for vocational training for industry) in Palermo; and Movimento Collaborazione Civica (MCC – civil cooperation movement) in the fifth district of Rome.

Trials based on these 18 sub-projects have already started, combined with the work of coordination and assessment. Each sub-project is monitored and guided by a technical/operational team

at local level, which will call in experts for advice when problems arise during the experiments. In addition, there will be a national coordinator and a national assessor for each of the four Italian types of pilot project. Each of these, on different but coordinated levels, will be the moving spirit in individual sub-projects by organizing visits, research meetings and the pooling of experience.

These are, very briefly, the salient features of the EEC experimental pilot project proposal. In view of the wholehearted way in which the proposal is being carried out, it is to be hoped that an effective contribution will be made and that more concrete and functional interaction be created between the training system and industry, even though each will continue to be relatively independent. If this and other objectives are achieved, the Italian school system will be preparing its young people for a brighter future than the scrap heap of unemployment.

#### *Apprenticeship*

Article 2 of Law 25, 19 January 1955, defines apprenticeship as follows: 'Apprenticeship is a special employment relationship under which an employer is under an obligation to train, or arrange for the training of, an apprentice taken into his employ, within his own company, as necessary to enable him to attain the technical ability to become a skilled worker, making use of the apprentice's work in that company'.

The special feature of the relationship is that the two characteristic elements of the employer/employee relationship – the giving of labour in return for remuneration – are combined with another determining factor: the practical training and further education that an apprentice needs to become a skilled worker. Apprenticeship, therefore, can be viewed from two aspects: it is an employer/employee relationship on the one hand and, on the other, it is an instrument of vocational training.

The 1955 law also covers: the recruitment of apprentices (through the placement bureau); the permitted age group (14 to 20); the duration of apprenticeship (a point that is referred to collective labour contracts; and hours of work,

<sup>1</sup> Centro Studi Investimenti Sociali, Rome.

<sup>2</sup> Ente Nazionale dell'Istruzione Professionale.



with a maximum of an eight-hour day. No apprentice may be employed on piece-work or on mass production work.

Apprentice training should be a combination of immediate introduction to work and vocational training through release for compulsory attendance of theoretical and further education courses. The number of hours to be devoted to further education – which are deemed to be hours of work for all purposes – has been increased to 200 hours per year, involving eight hours a week, in all those cases not covered by contracts of employment and with effect from 1 January 1971.

On the subject of the curriculum of supplementary courses, it has been laid down that the syllabuses must comply with ministerial requirements and that, on completion of the period of apprenticeship, fitness tests will be taken and the qualifications obtained will be entered in the individual's employment card.

Despite the slight modifications, the institution of apprenticeship has proved unsatisfactory. In actual practice, it has been found that the employers have

blatantly ignored even the most basic requirements and have been using apprentices merely as young people to be put to work on hourly paid jobs; above all, they have taken advantage of the fact that the social security charges are lower.

The apprentices themselves have good grounds to complain of the effectiveness of the practice in their training. For their part, the unions argue that they are trying to ensure that the law is enforced or at least that these young workers are assisted through the instrument of collective bargaining. The unions have reached the fundamental decision – stated many times – that the existing institution of apprenticeship should be ended. There is a uniform trend in collective agreements to reduce the length of apprenticeship and to increase pay to a level closer to that of adult workers. By taking this path, the unions feel that a more realistic situation would be achieved in which the justification for apprenticeship would wane until it could in fact be abolished. They point out that the regulations as they stand have helped to create a large pool of cheap labour with few prospects of occupational or social betterment rather than creating a training system truly capable of improving young peo-

ple's vocational skills and career prospects, with the honourable exception of the results achieved by a few small firms and by craftsmen.

Many proposals have been advanced on apprenticeship, suggesting improvements to the existing regulations or looking forward to more radical solutions. In the legislative field, Presidential Decree 10 of 15 January 1972 has delegated responsibility for vocational and craft training to the regional authorities; this responsibility includes the training of apprentices, although the powers of government bodies to regulate the legal status of apprentices and their employers remain unchanged.

The provisions of the recent outline law on vocational training have been discussed in the chapter on legislation.

Parliament is currently debating the reform of apprenticeship.

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# D

## Introduction

Of all the member countries of the European Community, the Federal Republic of Germany certainly has the most comprehensive system – in terms of both quantity and quality – of ‘alternating initial vocational training’, i.e. the cooperative form of vocational training combining both on-the-job training and part-time vocational school.

This system has grown up historically and cannot be derived directly from vocational teaching or educational policy objectives of the central government. Practical, craft-type vocational training predominated until the end of the nineteenth century, being supplemented only at the beginning of the twentieth century by theoretical/in-school vocational training. For a long time, however, the school and industrial aspects of vocational training continued to evolve independently of each other. This gave rise to a state of tension which still persists today, and often has adverse effects from the point of view of vocational teaching in regard to coordination of the two aspects with one another. The ‘dual system’ of vocational training in the Federal Republic, in which school and place of work are intended to complement each other in an orderly fashion, each side being assigned its particular complementary role with cooperation and continuous coordination, does not yet exist even today in its pure form. This means that there is still a lack of balance between the importance of the school and enterprise parts of the training, or between the training and work aspects. In purely quantitative terms, this is reflected in the fact, for example, that part-time vocational school:

- takes up only one working day per week in the industrial/technical occupations of industry and commerce,

with about seven 45-minute actual periods of instruction (as against the 12 envisaged by the law) and

- comprises one and a half to two day’s instruction in school for occupations in the commercial and retail sphere.

This means that the subject’s time can be scheduled by the firm on most days of the week. For this reason the relative proportions of training and work vary hugely from one firm to another, according to vocational group, size of firm and control (i.e. internal control) exercised.

From the qualitative point of view, and arrangements governing the training situation and examination conditions are decisive. It is evident in this connection that the on-the-job training even today takes clear priority (see under ‘Mechanisms for coordination between theoretical in-school and on-the-job training and/or practice’, page 29).

Certain recent developments such as the institution and extension of the ‘basic vocational training year’ and the ‘vocational preparation year’ and step-by-step increases in the proportions of school and part-time training (a second day at vocational school even in the industrial/technical field), indicate that greater balance between the in-school/theoretical and on-the-job/practical parts of the training is increasingly being aimed at. However, the current state of development varies with the type of firm and vocational group on the one hand and with the *Land* (region) in which the training takes place on the other.

## The various forms of part-time instruction

As indicated in the introduction, the proportions of part-time instruction

vary, in particular, as between the industrial/technical sectors of the economy (metal, electrical engineering, building construction, timber) and the commercial sectors (retailing and wholesaling, purchasing, sales, information processing), being as a rule twice as extensive in the latter as in the former. As a result, better coordination with firms’ requirements is possible in the latter case.

### *Bodies responsible for instruction, funding and organization*

In the industrial/technical sphere, all instruction takes place in vocational schools, which are under the control of the city, administrative district (*Kreis*) and *Land*. These three administrative units often share the funding, although the breakdown varies from *Land* to *Land*. Like all other publicly run schools, therefore, they are also financed from public funds.

Part-time schooling is compulsory up to the age of 18 regardless of whether or not the student engages in initial vocational training in the form of an apprenticeship; for this reason the administration ensures an adequate provision of school training places at vocational school in both rural and urban areas. Any person concerned can satisfy this schooling requirement within a catchment area of not more than about 15 km. However, in some *Länder*, persons who might otherwise be unable to find a job may be exempted from the compulsory schooling requirement. A number of *Länder* also exempt from the requirement of part-time schooling, persons who have completed a tenth school year in a general school, in the form of a basic vocational training year or in that of a vocational preparation year. In other *Länder*, ten years’ compul-

sory schooling is being introduced at the beginning of the academic year 1979/80. The requirement of compulsory part-time schooling will then also be removed for persons who do not wish or are unable to engage in an apprenticeship.

Teaching and learning facilities are normally also free of charge at vocational school. Students do not have to pay school fees, and receive a fare allowance depending on the distance from home to school.

The provision of vocational school places and the evolution of the number of the places are coordinated between the *Länder* and the Federal Government. The body with particular responsibility for this is the 'Federal Government' *Länder* Commission for Education Planning and Research Promotion', in Bonn, which helps the two levels of administration to coordinate their planning.

#### *Curriculum and contents*

Students normally attend part-time vocational school for three years, which is the same as the average period of an apprenticeship. The content is mainly theoretical, consisting of such subjects as:

- Paperwork (correspondence, filling-in of forms, report-writing, etc.)
- Social studies (labour law, insurance, civics, applicable law, etc.)
- Theory of the relevant subject (theoretical foundations of the industrial/technical or commercial subject chosen)
- Mathematics applied to the relevant subject (detailed instruction in the basic aspects of mathematics with particular reference to those required by the relevant subject – algebra, trigonometry and geometry)
- Technical drawing and three-dimensional representation (technical/industrial occupations only)
- Typing and shorthand (commercial occupations only)
- Scripture (not compulsory)
- Sport (in rare cases only).

Practicals feature hardly at all at part-time vocational school. Depending on subject, physical or chemical experiments – e.g. in the context of the theory of the student's main subject – may be con-

ducted; simple laboratories often exist for this purpose. In the commercial sphere, some practical work is done with typing, shorthand and sometimes cathode-ray tube display devices, punched card machines, etc.

In the agricultural sphere, instruction is often understandably compressed into block courses during the winter. It has long been possible in the commercial sphere first of all to attend an all-day school for one to two years, followed by an abbreviated apprenticeship one and a half to two years according to the relevant qualification). As the basic vocational training year gains increasing acceptance, this is coming to be more and more possible in the technical/industrial field as well. However, part-time school attendance remains compulsory, or else an apprentice may continue to attend part-time school if he and/or the training firm so wish.

Supervision in the relevant subjects is a matter for the Ministries of Culture/Education of each *Land*. There is some degree of coordination at Federal level through the 'Standing Conference of *Länder* Ministers of Culture/Education' in Bonn.

#### *Teachers and students*

Teachers have normally graduated from a university, technical university or comprehensive university, where they will have specialized in the subjects (at least two) which they represent. In addition, they must provide evidence of a period of practical vocational experience in the relevant sector. Graduate engineers and bachelors of commerce may also qualify by an additional course in the field of vocational teaching.

There are also workshop teachers and technical instructors, who have often qualified in industry as master craftsmen or foremen.

Unlike their counterparts at grammar school (*Gymnasium*) and secondary modern school (*Realschule*) the students in a vocational school have only one teacher (apart from the technical teachers), who covers all the subjects mentioned above, the only exception being social studies, scripture and sport. Class sizes vary with the subject and catchment area of the school. The occupations with the largest numbers of trainers – e.g. electricians or retail trades

– often have classes of over 50, whereas classes in other subjects may have less than ten students (e.g. violin-makers). Students of both sexes are educated together; however, the sexes are often separated because of the occupations chosen.

Vocational school is a recognized necessity for the trainees, and is often regarded as a welcome change from the daily routine of the firm. For young manual and white-collar workers who have taken unskilled or semi-skilled jobs without an apprenticeship, vocational school is less attractive jobs without an apprenticeship, vocational school is less attractive and tends to be regarded more as a nuisance. For this reason the decision of some *Länder* to stop enforcing compulsory vocational school attendance or to exempt young people from it is welcomed by those concerned. These young people are usually unaware of the possible disadvantages of this decision for the future. On the other hand, for obvious reasons, many employers are also urging these young workers not to take up their rights and/or fulfil their duties.

#### *Importance of part-time education in the context of the provision of initial vocational training and vocational preparation*

As stated in the introduction, vocational school – whether in part-time form or in that of block courses – has assumed increasing importance in the field of initial vocational training. However, since the mid-1960s the gulf between vocational school and industrial practice has widened somewhat owing to the higher academic qualifications now required of teachers. In the past, a vocational school teacher, like his or her student, had to complete an apprenticeship in the relevant subject and could then qualify as a teacher by additional studies. Only a small minority needed a full university degree. This situation has now changed drastically. A new generation of university qualified teachers has moved into the vocational schools. They are selected by similar criteria to grammar school teachers and graded in the same way. While the quality and standard of teaching has improved although the material taught has hardly changed, another consequence has been neglect of the requirements of those young people who are less accustomed to think in abstract categories and/or who set less store by academic achievement. In this way the

selective function which in general predominantly characterizes academic and grammar school education is increasingly penetrating into vocational education, supplanting content related to practical vocational needs.

On the other hand, those who have successfully completed this training now have a better chance of participating later in advanced and further education just as successfully as grammar school-leavers, and this is happening increasingly in actual practice.

To sum up, part-time instruction during apprenticeship is increasing in both quantity and quality compared with on-the-job training and vocational practice. Again, many firms, sometimes in collaboration with vocational schools, have themselves introduced a second day at vocational school or a second day of in-firm theoretical instruction even for industrial/technical trainees. This applies particularly to publicly run bodies such as the German Federal Railways and Federal Post Office, but also to large-scale private industries.

For young manual and white-collar workers who have taken unskilled or semi-skilled jobs, however, the importance of part-time education is declining. For this group, the extension of full-time compulsory education to the tenth school year is regarded as an alternative to compulsory part-time schooling (see, for example, the new legislation in Berlin and North Rhine-Westphalia).

## **On-the-job training and/or on-the-job practice**

On-the-job training and practice is still more important than school and theoretical education in spite of the increase in the proportions of the latter, for, with a few exceptions, it is not possible to qualify at the end of a period of initial vocational training without the conclusion of a training contract (formerly, an apprenticeship contract) with a firm. Like a contract of labour, a training contract is a contractual relationship in private law, which can only be terminated prematurely in the event of infringement by one or other of the parties of existing laws such as the Vocational Training Law, the Youth Protection Law or the labour laws. This training contract is not connected with a contract of labour, i.e. it ends immediately when the training finishes. The student has no right to

continued employment, whether or not he or she ends the period of training with the appropriate qualification.

The Training Codes form the basis of the contractual requirements which must be observed. The firm is already subject to monitoring of the observance of these requirements under the Vocational Training Law, but it is in addition also subject to supervision by the Chambers in connection with the conduct of the ongoing training consultations. The subject-matter of the results achieved is also assessed in intermediate and final examinations. The Chambers are in turn subject to supervision by the competent State authorities. The Chambers also have vocational training committees whose membership is made up on a basis of parity and which must be involved in all important matters.

Until about 1974, however, there was an unwritten agreement between the trade unions and bodies representing youth on the one hand and the employers on the other under which persons engaged as apprentices or trainees would continue to be employed as skilled workers (in industry), journeymen (in crafts trades) or assistants (in the commercial and agricultural spheres), provided that this was in line with the trainee's wishes.

With the deterioration of the position on the labour market and the contraction of the market for training places since 1974, however, this agreement was tacitly dropped by both sides, since it was felt that training was preferable to unemployment.

Freed from this moral obligation of continued employment, many firms have since contributed to increasing the provision of training places whether or not they could guarantee subsequent continued employment.

### *Organization and funding of practical/on-the-job training*

The organization of training remains based on the State Training Codes for individual firms. The Chambers (Chamber of Industry and Commerce/Craft Chamber/Agricultural Chamber) have a public law responsibility, assigned by the Federal Government, to monitor the quality and quantity of the training and its translation into practice. Intermediate and final examinations of a predominantly practical and technical

nature are held by the Chambers, whose examination committees conduct intermediate and final examinations for all occupations. Finally, the Skilled Worker's Certificate, Journeyman's Certificate or Assistant's Certificate is issued by the relevant Chambers in the catchment area of the firm to the trainee when he obtains his qualification.

Funding of on-the-job training is the responsibility of the firms themselves. The cost of a training place differs substantially according to the size and nature of the firm and the relevant subject and economic sector. The work done by apprentices must be deducted from this cost, as this saves the firm expense. It is very difficult to determine the level of the net benefit or net cost. As a rule, however, the cost exceeds the benefit, unless the fact is taken into account that firms in this way acquire a body of reliable and loyal staff who often remain with them for a long period. In the last few years, the State has begun to provide financial support for the creation of training places in problem regions, thus participating financially in the promotion of training place provision.

There is also a new funding instrument (the 1976 Training Place Promotion Law), but it has not yet been applied. Where there is a substantial imbalance between the supply of and demand for training places, this law makes it possible to set up a levy fund among firms, thus ensuring that firms which provide less training also make their contribution to the funding of vocational training, while firms which train over and above their own requirements can receive more support. Owing to powerful resistance from industry on the one hand, and since this law fails to differentiate sufficiently between regions and sectors on the other, it has not yet been implemented, although the imbalance between supply and demand would have provided a sufficient legal basis for this.

Again, the psychological effect of this law probably made firms more inclined to provide training, thus increasing the supply of training places.

Vocational preparation facilities for school-leavers who fail to find either a training place or a job after leaving school have received increasing financial support from certain *Länder* in the last few years, even if this preparation takes place within firms. This has usually been done, and is still being done, in collab-

oration with the Labour Administration, which also notifies young people of appropriate vacancies as trainees or young workers on a temporary basis. Firms receive a grant for each young person they engage under such a programme. The apprentices are entitled to training remuneration in accordance with a collective agreement, its level varying with the sector concerned. It increases with each year of training, sometimes substantially. At present it is about DM 200 per month in the first year of training, increasing to about DM 1 000 per month in the third year.

The State also provides substantial support where centralized training establishments are set up by Chambers or guilds (see also 'Mechanisms for coordination between theoretical/in-school and on-the-job training and/or practice').

#### *Curriculum and contents*

Training Codes are promulgated by the Federal Minister for the Economy after consultation with the employers' and workers' organizations and in collaboration with the Federal Ministry of Education and Science (there are at present about 450 different Training Codes); these include in considerable detail all the skills and contents which the student should have learnt during his period of training.

The period of training ranges from at least two years (e.g. motor vehicle mechanics and machine fitters). Where the student has completed a basic vocational training year – basic training in the relevant vocational field following the ninth full-time school year – the period of on-the-job training is normally reduced by one year. (However, this does not apply in the case of the vocational preparation year, which has also recently been increasingly adopted.)

The Federal Institute of Vocational Training, on whose central committee the Federal Government, the *Länder* governments, the employers' organizations and the trade unions are all represented, coordinates the preparation of new Training Codes. Many new Training Codes have been issued in the last few years, some of them replacing several old ones – i.e. a number of trained occupations have been combined in a single trained occupation.

Formally, these Training Codes concern only the regulation of on-the-job training conditions and the relevant contents. Since each *Land* has its own Ministry of Culture/Education, the *Länder* can also organize their vocational school education independently of the Training Codes controlled at Federal level. In practice, however, the vocational schools endeavour to match their contents to the examination requirements of the Training Codes.

Firms are required to impart such theoretical information as is essential for the performance of practical work and for the appropriate handling of machines and tools. A number of large-scale industrial and other undertakings and many publicly owned bodies also provide theoretical instruction of their own, often extending to half or even a whole working day.

In the industrial/technical field, the first training year is spent, in most industrial undertakings, in teaching workshops, where the basic skills, such as filing, drilling, sawing, turning, milling, bending, stamping, forging, etc., are taught. This means that the trainees are not yet directly involved in production, but usually carry out practical exercises, which are assessed and marked like schoolwork. A certain time after assessment, the product is destroyed or re-used. This means that productive work is not normally carried out in the first year of training, the work of the trainees consisting mainly of exercises.

In contrast, in small-scale craft establishments and also in commercial subjects, the apprentice is involved from the beginning by a master craftsman and/or the journeymen or assistants in the practical work, whose degree of difficulty is gradually increased.

However, the guilds or trade organizations in these fields, with the support of the Federal Government and *Länder* governments, have in the last few years increasingly set up centralized training establishments to impart basic skills, combining apprentices from a large number of small firms in block courses or day courses.

In large firms, industrial/technical and commercial trainees move after the first year of training (or from the beginning in the case of the latter) from one department of the firm in the relevant field to another, so as to familiarize themselves

with and to practise the different working methods and tasks and production skills. They normally change departments at three-monthly intervals, so that during a two-year training period a trainee will have got to know up to eight different departments.

The consequence of this is a comprehensive knowledge of the workings of the firm in the relevant field, on the one hand, and a socializing effect through increasing identification with the requirements of the firm, on the other. When he completes his training, and if he continues to be employed by the firm, the young skilled worker or commercial assistant can then often choose the department which most suited his inclinations and capabilities. It is very much in the interests of the firm, for its part, to comply with these wishes, as it can then assure itself of the commitment and loyalty of the young employee.

#### **Mechanisms for coordination between theoretical/in-school and on-the-job training and/or practice**

As stated in the introduction, there is still a state of tension between the enterprise and vocational school. A large number of possibilities for coordination between the two exist, but these are utilized only to an unsatisfactory extent. There are 'vocational training committees'<sup>1</sup> at the various levels (Federal, *Land* and administrative district (*Kreis*)); in addition, there are the self-administration bodies of the Labour Administration, which not only acts as a general job agency but also provides vocational guidance and a training placement service, and the Chambers, guilds and trade organizations. Whereas the vocational training committees and the Labour Administration are tripartite bodies (the employers, the workers and government are represented in the relevant proportions on the supervisory bodies), the Chambers, guilds and trade organizations are combinations or associations of firms. Although workers have a right of consultation and to some extent also of participation in the associations, they never play a leading part in their activities.

<sup>1</sup> The Federal Vocational Training Committee was abolished in 1976 and replaced by the central committee of the Federal Institute of Vocational Training, on which the *Länder* are now also represented.

Like the employers' and workers' organizations, the Chambers and trade organizations have representation at Federal level, e.g. through the Deutscher Industrie- und Handelstag (German Congress of Industry and Commerce) (DIHT) and the Handwerkskammertag (Congress of Crafts Chambers). All employer-orientated individual associations and organizations have also joined together at Federal level for mutual consultation and coordination in the field of vocational training. The forum in this case is the Kuratorium der Deutschen Wirtschaft für Berufsbildung (German Industry Committee for Vocational Training) in Bonn, formed at the beginning of the 1970s. The DIHT, the Zentralverband des Deutschen Handwerks (German Central Craft Industries Association) (ZDH), the Bundesverband des Deutschen Groß- und Außenhandels (Federal German Wholesale and Foreign Trade Association) (BGA), the Bundesvereinigung der Deutschen Arbeitgeberverbände (Federal Union of German Employers' Associations) (BDA), the Bundesverband der Deutschen Industrie (Federal Association of German Industry) (BDI) and the Bundesverband der Freien Berufe (Federal Association of Liberal Professions) are all represented on this committee, which endeavours to combine and reconcile the interests of the various employer-orientated organizations.

The trade unions in the Federal Republic are organized by economic sectors: metal (including electrical engineering); chemical industry; paper and ceramics; building construction; public services transport and communications; timber; commerce, banking and insurance; to mention only the most important. These represent the interests of trainees and workers as a whole in their sectors. All have committees competent to deal with matters of vocational training at the various levels (Federal, *Land* and administrative district (*Kreis*)). They are represented on the vocational training committees mentioned above.

There is also a teachers' union, the Education and Science Union (GEW), which, however, has so far not been prominent in the field of vocational training owing to the competence of the relevant unions on the one hand and that of the German Confederation of Trade Unions (DGB), to which all the specialist unions and GEW are affiliated, on the other. All Federal-level activities on the workers'

side in the field of vocational training coalesce in the DGB.

These two organizations of the two sides of industry, the German Industry Committee for Vocational Training and the Vocational Training Department of the DGB, in this way early on influence the configuration, reorganization and development of vocational training. Any new legal initiative by the Federal Government in the Federal Republic of Germany in the field of on-the-job vocational training is not feasible without prior agreement between these two organizations. Revision of the system of vocational training is initiated by specific coordination procedures between these two organizations.

At Federal level, coordination between the above organizations constitutes a preliminary to the work of the Government, but it takes a much more concrete form at *Land* and administrative district (*Kreis*) level. This also applies at the level of the employers' and workers' organizations for specific industries and trades, at which many matters can be regulated better than by Federal-scale initiatives (the outstanding example is the vocational training promotion fund set up jointly by the construction industry and the relevant trade union; another example is the 'Basic data for reorganization of vocational training in the metal sector' jointly compiled and issued by the metal industry employers and that industry's trade union in 1978).

Such manifestations of cooperation between employers and workers are generally followed by a corresponding Government initiative.

At *Land* and administrative district level, the vocational training committees have an advisory function for government, for instance, with regard to expansion of the in-school provision of vocational training at vocational and technical schools or the setting-up of centralized training establishments. On the latter point, it was not possible to utilize all the resources made available by the Federal Government for the setting-up of centralized training establishments, because insufficient initiatives were forthcoming from the Chambers and trade organizations. The regional distribution of the provision of training places was to be improved by this initiative on the part of the Federal Government. However, this has not yet occurred to a sufficient extent owing to lack of support by potential operating organizations (Chambers and/or guilds).

## Recent developments and outlook

In contrast to the positions and demands made by the trade unions up to 1976, the requirement that initial vocational training be integrated into the school system, on the one hand, and the view that the Chambers should be released from responsibility for on-the-job vocational training, on the other, have been progressively abandoned, largely owing to trends on the labour market and the difficult position of many young people leaving school and wishing to start their working lives. Again, neighbouring countries, in which the transition from school to work is much more abrupt, are experiencing even greater problems in this sphere, and as a result the 'dual system' is no longer fundamentally called into question in the Federal Republic. However, the trade unions are demanding the provision of a tenth compulsory general school year and an eleventh basic vocational training year for all school-leavers. In addition, firms' selection procedures for the acceptance of candidates for training and their tendency to reject candidates as 'unsuitable' for a training situation are strongly criticized. Stricter monitoring of these engagement procedures is one of the demands being made in this field.

The employers, for their part, reject an extension of compulsory schooling and are sceptical about increasing the available facilities for the basic vocational training year. What they demand is an increase in financial incentives and/or tax allowances to stimulate increased investment by industry in the training and further training of their work-force. Increasing the provision of school-based training for skilled workers, journeymen or assistants is widely regarded as a great danger to the dual system. Even in regions with weak industrial infrastructures and/or substantial shortages of skilled labour (e.g. West Berlin), the employers' side is seeking to prevent the provision of such facilities by government, owing to the fear of creating precedents which might endanger the powerful position of training in enterprises.

Although the employers agree to the conduct of pilot projects, they reject the extension of the provision of training to the level of skilled worker and journeyman in schools and similar institutions because their experience so far indicates that the objective of vocational

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qualification is not achieved in the required manner by in-school training. They also feel that the supply of training places can only be increased in parallel with the demand in the context of measures for regional economic promotion.

Notwithstanding these differences between the employers and the workers, some *Länder* have taken steps, as a part of their responsibility for education, to introduce a tenth compulsory school year, and some *Länder* – e.g. Berlin and North Rhine-Westphalia – have already

done so. However, this tenth school year may consist of general education, basic vocational training or vocational preparation, and not purely of general education as demanded by the trade unions.

The basic vocational training year is to be substantially extended by the mid-1980s, so that the majority of young people can complete such a year before commencing on-the-job training.

This is expected to substantially lighten the burden on the tight market for train-

ing places, by virtue of the fact that the basic vocational training year would be counted as the first year of training, thus reducing the period of on-the-job training accordingly. The burden on the labour market itself is to be lightened by the increase in the period of compulsory school attendance and expansion of the educational provision at higher levels. The first positive indications to the effect that this is happening became evident during the course of 1979.

*Burkart Sellin*  
CEDEFOP, Berlin

# B

## Different types of part-time education

It is sometimes difficult to gain acceptance for the type of training where theoretical knowledge acquired in school and practical knowledge gained in work environment are contrasted or even considered as running parallel. The arbitrary distinction is often questioned in educational circles where attempts are made to create 'mock' work conditions in school workshops, laboratories and classrooms, whilst firms which select training officers from among their senior staff members take care to circumvent the usual criticism of on-the-job training, that the apprentice is not given sufficient academic grounding.

This is particularly true in Belgium, where, properly speaking, combined training in schools and on-the-job does not actually exist, but where both in the working world and the teaching profession a very real concern is often shown, on one hand, to encompass in vocational training wider cultural goals, and on the other hand to match up education with the actual demands of everyday working life.

Historically, the gap between school and work has widened over the years due to the direction which technical and vocational education took at the beginning of the century under the influence of the century under the influence of authorities who were more concerned with socio-cultural objectives than vocational ones.

This tendency was clearly visible in the hierarchy of values exhibited in the educational structure, where general studies were deemed more important than technical ones, and technical ones more important than vocational ones, workshop (practical) classes being allot-

ted fewer and fewer periods in timetables, at least in those designed for more able pupils.

To change from a workman's blue overalls into a technician's white coat or an engineer's grey flannel suit became the sign of promotion.

Practical lessons were given by ex-workers whose cultural level was a far cry from that of the teachers of general subject, with qualifications to teach in the junior secondary school, or of university graduates, technical engineers or graduate engineers.

Senior technical secondary education became 'Technical humanities'. At present, the trend is still continuing in the new form of secondary education, where technical and vocational education tend to be absorbed into a common system directed towards general goals rather than to vocational training.

This movement is certainly responsible for the lack of interest of the majority of the working class in manual trades and for the shortage of qualified workers in many professions. It is particularly marked among women who are traditionally pushed towards 'feminine' trades by teachers, firms and by their male co-workers.

Increased possibilities for part-time education did little to improve matters. There was very rarely any synchronization between practical work done at school and the kind of job which the worker did in the factory, drawing-office or laboratory during the day. Up until 1969, it seemed as though educational establishments and firms were oblivious of each other's existence, apart from odd, informal, contacts in certain regions between teachers anxious to find

jobs for their pupils and employers on the look-out for suitable staff.

The problem becomes rather different if we move outside the realm of education and look at the kind of training, offered by various organizations acting on behalf of the Ministry for Small and Medium-Sized Enterprises and the Ministry of Employment and Labour, which is centred on practical training.

### *Part-time education offered by the Ministry of Education*

#### ● Long courses

Junior secondary education (up to about 14 years) provides three years of schooling for children and adolescents in its traditional structures which are either complete in themselves (vocational) or which constitute the three preparatory years for a more theoretical type of technical training. The same course content when taught in evening classes to pupils who are already working is spread over several years (up to four or five). These courses provide a *last chance* for workers who have not had the opportunity of continuing their studies beyond the end of compulsory schooling to obtain the desired certificate or diploma. This kind of education is of long standing, dating from the beginnings of technical education itself. Before the advent of the five-day week, classes were held on Saturdays and even on Sundays, and the schools were known as industrial schools because they were the 'nurseries' where employers came to look for budding junior staff supposedly endowed with exceptional courage.

Since 1950, these evening classes have experienced a slow and probably irreversible decline, for they no longer respond to the needs of the community at



large nor to those of the world of work. In addition, they do not correspond in the least to the definition of education as accepted for the purposes of this report, since the time spent 'by day' in the place of work has very little in common with the contents of the 'evening' classes.

● **Short courses**

While the objective of long courses is to enable workers to advance vertically, the purpose of short courses is to allow them to move horizontally. The courses are designed to improve career prospects (without leading necessarily to higher qualifications) for those who are already at work and who would like to specialize, learn a new skill or up-date their knowledge. The length of such courses is never more than one academic year (40 weeks). They may consist of specialization, advanced studies or even parts of the long courses (certain sections or a reduced number of hours).

This new type of 'evening class' (provided for in a 1969 royal decree and described in Ministerial Circulars in 1970) was a real attempt to adapt school curricula to working needs. It therefore represents a new departure in the traditional school environment, but its development has been hampered by being restricted to the methods which were already in use for long courses. Because of this, the gap between work and schools still exists, and it is only where some freedom of action has been possible (in non-State and provincial establishments) that these short courses have really become relevant to students' working life.

● **Responsibility for education**

Most vocational and technical schools which teach children and adolescents during the day also organize evening classes described as 'social advancement courses'. The State is only responsible for a few such courses (20 %) the others being organized by the Catholic Church (38 %) and local authorities (provinces 10 %, boroughs 32 %).

Since 1958, the year of the Schools Agreement, all schools have been allocated grants under the same system, and the amount of these has been settled and monitored by a committee which is re-

sponsible to the Ministries of Education (French-speaking or Dutch-speaking).

Pupils fulfilling certain conditions can benefit from the provisions of the *law on paid day-release* allowing them to leave their place of work during a certain period in order to attend classes, prepare for examinations or be compensated for other time spent on school work. During these absences, they receive some pay, half of it paid by the State and half coming out of funds provided by a tax on firms' wage bills.

Out of the 160 000 pupils who studied under social advancement schemes in 1978, only 27 000 of them applied for paid day-release. This situation is at present leading the *National Council for Work* to substitute for the idea of paid day-release the one of educational leave for both vocational and more general purposes. In the case of general courses, the entire cost would be borne by the State, whereas the vocational courses would continue, as in the past, to be financed half by the State and half by employers.

*Contents of part-time education courses*

Syllabuses for vocational and technical classes taught on a part-time basis in

evening schools (three or four three-hour lessons per week) are the same as those for vocational or technical junior and senior secondary education. Some even go up to the higher technical level, it being possible to qualify as industrial and even graduate engineers in this manner.

These syllabuses are not therefore in any way adapted to the pupil's 40-hour week with his employer, some of whom do however, especially at examination times, assist their workers or student-employees in their studies by giving time off over and above what the law provides in the way of paid day-release.

On the other hand, syllabuses for short courses can be adapted to the characteristics of firms in a region, or even to particular firms. For example, in the province of Liège some of the study programmes in the local authority's technical schools have been adapted to the demands of the local steel industry.

Some examples from the Ministerial Circular of 20 February 1970 are given below. They were not necessarily applied exactly, since firstly the conditions imposed for their application made this difficult and secondly the relative freedom allowed in grant-aided education enabled even more original programmes to be undertaken:

**Example 1: Industrial welding section**

Long course		Short course		
Diploma		3 certificates = diploma		
3rd year	2nd year	Certificate	Certificate	Certificate
2nd year	1st year			
1st year				
start	start	gas welding	arc welding	argon arc welding
The diploma is obtained after 2 or 3 years of study.		start	start	start

### Example 2: Shorthand and typing

Long course			Short course	
Secretarial			Single year	
1st year	2nd year	3rd year		
Mother tongue	Shorthand and typing	Law	Shorthand	4 hrs
Shorthand and typing	Correspondence	Correspondence	Typing	3 hrs
General courses	Law	Shorthand: exercises	Shorthand and typing exercises	1 hr
				per week

The system of accumulating units is being used more and more, even in some types of long course.

For both long and short courses, curricula cover all areas of industrial and commercial activity. In 1977-78, 45 subjects were offered at the junior technical level, and 67 at the senior technical level, ranging from automobile mechanics, interior design, electronics and photography to decorative design, sculpture, Russian and Chinese, and embracing better known options such as French and English in the Dutch-speaking part of the country, shorthand and typing, electricity, cutting and garment-making (industrial).

#### Teachers and pupils

For the long courses, until very recently, the same people worked as both 'evening class' and 'day school' teachers. However, certain recent directives have restricted double employment and their effect has been to distribute teaching posts to a larger number of teachers. This same regulation has had another result, that of stopping the employment as part of the teaching staff for short courses and certain specialist subjects, of occasional teachers whose principal employment is in industry. Thus, some schools have been able to appoint specialized engineers or technicians with up-to-date qualifications in the latest technical developments (for instance in electronics and data processing, and also

in construction, welding in the petrochemical industry and so on).

	French-speaking	Dutch-speaking
Junior secondary level	44 873	38 927
Senior secondary level	28 212	29 460
Higher (tertiary) level	7 458	10 237
Total	80 543	78 624

(%)

Organizers (%)	State	Country	Borough	Independent
Flemish region	27	11	16	46
French-speaking region	16	10	44	30

#### Comparison with the total number of students receiving initial vocational training and vocational preparation

Because of the way it is organized, part-time education is intended for the working population of 15 years and upwards (end of compulsory schooling); in practice this often means people over 18 years of age, since 60% of young people up to this age are receiving full-

(%)

Age of students	Junior secondary	Senior secondary
Up to 18 years	21	11
19-24 years	24	36
25-34 years	25	30
35 years and over	30	23

In the French-speaking part of the country, this tendency is becoming more and more marked, especially as it is encouraged by centralization in the Ministry of Education, where a Directorate-General has been set up for social advancement education.

In the Dutch-speaking part, on the contrary, social advancement education has remained under the aegis of the Directorates-General for either secondary or higher education, according to the level.

It is difficult to assess what has been achieved as far as actual numbers of pupils is concerned, since it is possible for a pupil to enrol for different parts of a course in several different programmes.

In 1977-78, the following figures were given by the Ministry of Education for participation in social advancement courses:

time education in any case. The normal age of students is therefore over 18, and may often be over 25 years of age.

The law on paid day-release limits this benefit to workers under 40. The new provisions being suggested by the *National Council on Work* would allow any worker to benefit from educational leave, a move which would obviously lead to a growing interest in social advancement studies among older people.

The number of people in part-time education is estimated at more than 200 000, but included in this are many engaged in music or artistic pursuits, in which courses abound, especially in the boroughs.

By 1974-75, the number of workers asking for paid day-release had increased

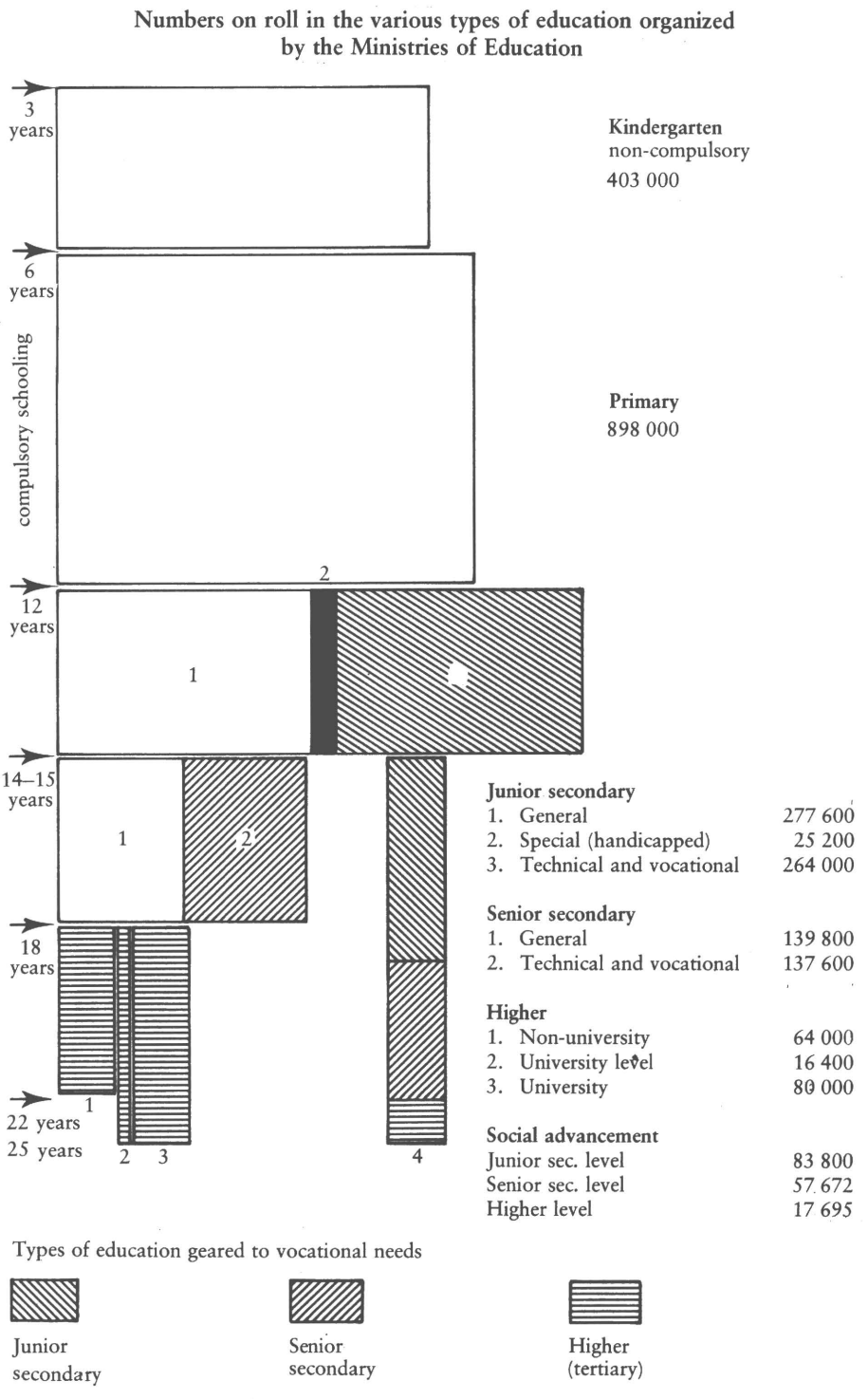
to 17 800 units. There is reason to believe, therefore, that at present, some 25 000 workers are engaged in full-time employment during the day, combined with related training at night. To make these figures more meaningful, they must be juxtaposed with the figures for attendance in full-time studies.

- The school population is greatest in the junior secondary level between 12 and 15 years. It is composed of the normal demographic bulge (approximately 140 000 in each year) plus additional children who have been kept down.
- At the end of compulsory schooling, for each year, there is a departure from school towards work. This does not necessarily mean that all training is abandoned, for in addition to pupils attending evening school (4 = social advancement) others take up apprenticeships (small and medium-sized enterprises) and still others are given training of a practical nature by private or official bodies (these will be discussed later).
- The diagram gives the false impression that training ends at 22 years of age. In practice older people are still studying actively, particularly in social advancement courses.

## Training in the enterprise

For a long time now, certain vocational and technical schools have demanded that their pupils in the terminal sections take a practical course in a firm to finish off their studies properly, or more often, so that they can learn what it is really like in the sector for which their diploma is preparing them.

Apart from a few rare exceptions, these courses cannot really be considered as an integral part of preparation for work. At best they can only be said to provide a slight contact with the working environment, since their objectives are ill-defined for a start, and since the place of work is not properly equipped to fulfil its training role. It is in these terms that we must describe courses in workshops or drawing-offices for industrial engineering or commercial students, which take place during school holidays, and are poorly paid, if at all, and on the fringe of any real channels of production or management.



Apprenticeships, on the other hand, which are organized by the Ministry for Small and Medium-Sized Enterprises, offer young people, who have finished their compulsory education on-the-job vocational training with a craftsman or tradesman or in a small or medium-sized enterprise (SME). Some theoretical studies are undertaken outside the place of work, particularly on general aims and management. The real educator is the craftsman who accepts the appren-

tice, or the head of the department responsible for taking in young people.

This system which stems directly from the guilds of the Middle Ages (the apprentice, the guild member, the master craftsman) aims to pass on to the young apprentices all the knowledge and know-how of the trade which has been acquired by the master or members of the guild. The same training system is used in much larger businesses, quite

apart from any official intervention, to prepare workers specifically for new posts. Examples are the bank clerk behind his window, the bus or underground driver behind his controls, the crane driver in his cabin, the cashier in the supermarket behind his till . . . . This training, first with, then without a controller, is preceded by a period of theoretical and practical apprenticeship outside of the actual production situation. Only firms in strong financial positions can afford to go in for this type of training. However, they can sometimes be helped to do so by means of special legislation which authorizes the Ministry of Employment and Labour often through the intermediary of the National Employment Office, to intervene in various ways so that specific training can be given. This official assistance is often combined with help from the business federations, which are frequently better equipped from the point of view of training experts. Similar steps are being taken with Ministry of Agriculture financing to train young farmers.

*Organization and financing of vocational preparation and vocational training in enterprises*

- **Apprenticeships** (Ministry for Small and Medium-Sized Enterprises) Vocational training for people working at a craft and in small industrial enterprises as well as that of their owners and those known as 'independents' (because they are non-salaried) falls under the authority of the Ministry for Small and Medium-Sized Enterprises and the conditions for this are laid down by a Royal Decree dated 4 October 1976, and by Ministerial Decrees dated 12 January 1979.

These decrees describe a system of further education for the small and medium-sized enterprises; it replaces the previous system of training and refresher courses in trades and shops dating from 1959. Consequently, there are new training objectives behind the legal provisions linking them to the characteristics of the workers seeking such training and to the needs of firms engaged in crafts, small and medium-sized businesses and 'independents'.

The organization of this system is entirely entrusted by the Ministry for Small and Medium-Sized Enterprises to 'non-profit making organizations' according to arrangements which are provided for under the law. These arrangements ex-

tend both to the conception and the realization of programmes:

*A national committee for coordination and concerted action* coordinates the policy on vocational training at the national level and gives opinions to the Ministry to help it to define its objectives.

Two institutes of continuing education (one French-speaking, the other Dutch-speaking) distribute the funds to be used for carrying out programmes and check on the way these are used by *Centres for continuing education* which organize courses, examinations and re-training activities, or by *apprenticeship secretariats* which act as intermediaries in drawing up *apprenticeships* between the apprentice and the head of the sponsoring firm. At present, there are 29 recognized centres and 160 apprenticeship secretariats in the whole of the country.

The cost of the practical training, which generally lasts four years, is borne by the sponsoring employer, who also gives the apprentice a sliding grant which varies between BFR 1 500 and BFR 6 500 per month.

The cost of the theoretical training in centres and of the activities of the secretariats is covered by the Ministry for Small and Medium-Sized Enterprises.

- **On-the-job training of workers in the enterprise itself or with external teachers**

As we pointed out in the introduction to this report, the larger Belgian enterprises train their own staff in special training centres: the National Arms Factory at Herstal, Cockerill, at Liège and Antwerp, Bekaert at Zwevegem, the Société Générale de Banque throughout the country<sup>1</sup> have for many years been organizing special staff training at their own expense, either in the form of theory classes on their own premises, or actually on the job itself.

Similar firms or those having similar training requirements, grouped together in business federations, sometimes pool their own resources and funds obtained from official sources to provide specific training and in-service training. Examples are: the Building Training Fund, Fabrimetal, the Distributive Industry's Social Fund, the Professional Union of Insurance Companies, the Chemical Industries' Federation.<sup>1</sup> In each case, their training activities are organized and funded according to their goals and the

means available. Among these may be mentioned the short courses in social advancement schools mentioned earlier, which are particularly relevant to the theoretical side of the programmes, and training courses in firms financed and monitored by the National Employment Office.

- **Training centres in the enterprise organized by the Adult Vocational Training branch of the National Employment Office (ONEM)**

Among the Adult Vocational Training activities organized by the National Employment Office are training centres in the enterprise. Their main characteristics are that:

- training goals are defined by the enterprise itself, and are usually geared to its specific requirements;
- the means for the training come partly from the enterprise (premises, machinery, working material, teaching material, instructors) and partly from the *National Employment Office* (some or all of the costs).
- trainees' salaries during their period of training are paid either entirely by the enterprise or by the State, according to the hourly rate for ONEM trainees which was BFR 133.5 in July 1979. In the same way, part of the instructors' salaries, if they work in the firm, is also paid by ONEM.

The exact breakdown between the firm's contribution and ONEM's is established in an initial agreement submitted first to the Board of Directors of the firm involved then to the sub-regional Employment Committee for the area. If the two parties agree at the same time, ONEM's management committee settles the details of the arrangement, gives its final approval and monitors progress.

This type of programme by ONEM's Adult Vocational Training branch is the most important among all ONEM vocational training activities in boom times like the 70-75 five-year plan, (accounting for 20 000 out of the 30 000 annual places). The economic crisis has changed priorities somewhat, with centres in the enterprise only accounting for 6 % of ONEM's undertakings in 1978.

To these must also be added the purely financial assistance given by ONEM for staff training when firms start up new

<sup>1</sup> These are not exhaustive lists, and the examples have been chosen to give an idea of the range of organizations involved.

activities or extend or restructure all or part of their existing ones.

There is always a very wide variety of ways in which training in the enterprise with assistance from the National Employment Office is organized; a great deal of flexibility is allowed as to the means to be used for attaining the particular goals of the firms concerned.

- **On-the-job training organized by the Ministry of Agriculture**

Among other training schemes, the Ministry of Agriculture organizes and finances courses on farms, at which people who are already engaged in the agricultural sector and who have completed courses for young people or novices (B courses) can put what they have learned into practice. Such courses have been in existence since 1978; they last for three months and students are paid an allowance which is subsidized out of the budget for paid day-release.

#### *Contents and syllabuses*

It is difficult to describe the syllabus of training schemes carried out in the enterprise. Some of them meet the exact definition of 'on-the-job' training and are limited to informal guidance through tasks which gradually increase in complexity, till finally the apprentice is able to accomplish them on his own. Others, on the contrary, offer a planned series of exercises with assessments of progress inside a regular pedagogical framework.

To give an example, during his four-year apprenticeship, an apprentice-butcher first watches the work, then does more and more complicated jobs until he can carry them out alone in the normal pattern of daily events in the workshop where he has been placed. In a larger enterprise, or when more skills are required, there will be a definite path mapped out, punctuated with 'tests' and ending with an examination which gives recognition to the successive skills acquired.

It is rare for definite syllabuses to exist in basic training programmes. They are, however, found at the advanced level or for refresher course material, and still more in training in the use of a new technique or manufacturing process for already-qualified workers. These tend to be short schemes, carried out in the place of work with very small numbers of trainees.

#### *Course-teachers and trainees*

Inside the enterprise, the trainee is almost always an employee of the enterprise itself, with a contract. It does happen that courses are organized by a business federation or with the assistance of official bodies for workers employed in several firms. For instance, the National Employment Office has financed some training schemes in a particular industry for workers coming from different backgrounds. The law also makes provisions in certain cases for job-seekers to be attached to staff who are already employed. These cases are exceptions however.

When an apprenticeship is organized by the Ministry for Small and Medium-Sized Enterprises, the apprentice is bound to his 'master' with articles differing from a normal employment or work contract. Trainees sent to work in firms by the National Employment Office also have a special set of regulations laid down in their training contracts.

In December 1977,<sup>4</sup> there were 23 435 apprentices throughout the four years of training offered by the Ministry for Small and Medium-Sized Enterprises. The National Employment Office was instrumental in placing 4 722 trainee workers in firms in 1977 and 5 223 in 1978. The number of people being trained in firms themselves, by business federations, or by certain special private bodies is not known.

Concerning course-teachers, most of these are people in the particular trade or craft whose ability has been recognized inside the enterprise (e.g. qualified workers, foremen, engineers, or the specialists delegated by certain builders to give after-sales service).

No particular competence as educators is required of these 'teachers' at the outset apart from the ability to foster good human relations. It is quite common, however, for them to be given some advanced teacher-training when their role in teaching trainees becomes established.

For this reason, the further education centres of the Ministry for Small and Medium-Sized Enterprises organizes advanced-level courses in pedagogy for employers who have one or more apprentices in their charge.

The National Employment Office has set up a National Training and Pedagogical

Studies Centre (CNFEP), one of whose functions is to train those in firms with training responsibilities.

The Ministry of Agriculture organizes special teacher-training programmes for people engaged as educators in its own schemes.

To the various types of course, classes and programmes mentioned must be added the *normal technical classes* offered by the Ministries of Education in the evenings and on Saturdays. Many of the people who teach or guide trainees, not only in vocational and technical schools, but in firms or in the Ministry for Small and Medium-Sized Enterprises or ONEM centres attend these classes on their own initiative and without any financial support in order to obtain further qualifications as teachers.

### **Machinery for combining theoretical academic training and practical work experience in the enterprise**

It has already been stated at the beginning of this report that in Belgium combined programmes, properly speaking, do not exist. In other words, where there is a system of vocational training providing a school situation (teacher, blackboard, desks) together with possibilities for practical and realistic application in a working environment, it is rarely if ever that there is any common strategy for achieving common objectives in the two parts of the programme.

#### *Type and extent of collaboration*

When considering collaboration, we must distinguish between the kind which is structured and governed by sets of rules, and the kind which takes place daily in areas where for a long time permanent contacts between technical and vocational schools and local industry has led to a network of responses in syllabuses to the needs for certain types of training which are felt in practice.

On the institutional level, as has been stated above, there is no organized system for a linked programme of classroom teaching and practical work in certain enterprises. The encounter between the working world and the educational world is a recent one, and it

takes place in *sub-regional employment committees* (of which there are 20 in the country); in these committees, representatives from the unions, employers and the teaching profession meet, to discuss among other things, local vocational training needs.

This encounter can only bear fruit when common interests are manifested in mutual understanding of the individual desires of workers for a more complete socio-cultural training and of exactly what businesses are expecting with respect to their specialized vocational training needs.

On the other hand, in everyday reality, various educational structures have developed specific programmes for certain workers in the regions (part-time study for social advancement) and are even systematically preparing young people to take up jobs in definite firms. Representatives of the latter sit on the examining boards for the examinations at the end of such training using the results as an opportunity for direct recruitment.

More recently, a committee set up by the Ministries of Education including representatives of the Belgian Business Federation (FEB) started to work out framework regulations governing social advancement studies.

When it comes to training in firms organized with the collaboration and under the control of the responsible ministries, the issue is quite a different one, since theoretical training, often very limited, is paid for by the firms themselves, which in some cases ask the Ministries to undertake all or part of this for them. This is the case with the *Ministry for Small and Medium-Sized Enterprises'* training where certain day or evening school diplomas count towards the apprenticeship. The same applies for agriculturalists, where most of the teachers combine their course teaching with a post in the agricultural schools. It is also sometimes the case with the *National Employment Office*, for some of the

programmes which they carry out jointly with certain firms or other teaching structures. Here, an agreement is made which binds the parties for the duration of the training and which defines the contribution to be made by each.

#### *Responsibilities and mutual obligations of teachers and trainees in matters of organization and participation in the two types of training*

The academic part of the programmes falls under the authority of teaching organizers controlled by the Ministries of Education, although this control, in the context of the 'Schools Agreement', is limited three times out of four to the financial aspects of courses (number of teachers, number of classes, grants in proportion to the number of pupils). Those responsible for training (teachers, heads) have a real opportunity of adapting contents and methods to specific objectives. There is not much pupil-participation at this level.

As in the case of general courses, there is still very little interaction between the people who teach and the people who are taught in this domain.

As for the type of training carried out in the enterprise, it has already been explained that this is in the hands of the management of the firms involved. However, trainees are not entirely excluded from the work of defining objectives and methods since they come under the *personnel committees of the enterprise* on which union representatives who can give advice about workers' training have seats. Their opinion can even be the determining factor if the training is dispensed with help from the authorities (for example, the National Employment Office). In the latter case, joint assemblies, sub-regional Committees on Employment, the ONEM's management committee, on which workers' – and hence trainees' – representatives also have seats, are the controlling authority for training and therefore act both upstream and downstream as far as courses are concerned.

## Recent developments and perspectives

In Belgium, the academic world is a relatively closed one. The number of schools, of teachers, of pupils, the size of the budget (more than BFR 200 000 million or one-fifth of the country's budget) have meant that until now, this world has been turned in on itself, with no windows onto the world of work. But the economic crisis, the increase in the number of unemployed among young people who have taken technical or vocational courses, the influx of new generations of teachers with more realistic ideas, the awareness of the educational authorities of vocational requirements, especially as regards the aim of social advancement are so many elements all tending to open up academic circles towards the realities of life or in other words, those of industry. This movement, however, is taking place slowly and can hardly be observed anywhere except where the school has been making efforts for a long while to meet the needs of the enterprise which was often the cause of its existence.

The lack of success of the law on paid day and block-release can probably be explained by the barrier dividing the school from the enterprise. Therefore the measures which the *National Council on Work* is presently proposing to the Government will probably play a large corrective role in the developments not only of results but also of the attitudes of teachers and employers alike. These measures will tend to substitute for the idea of paid day-release that of *educational leave*, extending it to all workers and diversifying goals as far as vocational training is concerned.

It will not be a combination of schooling and work in the sense that the idea is understood in other countries, but the gap between the school and the enterprise should disappear. This will encourage a wider range of responses to the needs both of the individual and of the enterprise in matters of vocational training.

*Pol Debatty*  
Technical adviser (ONEM)

# IRL

In describing systems for the alternation of theoretical and practical training in Ireland, four main areas can be distinguished. These are:

- apprenticeship in the designated trades, and in some of the non-designated trades;
- agricultural apprenticeship;
- professional training;
- third-level education.

Each of these areas is treated in turn in this article and different patterns are found in each area. In apprenticeship the emphasis has been on formal practical training, while the bias in education towards classroom learning is now being changed in at least one institution towards a systematic alternation of work experience and study. Professional training occupies a middle ground, in that it has always included substantial elements of both theory and practice, and it appears that current trends are directed towards formalizing the alternation of the two elements.

## Apprenticeship in the designated trades

Apprenticeship training in Ireland has been historically based on the work-place, and the systematic provision of instruction away from the work-place is a comparatively recent development. Even though the Apprenticeship Acts of 1931 and 1959 and the Vocational Education Act of 1930 recognized gaps in the education of apprentices, the fact that practical responsibility for training remained with the employer often meant that no training was organized outside work. This was satisfactory where the employing organization was large enough to adopt a systematic approach to training, but in the majority of cases, the training given was not adequate for

all the technical requirements of the craftsman's work.

The situation was radically changed by the passing of the 1959 Apprenticeship Act which designated all the trades (listed in Table I) and established training regulations for apprentices in these trades. The 1967 Industrial Training Act empowered AnCO – The Industrial Training Authority – to designate industries (as distinct from trades). The designated industrial activities are engineering, construction, food, drink and tobacco, clothing and footwear, chemicals, printing, textiles.

## Industry – apprenticeship

In the year ending 30 May 1979 the total number of apprentices registered with AnCO was 18 019. The total number of first-year apprentices (on 31 December 1978) was 3 945, and 1 720 of these were spending their first year in training off-the-job.

Of the total number of registered apprentices about 5 000 go on block-release courses each year, while approximately the same number go on day-release courses.

These courses are provided by the Vocational Education Committees in cooperation with AnCO for all apprentices, normally from their first to their fourth years. Construction apprentices do three block-release courses. The courses aim at giving the apprentices theoretical and trade knowledge, some practical training and some general education. The courses generally follow a syllabus geared towards the Department of Education Junior Trade Examination in the second or third years, and the Senior Trade Examination in the fourth year. The duration of a block-release course varies

from 8 to 13 weeks per year depending on the trade, and day-release consists of spending at least one day per week in the classroom for the academic year of 35 weeks. Block-release courses are generally provided only for people from rural areas where there are not enough apprentices to make the provision of a day-release course worth while.

There has always been a problem with securing release, and attendance at courses. For the year to 31 December 1978 there were 17 974 apprentices registered with AnCO. If we allow for the fact that 4 000 of these were in their fifth year and so not normally released for courses, and that some fourth-year apprentices are not required to attend courses, there is a potential course attendance number of approximately 14 000. In fact, only 4 240, or 30% of 14 000 attended block-release courses, and a further 5 347 (38%) attended day-release courses. According to one writer 'it is the opinion of staff in technical institutes that attendance at block-release courses is very good and that absenteeism is due to genuine causes. On day-release, attendance is poorer and has always been so especially on the evening element of programmes'.<sup>1</sup>

The comparatively static nature of the proportions studying in block-release or day-release can be seen from Table 2 where figures are shown for the engineering and metal trades from 1974 to 1978. Even though the total number of apprentices registered in these trades has grown from 3 000 to nearly 4 400 (an increase of nearly 50%), the numbers on block and day-release has only grown from 2 008 to 2 138, or by less than 10%. The training implications of this are balanced out to some extent by a growth in the

<sup>1</sup> McCarthy Thomas, *Apprenticeship in Ireland* (July 1976), page 15.

Table 1: List of the occupations in the trades designated by AnCO

<b>The furniture trade</b>	<b>The engineering trade</b>
Woodfinisher	Fitter
Cabinetmaker	Turner
Woodmachinist	Toolmaker
Upholsterer	Brassfinisher
	Sheetmetal worker
<b>The printing trade</b>	Coppersmith
Compositor	Metal fabricator (includes boilermaker; construction fitter; platter; shipbuilder and blacksmith)
Letterpress printer	Welder
Lithographic printer and platemaker	Patternmaker
Bookbinder/ruler/cutter	Foundry craftsman (includes moulder and coremaker)
Process engraver	Refrigeration craftsman
Stereotyper and electrotyper	Aircraft mechanic
Photolithography craftsman and photogravure craftsman	Instrument mechanic
<b>The trade of electrician</b>	<b>The construction trade</b>
Electrician (includes installations electrician, industrial maintenance electrician; ESB electrician; rewinding electrician; neon sign electrician; lift electrician)	Carpenter joiner
	Slater and rooftiler
<b>The trade of motor mechanic</b>	Brick and stonelayer
Motor mechanic	Glazier
Agricultural mechanic	Painter and decorator
	Plasterer
	Stonecutter
	Plumber
	Plant fitter
	<b>The trade of dental craftsman</b>
	Dental mechanic

proportion of first-year apprentices being trained off-the-job from 26 % to 55 %. Most of the 500-plus engineering apprentices being trained in this way are based in AnCO training centres, and their one-year course includes at least one day a week of theoretical instruction given in separate vocational education centres. A sample syllabus for this instruction is shown in Table 3, while a sample fourth-year block-release syllabus is shown in Table 4.

As far as cost is concerned, the employer pays the apprentice his/her wages and bears the costs of training within the company. However, the employer receives the benefit of the apprentice's production and may recoup some of the costs from the AnCO levy/grant scheme. The State pays for off-the-job apprentice training courses except where the apprentice is sponsored by the employer, and also for block and day-release classes. State support includes transport and accommodation allowances (where the apprentice is not attending from home)

and general administrative costs and training costs

The relationship between the training and education of apprentices has been the subject of much debate in recent years. The Council of AnCO has stated that, 'While there are other important objectives such as broad-based training (to facilitate mobility) and general education to be considered, the main objective of apprenticeship is to train a young person to perform effectively the functions of a skilled craftsman'.<sup>1</sup> An earlier discussion document written by AnCO staff had stated that, 'Apprenticeship is more than learning a practical skill; there is also theoretical knowledge to be absorbed. Apart from this, AnCO believes that training should be used to help the individual to develop personally and that a certain educational input would be of considerable value to apprentices'.<sup>2</sup>

'It seems that employers and apprentices alike are becoming increasingly critical of the shortcomings of the present system.

Problems have arisen in trying to relate what is being taught in the schools to the practical work which is being done on-the-job. As the employer is paying the apprentice his wages during the course, he is concerned with the costs involved, which can be considerable, particularly with third and fourth-year apprentices. He is often concerned to ensure that the costs are matched by benefits, particularly since production schedules can be disrupted while apprentices are away. Furthermore, since school syllabuses are geared towards examinations, which are not necessary to acquire craft status, the apprentice may regard them as irrelevant.'<sup>2</sup>

As a result of all this, AnCO is finding it increasingly difficult to get employers to release their apprentices to attend vocational school courses. Many apprentices are critical of the fact that the classroom work does not seem to be related to their jobs. Consequently, their work does not benefit from the courses and this in turn affects the employers' willingness to release them.<sup>1</sup>

The practical working out of these different emphases is still proceeding. Recognizing the problems concerned and the varying views expressed by apprentices, employers and educators, the Council of AnCO decided in 1975 to set up a curriculum advisory committee made up of employer, trade union, educational and training interests. This committee is working on outline syllabuses of training and education, and has been charged with approving detailed curricula in respect of each craft.

A study of the general education needs of craft apprentices has been carried out by the Research and Planning Division of AnCO, and the results have been taken into account by the committee in designing a syllabus of complementary studies for apprentices.

The education and training needs of apprentices employed in non-designated trades are, in general, less well looked after. Perhaps the best organized of these trades is the trade of baker/confectioner, where up to 50 young people enter the trade each year. Formal training involv-

<sup>1</sup> *The New Apprenticeship - Decisions of the Council of AnCO - October 1975.*

<sup>2</sup> AnCO, *Apprenticeship, a new approach*, discussion document (1973) page 16.



Table 2: The engineering and metal trades

1 Year	2 Registered apprentices	3 Block release	4 Day release	5 First year registered	6 First year off-the-job
1978	4 381	1 307	831	982	541
1977	4 032	1 441	761	824	388
1976	3 612	1 365	756	585	357
1975	3 348	1 303	747	459	324
1974	3 012	1 262	746	559	146

ing one full day and two evenings per week is provided in Dublin, but these are accessible only to those living and working in the Dublin area. In recent years, day-release schemes have been organized for apprentices in three major centres outside Dublin (Shannon, Galway and Cork), but there have been no developments in the provision of block-release: in consequence, apprentices who work outside these areas have no training other than that given 'on-the-job'. This is generally true of the non-designated trades, with the exception of hairdressing and panel-beating where short, intensive courses for young people entering the trade are provided in AnCO training centres. It is also true of farriers, apprentice jockeys, RTV servicing, sewing machine mechanics, and office machine servicing.

## Apprenticeship in agriculture

Agriculture is another area where there is a strong emphasis on alternating study with practical experience. The Irish Farm Apprenticeship Board runs a Farm Apprenticeship Scheme. The Board is a private limited liability company, recognized by the Government which uses its facilities for sponsoring courses and classes. The Government contributes an annual grant-in-aid to the Board (IRL 46 000 for 1979), and the Board is also obliged to raise funds from other non-State sources. The scheme caters for approximately 280 apprentices and has a field supervision

### *The scheme*

The aim of the Farm Apprenticeship Scheme is to give practical and theoretical training in farming to young people

(normally between 16 and 21 years) with the object of enabling them to put this training into practice either in farming or in allied agricultural pursuits.

The apprenticeship lasts for four years during which time the apprentice normally works on at least two farms. In cases where it is evident that one farm can provide a sufficiently wide range of enterprises and experiences, the Farm Apprenticeship Board may allow the apprentices to stay on that one farm.

An apprentice is not permitted to serve an apprenticeship on his own home farm. During the whole term of apprenticeship supervision is provided by the Board.

### *Courses*

Each year a special course in farm management is provided. The course covers such subjects as farm accounts and other aspects of farming, and is provided by the Department of Agriculture. The master farmer must release the apprentice during the course, although he is not obliged to pay wages to the apprentice while he attends the course. Scholarships to cover approved travelling expenses and fees for courses are provided by the Government.

At the conclusion of apprenticeship, apprentices undergo written, oral and practical tests in order to obtain the First Farm Management Certificate. They may however continue to register for higher certificates.

### *Wages and conditions*

During the apprenticeship period, the apprentice is paid at rates laid down by the Agricultural Wages Act. Hours of work, time off, and holidays are similarly

governed. Apprentices are regarded as workers and insured accordingly.

### *The master farmer*

The Board is responsible for compiling a list of competent master farmers who are willing to train apprentices. The master farmer has to be a good farmer who is farming at a high level of technical and economic efficiency. The Board stresses that the apprentice's relationship with the farmer with whom he/she is engaged should be, as far as possible, a relationship of teacher and pupil rather than master and servant. The master farmer must provide adequate study facilities and is responsible for encouraging the apprentice to study.

### *University degree courses in agriculture*

Apart from the Farm Apprenticeship Scheme, university degree courses are also provided in agriculture. Normally young people would begin such courses at 18 years of age on completion of their secondary schooling. The course lasts for four academic years. In order to gain the requisite knowledge in practical agriculture a student may be obliged to spend one year at a recognized Agricultural College or on an approved farm. The same provision applies to horticulture and forestry.

## The professions

The notion of alternating theory and practical experience has always been an important one for the professions. Long periods of study combined with practical experience are required for accountancy, medicine, the para-medical fields of radiographer, physiotherapist, and nursing, all levels of teaching, social work,

**Table 3: Day release**

*Daily timetable for engineering apprentices – all years*

(The course runs from September to mid-July for approximately 30 weeks)

Subject	Time spent per week (hours)
Maths	1
Engineering science	1
Workshop practice	1½
<i>Lunch</i>	
Workshop theory	1
Technical drawing	1
English and general studies	1½
<b>Total</b>	<b>7 hours per week</b>

librarianship, engineering, law. All of these areas require study at third level, often at university alternated or followed by work experience. One profession is taken here as an example of the structures which apply.

*The lawyer*

The course of study and practical experience necessary to qualify one as a soli-

citor (lawyer) in Ireland is particularly interesting because it is new, and because it lays much greater emphasis than before on practical experience. Apart from the Cooperative Education Programme run by the National Institute for Higher Education in Limerick, the new course for qualifying as a solicitor is probably the best example of carefully planned alternance in Ireland, with its clearly set out periods of study followed by periods spent working in the master's office.

**Table 4: Block release**

*The weekly timetable for fourth year engineering apprentices*

(The course lasts for 11 weeks, up to 35 hours per week)

Day	Subject	Time spent (hours)
1	Technical drawing	2
	Maths	2
	Liberal studies	1
	Engineering science	1
	Maths	1
2	Workshop theory	2
	Technical drawing	2
	Engineering science	2
	Religious knowledge	1
3	Workshop practice	6
	Workshop theory	1
4	Religious knowledge	1
	Workshop theory	2
	Maths	1
	Liberal studies	1
	Engineering science	2
5	Maths	1
	Workshop practice	6

Before becoming apprenticed to a master solicitor the intending apprentice must hold a third-level degree, preferably in law, so that a first-year apprentice would normally be about 21 years of age. The new apprentice first spends a brief familiarization period in his/her master's office lasting from three to six-months, followed by a six-month general-practice course at the Dublin Law School. This intensive theoretical course is followed by 18 months spent in the master's office, where the apprentice works full time learning the skills and practice of the profession. The final phase consists of an advanced course in the Law School which runs for approximately ten weeks near the end of the term of apprenticeship. The regulation of costs and wages, if any, is a private matter between the apprentice and his/her master.

**Cooperative education**

The newest and most dynamic example of alternating study and practical experience in Ireland is the Cooperative Education Programme offered by the National Institute for Higher Education in Limerick (NIHEL). The Institute was established in 1972 to meet the increased demand for third-level education, particularly in the Mid-West Region. The rapid expansion of the Irish economy, its transition from an agricultural to an industrial base and EEC membership had a number of repercussions: on the one hand many career opportunities were created; on the other hand gaps in our existing educational structures were identified. The creation of NIHEL represented, in effect, the first step towards a technological university geared to these needs.

The NIHEL set out to bridge the gap between the arts and the sciences in order to provide the educated technologist of tomorrow – a new kind of graduate who has applied classroom theory and laboratory practice to off-campus work experience (cooperative education) in industry, business, agriculture, the public services and the professions.

The Institute's commitment to meeting its challenges is reflected in three ways:

- through the recruitment of staff who have a balanced combination of academic achievement and practical knowledge;
- through teaching methods which stress the practical application of theoretical knowledge;

**Table 5: European studies syllabus – NIHE Limerick**  
**Bachelor's degree in European studies – public organization option**

*Programme outline*

Michaelmas	Hilary	Trinity
<b>Year 1</b>		
Language	Language	Language
Introduction to Europe 1	Introduction to Europe 2	The European Community
Social law	Social law 2	EEC law 2
Sociology – concepts and perspective	European peasant society	European industrial society
Economic law 1	Economics 2	Microeconomics
	Rudiments of anthropology	Irish society: an anthropological perspective
<b>Year 2</b>		
Language		
Europe 1870	Cooperative education	Cooperative education
The government and politics of Ireland		
Social research methods		
Macroeconomics		
Language in Ireland and Europe		
<b>Year 3</b>		
Language	Language	Language
Europe 1900–1930	Europe 1930–1945	Europe since 1945
Comparative politics	Comparative European government and politics	Issues in contemporary European politics
Constitutional law	Administrative law	Project
Government and public administration	Industry, urbanization and bureaucracy	Irish economic environment
<b>Year 4</b>		
Cooperative education	Language	Language
	Project	Public sector economics 2
	Public sector economics 1	Local government law
	International relations	History of European social policy since 1800
	EEC economic environment	

- through the provision of a comprehensive and sophisticated complex of laboratories and equipment.

*Courses*

'Interdisciplinarity' is an important concept at the NIHEL. The students' programme of study is composed of a

number of carefully selected modules, drawn from a variety of appropriate disciplines. As a result, conventional barriers between disciplines tend to be reduced.

The NIHEL offers a total of 24 programmes in the following interdisciplines:

- Business administration,

- Applied mathematical science,
- Electrical engineering,
- Materials and product engineering,
- European studies.

The syllabus for the last of these programmes is given in Table 5.

Today (July 1979) there are over 1 600 registered students at the College, and

there has been a rapid growth in the number of these participating in the Cooperative Education Programme, as shown in Table 4.

#### *Cooperative Education Programme*

Since its inception the Institute has been committed to a healthy working relationship with industry, commerce, the public service, and the professions. It fulfils that obligation primarily through its Cooperative Education Programme which is unique in the Republic of Ireland. Cooperative education, integrates classroom theory and laboratory practice with 'the real world of work', by placing the student in employment relevant to his or her academic interests. The system was first introduced in the United States in 1906, and is now established in over 1 000 universities and colleges. The British system of 'sandwich' course operates in a similar way.

Students at NIHEL spend four years studying for a degree. The Cooperative Education Programme is divided into two periods of six months, the first period being spent during year 2 and the second at the beginning of year 4.

#### *Cooperative employers*

At present there are over 200 employer organizations participating in the programmes. Where possible, work assignments are expected to be part of a training activity, recognized as appropriate parts of a professional development programme. In some cases, they must be projects designed to use the skills of the student in supporting the employers development programmes. Student employees receive wages appropriate to their job responsibility. They are of course paid by the employing enterprise and carry out planned assignments acceptable to NIHEL. They are generally regarded as ordinary employees of an organization, integrated into the organization and subject to typical employment conditions. On returning to the Institute, the student submits a full report on his/her job assignment for the award of credits. Most work assignments

**Table 6: Student participants in the Cooperative Education Programme**

Year	Number
1975	172
1976	197
1977	254
1978	313
1979	330
1980	500

are located in Ireland but when appropriate, some students are placed overseas.

The Cooperative Education Programme has been a major success from everyone's point of view, but the student undoubtedly gains most. The student gains a year's practical experience before graduating; sees the importance of meeting deadlines; loses unrealistic expectations; sees the relevance of academic work and thus is able to return to it with increased motivation. His/her choice of career is made earlier and more realistically after experience in cooperative education.

The programme is carefully administered and monitored by the Cooperative Education Committee and the Director of Cooperative Education. Each student is assigned to a member of staff in the student's interdiscipline who acts as a coordinator. The coordinator interviews and counsels students, establishes potential work assignments and liaises with employer representatives.

### **Other training schemes**

In addition to the formally organized schemes providing alternation of instruction and experience described above, there are a number of other ways in which a young person may combine training and experience of work. For example, AnCO trainees are often placed with employing organizations as part of their programme, particularly in the clerical skills area. Similarly, the Hotel and Catering Training Authority (CERT)

arranges for trainee chefs and hotel managers to gain relevant experience abroad. From a different stand-point the work experience programme of the Department of Labour is designed to give unemployed young persons practical knowledge of working life. A programme lasts six months, with at least four days a week spent with an employer, during which the participating young person is paid an allowance of IRL 20 per week. A total of 2 734 young people had participated in the scheme during the 18 months up to March 1979. A target of 6 000 placements has been set for 1979.

### **Conclusion**

There is considerable variation in the type and extent of alternation between theoretical and practical training in Ireland. The most widely organized scheme is that for the training of apprentices in the designated trades, since the courses for these are provided on a country-wide basis. Professional training, on the other hand, is centralized in the major cities especially in view of its links with the universities and other third-level institutions. NIHE Limerick has been a unique development, but will shortly be followed by NIHE Dublin which will accept students in 1980. The overall tendency is for work-based and education-based training systems to move towards each other and to become more formalized.

The recent Government White Paper on National Development recognized that special arrangements to promote youth employment are needed, and the Minister for Labour has been assigned responsibility for the coordination of these schemes. It is intended that all Government-sponsored youth employment and work experience schemes will have a training element to reduce the number of young people entering jobs with low skill requirements. This commitment will undoubtedly require the further development of alternation between training and work.

*Bernadette O'Sullivan*  
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# UK

Source: Department of Education and Science – Manpower Services Commission

The Council Resolution of 18 December 1979 defines 'alternance' as 'the inclusion, during the period of transition to working life, of periods combining training and practical work experience'; and it goes on to identify three kinds of situation to which it is especially appropriate: young persons undergoing apprenticeships or post-educational training courses; young job-seekers eligible for special training measures to facilitate their integration into the labour market; and young workers without adequate vocational training.

The United Kingdom, within the spectrum of its arrangements for vocational education and training, has various forms of provision which meet the definition of alternance and, particularly, the three special categories identified in it. The following sections of the paper attempt to set the scene within which these forms of provisions are found.

In addition, mention should be made of the increasing attention being given in the final years of compulsory schooling to preparing young people for the transition to working life. Although schools do not engage in training for specific occupations, vocational preparation involving some elements of work experience arranged by schools in collaboration with their local industries are becoming increasingly common.

## The training framework in the United Kingdom

Successive governments have endorsed the view (which is shared by most of industry) that the principal responsibility for training lies with employers and their industries. Consequently the role of the government has largely been to promote adequate training by creating an

Economic climate and, in certain ways, a legal framework which encourage employers to analyse and meet their own training needs.

The 1964 Industrial Training Act was introduced to help promote training in industry. The Act provides for the establishment of Industry Training Boards (ITBs) (see below). It was amended by the 1973 Employment and Training Act under which day-to-day responsibility for training and related matters passed to the Manpower Services Commission (MSC). In 1979, the Manpower Services Commission instituted a review of the working of this Act insofar as it related to arrangements for the promotion of training for employment. This review was expected to be complete by summer 1980.

### *Manpower Services Commission*

The Commission, which was set up on 1 January 1974, has a Chairman and nine other members nominated by the Trades Union Congress, the Confederation of British Industry and the education sector. The MSC aims to:

- contribute to efforts to raise employment and reduce unemployment;
- assist manpower resources to be developed and contribute fully to economic well-being;
- help secure for each worker the opportunities and services he or she needs in order to lead a satisfying working life;
- improve the quality of decisions affecting manpower.

The MSC also carries out research into the development of training in order to promote good training practice.

### *Industrial Training Boards (ITBs)*

There are 24 ITBs, their activities covering about half the United Kingdom's

working population. The MSC meets their operational costs as well as providing finance for key training grants. The ITBs, which are responsible for encouraging adequate training in their industries, have a major role in helping companies to develop relevant manpower plans, to raise the competence of managers and supervisors, and in encouraging innovation and successful response to technological and other changes. ITBs operate levy schemes for their industries and they are generally required to exempt from levy those companies whose training is considered to meet adequately their particular needs. Levy funds are paid back to the industry as grants for specific training activities.

### *Industry and commerce outside the scope of ITBs*

Strong links are also maintained between the MSC and bodies outside the ITB sector. These include nationalized industries (for example, the National Coal Board and British Rail), public utilities (for example, the Water Supply Industry) and the commercial sector (for example, banking and the financial institutions). The MSC gives financial help where needed to encourage training in such industries.

### *The Training for Skills Programme*

The MSC adopted a report 'Training for skills: A programme for action' in December 1977. The programme's aim is to achieve long-term improvements in the amount and quality of training, in order to ensure that economic expansion is not affected by manpower shortages and also to create more opportunities for individuals to acquire, improve and up-date their skills. ITBs and other training

organizations have been asked to assess future manpower needs realistically and, in particular, to take action to prevent serious skill imbalances from developing.

## Role of further education in training

Further education in the UK is that part of the publicly maintained educational system outside the universities which provides for students no longer in schools, from the minimum school-leaving age of 16 onwards. While overall responsibility rests with the Secretary of State for Education and Science,<sup>1</sup> further education, like schools, is administered on the basis of a partnership between central and local government, with Local Education Authorities (LEAs) charged by the Education Act 1944 (the 'Butler Act') to secure provision of adequate facilities for their areas. There are 105 LEAs in England and Wales, comprising the Inner London Education Authority (ILEA), the 20 outer London Boroughs, 48 non-metropolitan counties and 36 metropolitan districts. Ten Regional Advisory Councils have responsibility for co-ordinating further education provision. So far as educational provision for 16-19 year-olds is concerned, the position is currently being reviewed by a committee chaired by a government minister and including representatives of the local authority associations.

The range of further education establishments is very wide. Apart from 30 polytechnics, which specialize in advanced work, it includes colleges of further education, colleges of technology, technical colleges, colleges of commerce, colleges of art, and agricultural colleges. There are also colleges and institutes of higher education formed by amalgamations of colleges of education – responsible for the training of teachers – with further education colleges. The objectives of these institutions vary greatly, as do the ages and academic attainments of their students. Many of them offer facilities for 'sandwich courses' with periods of full-time study alternating with periods of full-time study alternating with periods of full-time practical experience and training in industry and for part-time attendance, which may be one day a week, full-time for short periods or evening only.

A particular feature of the further education service is its strong links with industry and commerce and the interest shown in it by employers. To some extent the

courses available in an area depend on the nature of local industry and commerce, and in many cases representatives of employers are involved in the design of courses. Guidance is given by central government to LEAs that governing bodies should consist largely of people with current experience of industry, commerce and other fields relevant to the work of a college, and that while members of the LEA itself who are appointed to a governing body can be expected to be chosen with these considerations in mind, there should also be substantial provision for governors drawn from employers, trade unions and those concerned with training at a senior level in industry and commerce. It is suggested that direct representation of industry and commerce should normally account for about a third of the membership of a governing body. Many teachers in further education colleges will, moreover, have had industrial or commercial experience.

Although the boundaries are sometimes indistinct, the further education system sees its role as being to promote personal development in broad terms as well as to impart specific knowledge and skills. Apart from a need in some cases to improve skills in literacy and numeracy, there is a role in achieving higher standards of communication, both written and oral, and in increasing a student's understanding of his economic and social environment. This may be easier for the education service to undertake once a young person has the motivation that derives from being employed. There is also knowledge appropriate to jobs within broad occupational fields which it is more appropriate for further education colleges to transmit than it is for the training agencies and those concerned with training within companies. Scope has therefore existed for the development of part-time vocational courses which supplement the training which those in the target age group receive in other ways. The Industrial Training Act 1964 gave an impetus to the development of integrated courses of training and further education, and the Employment and Training Act 1973 by establishing the Manpower Services Commission provided new opportunities for developing further the links that had grown up between the education and training services.

Although most training of young people who have left full-time secondary education is undertaken by employers on-the-

job, it is commonly accompanied by day or block-release to a college of further education. Such release is normally a voluntary arrangement between the employer and employee: there is no legal obligation for an employer to release trainees, nor on trainees to undertake further education. Nevertheless day or block-release has in recent years increasingly been made available to young people in employment; and whilst it used to be largely confined to formal apprenticeships, it now forms part – often an essential part – of many forms of traineeship.

That said, it is still the case that the majority of young people using day or 'block' release facilities at further education colleges are apprentices. Recommendations on their training are formulated by Industrial Training Boards, on which educationalists are represented. It normally includes a substantial period of off-the-job training in the first year, with a broadly based curriculum.

Most apprenticeships are concerned with craft skills, for which they are the main form of preparation. The content of craft courses usually falls under such headings as craft theory, practical activities, associated subjects such as drawing and applied mathematics, industrial studies and general studies. The vocational education element is normally tested by examinations devised and set by the City and Guilds of London Institute (CGLI) or by regional examining bodies which are now establishing federal links with the CGLI.

Further education colleges cater also for apprentices following schemes for technical level occupations. These involve systematic training coupled with related technical education aimed at a specific educational qualifications at an appropriate level. The courses include those leading to Ordinary National Diplomas and Certificates and Higher National Diplomas and Certificates, these qualifications being awarded by joint committees consisting of representatives of government, teachers' organizations and the appropriate professional bodies. They, together with certain awards of the CGLI, are now being replaced by awards of the Technician Education Council.

<sup>1</sup> This is so in England. Responsibility in Wales, Scotland and Northern Ireland rests with the Secretaries of State for those countries. What follows relates primarily to England and Wales and may not necessarily apply in detail to Scotland and Northern Ireland.

The Business Education Council is carrying out a similar rationalization of business courses at all levels below degree level (see below).

Courses are also provided which permit employment-linked training of other kinds. These may again take the form of apprenticeship training, with 'student apprentices' preparing, usually on a sandwich basis for qualifications at or about university level or for membership of professional institutions. Graduate apprentices follow similar courses with the aim of enabling trainees with graduate level educational qualifications to become competent in their particular field and so qualify for membership of the appropriate professional institution. Other trainees, not formally apprentices, may also follow block-release courses at further education colleges, leading for example to membership of professional accountancy bodies.

At sub-craft levels, further education colleges provide certain courses for operatives. These may lead to qualification awarded either by external bodies or by individual colleges themselves. But many school-leavers enter jobs which offer little or no systematic education and training. Although employers may regard an absence of specific skill requirements as indicating little or no need for training, employees can be helped to be more successful in their jobs and given the adaptability they will need as employment opportunities change. Further education colleges have accordingly played an important part in the experimental programme of unified vocational preparation and in the short training courses arranged for the young unemployed under the Youth Opportunities Programme (see below).

For money which they spend on education LEAs receive support from central government which in 1980/81 will average about 61% of their net approved expenditure. This support is channelled through Rate Support Grant (RSG) in a manner intended to reflect equitably the variety of local needs and resources. The grant is a payment in aid of each authority's spending as a whole, and no part of it is specifically earmarked for education or any other service. The balance of local authority spending is met from the rates (local property taxes).

Some part of expenditure on further education is recovered from fees. But those for vocational education are nor-

mally set below cost, and are frequently waived for students under the age of 18. However, the element attributable to skill training is charged to the employer at full economic cost.

Young persons following courses at further education colleges which are linked to training in employment will normally be financially dependent on their employer. However, LEAs have discretionary powers to pay grants to students in part-time further education as well as to full-time students over 16 in further education and schools, the rates and conditions of such grants being determined locally. Young people engaged on schemes under the Youth Opportunities Programme (see below) receive a tax-free allowance from the Manpower Services Commission.

In providing courses for employment-linked training and for the young unemployed the further education system acts as a contractor operating on behalf of employers, Industrial Training Boards and the Manpower Services Commission. Their position as customers enables them to set objectives for the educational component of courses. Colleges, however, expect an opportunity to be consulted on these objectives and to have considerable freedom to settle the content of what they provide, with an ability to determine teaching patterns and style. Cooperation at all levels between the interests involved is essential for effective working, and is reinforced by representation of industry and commerce on college governing bodies and of educationists on training bodies such as Industrial Training Boards. The Training and Further Education Consultative Group provides a forum for discussion at national level, while special machinery exists for co-ordination of particular programmes.

## **Linked work and training in the United Kingdom**

### *Apprenticeships or post-educational training*

Reference has already been made to the role of day or block release in linking work and training in apprenticeship, which remains the traditional means of preparation for skilled craftsmen, particularly in the engineering, construction and printing trades. The majority of apprenticeships are taken up by 16

and 17-year-old school-leavers on first employment. Apprenticeships involve a formal training period which may range from three to seven years – the average now being about four years. Most such schemes are administered nationally by joint bodies established by collective agreement between employers' associations and trade unions. In addition to craft apprenticeships there are also technician, students and graduate apprenticeships (see paras 17 and 18).

But many key skills are gained through training programmes which are not given the title of apprenticeships. For example, skills in some new areas such as computer software tend to be acquired through a series of training modules which give greater flexibility to respond to needs arising from rapid technological change. More emphasis is placed on the attainment of a standard of training rather than on the serving of a fixed training period. In practice, length of training is generally shorter than that required under an apprenticeship and takes account of the trainee's ability to learn. Day or block release to colleges of further education leads in most cases to nationally recognized qualifications such as those of the City and Guilds of London Institute of the appropriate professional institution – for example, the Royal College of Nursing. In some cases courses are directed to general educational qualifications – particularly, the General Certificate of Education.

An avenue of growing importance is that of technical education and training, which may be pursued by part-time or full-time studies. The system of technician education is in the process of change. The Technician Education Council (TEC) was established in 1973 with a view to providing a system of further education which would meet the requirements of technicians in industry. To this end, it is establishing nationally recognized educational qualifications which will equip technicians better for their work. TEC committees consist of representatives of further education, industry and government.

A parallel body, the Business Education Council (BEC) was set up in 1974 to establish a unified national system of non-degree courses for occupations in business and public administration. Both these bodies have important roles in developing the concept of linked work and training.

## *Special programmes for the young unemployed*

### **Youth Opportunities Programme**

Through the Youth Opportunities Programme (YOP) the MSC aims to improve young people's prospects of finding satisfactory employment. The Government has undertaken:

- that no young person aged under 19 who left school in 1979 and was still unemployed by Easter of 1980 should be without the offer of a suitable place on the programme;
- that from Easter 1980, no young person under 19 becoming unemployed for 12 months should be without such an offer.

In YOP's first year of operation a similar undertaking was extended to 1978 school-leavers and was 99 % fulfilled.

The framework of YOP provision is flexible, offering a wide range of schemes and courses of varying length. Young people are encouraged to progress through the different types of opportunity available, where appropriate, and may normally remain in the programme for up to 12 months. The average stay is five to six months. YOP participants receive a standard rate of allowance and travel expenses.

Considerable emphasis is being given to the development of off-the-job learning opportunities as an integral part of the programme. Examples of opportunities available under the programme include employment induction courses which improve young people's knowledge of the world of work and improve their basic skills, and short industrial courses which provide training for a specific though broad, occupational area up to operator or semi-skilled level.

In addition the programme provides work experience courses on employers' premises and as project-based work for the community. Training workshops give first hand experience of different kinds of work in a group producing goods or service and the community service scheme provides experience of different kinds of community work. An increasing proportion of YOP schemes provide for day-release.

In 1978/79 YOP helped more than 162 000 young people and in 1979/80 it is expected to cater for over 100 000 young people at an estimated gross cost

of UKL 134 million. The monthly peak of places in the programme to date was 105 000 at the end of October 1979. At the end of December there were 89 000 young people undertaking YOP. About equal numbers of boys and girls have been helped by YOP whilst about half of YOP participants have no educational qualifications (as against about 20 % of all school-leavers). For 1980/81 the target has been raised to between 250 000 and 260 000 entrants.

### **Community Industry Scheme**

The Community Industry Scheme aims to help socially and personally disadvantaged young people prepare for permanent employment through undertaking practical, worthwhile work in the community. They work as members of project teams in workshops and in various social services. In December 1979 there were 6 300 young people employed by community industry in its 53 local units.

### **Special Temporary Employment Programme**

The Special Temporary Employment Programme aims to provide temporary jobs for unemployed adults aged 19 and over. Priority is given to people aged 19–24 who have been continuously unemployed for more than six months and those aged 25 or over who have been continuously unemployed for over 12 months. Participants are employed by sponsors, normally for a maximum of 52 weeks on projects of benefit to the community which would not otherwise be undertaken.

### **Training Opportunities Scheme**

The Training Opportunities Scheme (TOPS) provides suitable training opportunities for unemployed adults, a substantial proportion of whom are under 25. Specialist vocational courses are available at the MSC's own skill centres or at colleges of further education and employers' establishments. About 80 000 adults are trained each year under TOPS including 2 000 technicians and nearly 5 000 professional and managerial staff. The two largest groups are clerical/secretarial and skilled manual trades. The MSC's Training Services Division which administers TOPS is currently developing programmes to introduce an on-the-job

element into its semi-skilled training courses and has developed a range of wider opportunities and work appreciation courses which are currently being evaluated.

### *Vocational preparation for young workers without adequate vocational training*

In July 1976 the Government issued a booklet entitled 'Unified vocational preparation: a pilot approach'. It reflected their concern to expand learning opportunities for 16–18-year-olds in employment and proposed a programme of experimental schemes of vocational preparation designed specifically for those young people who leave school and enter jobs where they receive little or no systematic further education or training.

The unified vocational preparation (UVP) schemes embody two basic themes: first, that the education and training services are jointly responsible for planning and providing educational preparation so that its education and training elements are inseparably combined; and secondly, that the provision is focussed on the working situation and is seen by employers and the young people concerned as relevant to their needs.

Central to the concept of UVP is the conviction that young people should be given a fair start in working life. With this in mind the pilot programme was launched to assist young people:

- to assess their potential and think realistically about jobs and careers;
- to develop the basic skills which will be needed in adult life generally;
- to understand their society and how it works;
- to strengthen the foundation of skill and knowledge on which further training and education can be built.

The programme of pilot schemes began in 1976 and will last until the summer of 1981. It is organized and financed jointly by the Manpower Services Commission and the Education Departments. It is estimated that at the end of the programme about 820 schemes will have been run, attended by about 9 000 young people. Most of the schemes are organized by colleges of further education or Industry Training Boards, and they cover a wide variety of occupations. While attending the schemes the young people continue to receive their normal wages, and their employers are paid a daily allowance. The Government also pays



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incurred by the college or other scheme organizers.

In April 1979 the previous Government issued a consultative document, 'A better start in working life', which outlined proposals for an expanded system of vocational preparation. It reaffirmed the need to provide more help for young people who receive no further education

and training when they begin work, and suggested the development of traineeships which would provide vocational preparation in an integrated programme of education and training both on and off the job, combining elements of induction, basic job skills and knowledge, and social and life skills. After the General Election of May 1979, the new Conservative administration decided that the

consultation process started by its predecessors should continue. The consultation period ended on 31 December 1979 and all the Government departments concerned are now considering the comments received and the possibilities for extending vocational preparation for young people. A decision by the Government on this form of linked work and training is expected later this year.

# NL

On 18 December 1979, the Council of the European Communities adopted a resolution on the encouragement of linked work and training, and it is felt that some consideration should now be given to the situation in the Netherlands with regard to this form of training.

The discussion of the situation in the Netherlands is preceded by a general description of the contents and scope of the Council resolution by way of introduction, although it will not, of course, be possible to cover every aspect in so short a document. The situation in the Netherlands is then discussed by reference to a number of basic features.

## The general content and concept of linked work and training

According to the resolution, the term 'linked work and training' means a combination of practical and theoretical vocational training.

Such training comprises not only a combination of theory and practice but above all a link between working and learning. This approach is of importance for the transition from school to working life, particularly with regard to those whose position in the labour market is weak. Reference is made to young job-seekers in need of special training and to young workers who have not had suitable vocational training. In more general terms, alternance is important for young people in apprenticeships or undergoing training after completing their school education.

These, then, are very generally the principal features of the resolution.

To summarize, this form of training comprises:

- a link between working and learning;
- a combination of theory and practice;
- involvement of groups with poor future prospects.

It should also be added that, as far as possible, this form of training must be coordinated with existing full-time training courses.

## The situation in the Netherlands

### General

The many features of the Dutch education system undoubtedly include a relatively pronounced orientation towards future occupations. This is particularly true of the second stage of secondary education.

The link between working and learning and the combination of theory and practice are to be found in many different forms of education. Thus Annex 2 of the Government memorandum entitled Practical Training, which appeared in 1977, lists no fewer than 17 types of schools in which in-school learning is combined with periods of practical training (sometimes coordinated, sometimes not). The total duration of each of these periods varies from 4 to 40 weeks.

The above concerns full-time education. The link between working and learning is also much in evidence in part-time education.

The secondary education development plan (Annex 10 to the 1980 national budget) makes a general distinction between three types of intermediate vocational education, namely:

- education coupled with practical training during an apprenticeship;
- education of relevance to a given occupation;
- education of no particular relevance to a given occupation.

This distinction reveals the similarity between part-time education and the concept of linked work and training described in the resolution, particularly where the first two types are concerned.

It is perhaps interesting to note that the above division largely corresponds to distinctions made elsewhere to illustrate the concept of linked work and training.

The above explains a number of general features with the aid of various examples taken from the training sector in the Netherlands. In the following the training sector itself is discussed. A comprehensive analysis cannot be given in so short an article. I have therefore confined myself to two forms of training which have distinct features of linked work and training.

These forms of training are the apprenticeship and the new/continuing vocational education, which is an alternative to the apprenticeship and closely allied with it.

### Apprenticeships

The training courses forming part of an apprenticeship have all the basic features described above in connection with the concept of linked work and training.

Provision is made in the Apprenticeship Act for the link between learning and working and it has been fully effective since 1968, the year in which the Act entered into force. Young people usually

attend a vocational school one day a week for general and vocationally-oriented education. On the other days of the week they receive their training on the job.

It should also be pointed out that apprentices are also employees. They receive most of their training at the workplace itself. As employees, they also receive the wages specified in collective agreements.

Considerable attention is also paid to the combination of theory and practice. It is perhaps worth noting how this combination is achieved and what guarantees are involved. For this purpose, a distinction is made between the general level of organization of training courses and the specific level of implementation.

The organization of all training courses is the responsibility of the national apprenticeship boards. Together with the schools, they draw up general programmes, which include programmes for practical training and guidelines for the (school) curriculum. Both areas are covered in examinations.

During the training course, the school is responsible for ensuring the link between theory and practice. The didactic method chosen for this is known as practical training (*praktikum*), which should combine theory and practice.

The link between practice and theory is also assured by the representation of both industry and education on the official committees whose responsibility it is to establish the abovementioned programmes and examination requirements.

Despite this, the link between practice and theory during training still leaves something to be desired. Cooperation between schools and firms is often unsatisfactory. Various projects are now being implemented to improve this situation.

These projects include the division of the curriculum into teaching blocks involving the closest possible coordination of the school syllabus and practical work. On-the-job instructors, advisers and teachers cooperate as far as possible to this end.

Examples of such projects are the review of training courses and examinations (HOE project) being carried out by the Building Trades Training Foundation

and a comparable project under the auspices of the Bevam Foundation.

A further improvement that has been made concerns examinations on specific aspects of a training course, for which certificates can then be obtained. This system permits training to be continued after an interruption.

The Dutch apprenticeship system has traditionally had the particular advantage of enabling those who have had little success in their previous school education to obtain a training. There are no minimum admission requirements (although, interestingly enough, there are upper limits). Nevertheless, it is found that, especially when the labour market is tight, young people with limited abilities have difficulty in finding a job or training place. As a result, various assistance schemes have been introduced. While these have in the past principally taken the form of general monetary incentives, they are now aimed more specifically at groups whose prospects are poor, and in particular young people who have been unemployed for some time and/or have not completed their preliminary training.

Special attention is being paid to the difficult position of girls. To persuade industry, and above all the technical sectors, to take on more girls, five projects have recently begun.

From the above it is clear that the Dutch apprenticeship system has many of the features which, according to the European Community resolution, form the essence of linked work and training. Efforts are also being made to improve situations where problems arise.

It is obvious that in certain respects problems will continue to occur. They are connected with the sensitive nature of the economy, dependence on the number of available jobs and the limited opportunities for transfers between training courses. It was realized that if these problems are to be solved, a different approach was required, and this takes the form of new/follow-up vocational education.

#### *Pilot projects in new/continuing vocational education*

This new educational facility was introduced last year (1979) in the form of various pilot projects (over 20). A great

deal therefore remains to be done by way of practical trials and development. But this concerns details. The principle is clear. In view of the specific nature of this new educational form, some of its principal features are outlined below.

The education provided in these projects is full-time. It is characterized by a variety of curricula, including guidance, linkage and vocational training curricula, which makes it possible to adjust to the specific requirements of the participants. In the case of the vocational training curricula (which is what the follow-up concerns) the final level achieved is equivalent to that of a primary apprenticeship. A certificate is not required for admission.

The similarity with linked work and training is to be found primarily in the didactic methods used, which are based on the principle of learning by participation. The approach adopted in accordance with this principle aims at attuning the process of education more closely to events outside the school, particularly by taking the pupil's practical experience as the basis during the process of learning. Such experience may be obtained not only in in-school learning situations (training centres, workshops, etc.) but above all in situations outside the school (on the job, for example), during practical training courses and so on.

It is thus clear that the combination of learning and working and of theory and practice are very important in this form of education. Otherwise, it is completely different from apprenticeship-type training. The pupil is, for example, no longer an employee as well, and the school, rather than the school and the firm together, is in the first instance responsible for the way in which training is provided. Industry is naturally involved in the establishment of curricula and in the setting of tests and final examinations through the national apprenticeship boards. These differences affect the details of the concept of linked work and training.

The link between learning and working can be organized far more flexibly now that the fixed link between training and a specific job has been dropped and a variety of learning situations, in more than one job for example, is possible. Productivity is material only in so far as it is relevant to the learning process. The organization and achievement of the link between theory and practice are, subject

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to certain general conditions, a matter for the school. This means that there is no direct need for special guarantees or measures to ensure the maintenance of this link. From the outset the school can establish and monitor it.

The new form of education is a boon for various categories of young people, especially those who wish to attend a full-time course of theoretical and practical training, those who want to make good their lack of preliminary training and those who see no chance of finding a job at this time of widespread unemployment.

### **Concluding remarks**

A number of basic features of vocational training courses have been discussed

which, despite completely different premises, are characterized by varying degrees of linked work and training. This note has concentrated primarily on the differences, although the intention has not been to emphasize the advantages and disadvantages of each system as such. Nor would such an approach be in line with a policy that in fact aims at encouraging the link between them.

The importance of this approach is evident: the disadvantages can offset each other, while the opportunities offered to young people by both systems are considerably increased. The plan is to have one facility which functions like a system of communicating vessels with respect to the labour market.

All young people at whom the Community resolution is directed should in prin-

ciple be given a chance, even if they face sudden changes in their social position. Work is being done in both fields to forge this link, for example by creating opportunities for transfers. To this end, block training schemes leading to the award of a certificate are being developed. In addition, the experience gained in one system can be used to the benefit of the other.

*K. W. van Dyken*

Ministerie van Onderwijs en  
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## The different forms of teaching by alternating periods of theoretical in-school vocational training and practical training in firms

The following forms of instruction will be briefly described:

- Craft, industrial and commercial apprenticeship;
- Commercial instruction;
- Paramedical instruction.

### Craft apprenticeship

Organizational chart of craft courses (shortened course)

(a) shortened courses

#### Structure

Boys and girls who wish to learn a craft are already able to benefit from a vocationally oriented education during their compulsory schooling. This takes place in the 9th school year in the vocational school and is called 9th vocational or 9th full-time education.

These classes offer vocational instruction in theory and in practice for a number of similar trades. Since the pupil can acquire knowledge of the various aspects of these trades in the course of the school year, it will be easier for him at the end of the 9th to opt for a specific craft. In addition, his apprenticeship will be reduced by one-half to one year. Successful completion of a 9th vocational offers not only a reduction in course time but another major advantage: the apprentice need not sit an examination in the following subjects at the end of his training: languages, hygiene, correspondence, documents and civics.

At the age of 15 years (end of compulsory schooling) the pupil then enters his apprenticeship proper.

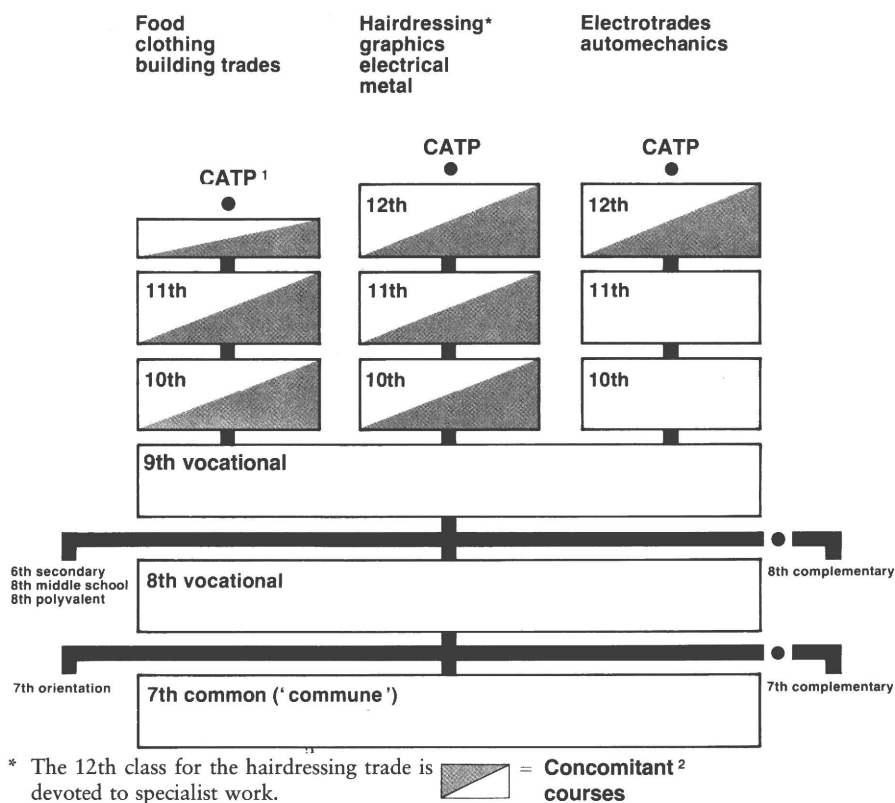
During the same period of time that the apprentice receives practical on-the-job training, he attends the vocational school on a weekday in order to perfect his theoretical knowledge of the chosen trade.

#### Length of study

The course lasts for a different length of time according to the trade chosen. The apprenticeship time after successful completion of the 9th vocational is laid down as follows:

- For apprentices in the food, clothing and building trades: two and a half years, two of which also feature concomitant courses.

Organizational chart of craft courses (shortened course)



<sup>1</sup> CATP (Certificat d'aptitude technique et professionnelle = Certificate of Vocational Aptitude.

<sup>2</sup> Cours concomitants/concomitant courses are the part-time courses (mostly a certain number of hours per week) taken in schools which accompany training in enterprises.

- For apprentices in the hairdressing and cosmetician trades: three years, two of which feature concomitant courses and one year featuring practical courses.
- For apprentices in graphic arts, metal and electrical trades: three years apprenticeship with concomitant courses
- For apprentices in car mechanics and electricity there is the possibility of following a second full-time year (10th year auto mechanic and 10th year electro-technician) and finally signing a two-year contract. In Esch/Alzette there is also a 10th year wood course (wood-working) with full-time instruction.

Pupils who enter a course of instruction for jobs in radio, television or electronics attend an 11th year full-time course (11th year electronic) as well, and then sign a one-year apprenticeship contract.

**(b) Non-shortened course**

**Structure**

The pupil who normally completes his compulsory schooling at the age of 15 can enter a craft apprenticeship directly, if he makes a written contract with a master craftsman.

Practical instruction is given by the firm, theoretical instruction at the vocational school. In the first year (9th year supplementary) recap courses which correspond to the specific theoretical section of a 9th year vocational class course are given (see above for information on shortened course). These courses, like the concomitant theoretical courses of the subsequent apprenticeship (in 10th, 11th, and 12th) are given once a week.

In order to enter the second year of apprenticeship (10th) at the end of the

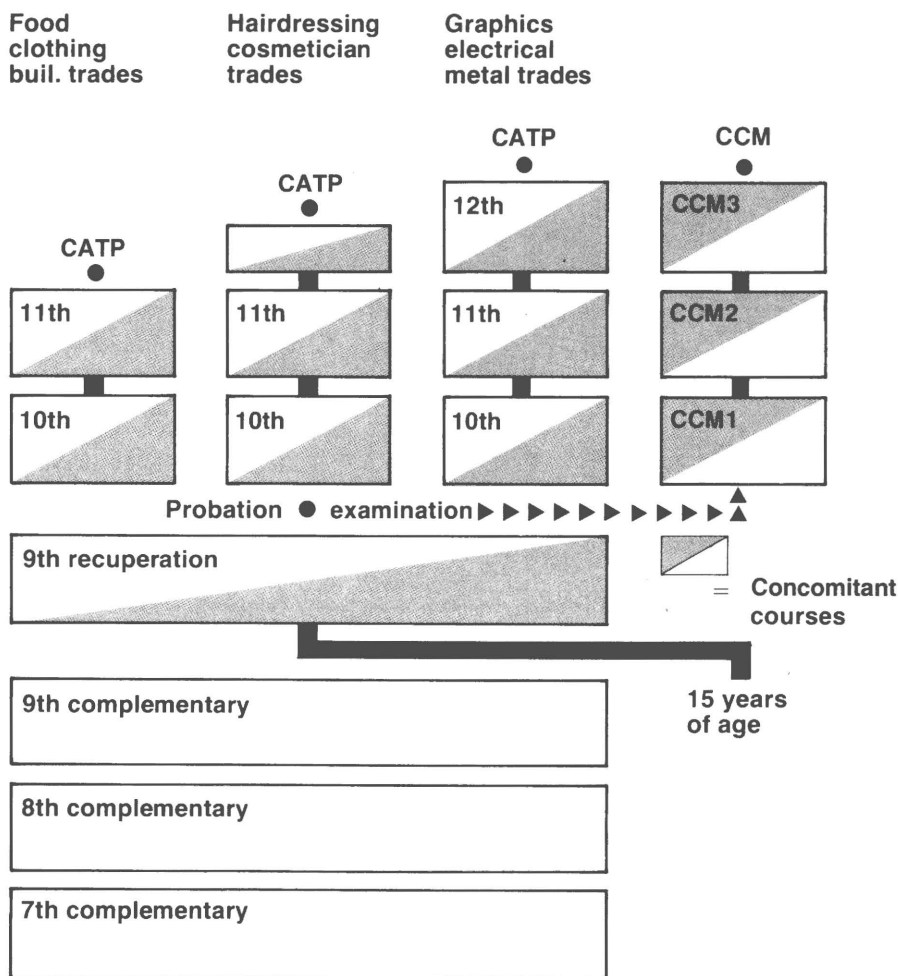
9th (repeat) class, however, the apprentice must sit a transition examination (probation examination) and pass at least the specialist theory section (trade knowledge, technical arithmetic and technical drawing). The student can also sit the examination in general theory (languages, hygiene, correspondence, documents and first part of civics) in the following years of the apprenticeship. He must have completed the study of these subjects successfully in order to be admitted to the apprentices examination.

**Length of apprenticeship**

In comparison to the shorter course, the length of this course is a half to one year longer. The following periods are laid down for the individual trade groups:

- For apprentices in the food, clothing and building trades: three years apprenticeship with concomitant courses.
- For the hairdressing and cosmetician trades: three and a half years of apprenticeship with three years of concomitant courses and six months of complementary courses.
- For the metal, electricity and graphics trades, generally four years of apprenticeship with concomitant courses.

Organizational chart of crafts apprenticeship (non-shortened course)



*Industrial apprenticeship*

**Structure and length of study**

Industrial apprenticeship offers young people complete training which makes relatively high demands on the apprentice. At present, according to requirements, training can be given in the following industrial trades: metal-working mechanics, construction fitters, turner, turner-shaper, welder, ladler, pattern makers, industrial vehicle mechanics, electro-mechanics, radio and TV electricians, winders, technical draftsman, construction draftsman, etc.

The course proper lasts for three years (10th, 11th, 12th). In this period the student receives in addition to practical instruction in the firm, extensive theoretical instruction in the vocational school during 16 (24) hours per week.

Candidates accepted for industrial apprenticeship are those who have successfully completed a 9th year (preferably in metal-electricity) or who have undergone an accepted aptitude test after their compulsory schooling.

Before beginning the apprenticeship proper, the candidate for training enters into an apprenticeship contract under the aegis of the Chamber of Commerce.

*Commercial apprenticeship*

**Structure and length of study**

Commercial apprenticeship covers two trade groups:

- Office employees: secretarial or accounting options;
- Sales, warehousing and display and window dressing.

This training prepares for the lower levels of commercial and administrative work. Apprenticeship lasts three years. The theoretical training comprises full-time instruction in 9th and 10th commercial.

At the beginning of the 10th commercial class, the candidate may choose between the two options: secretarial or accounting. The theoretical section of the final apprenticeship examination takes place at the end of 10th commercial.

The pupils then follow a practical course of one year, signing an apprenticeship contract under the aegis of the Chamber of Commerce, with a bank, industrial, trade or similar concern, at the end of which the practical section of the apprenticeship examination is taken and the vocational aptitude certificate is awarded (CATP).

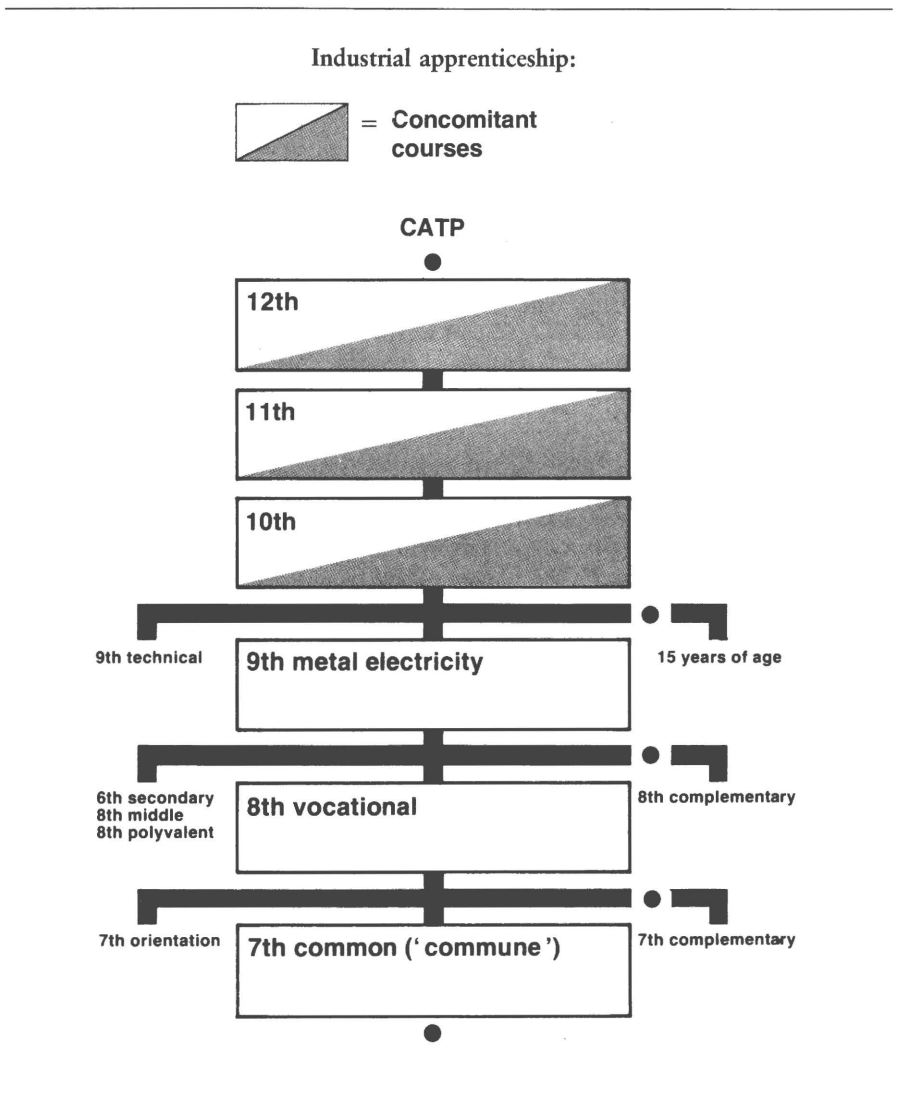
Theoretical instruction is given in the State vocational schools of Luxembourg, Esch-sur-Alzette, Ettelbruck, Wiltz and Grevenmacher, and in private schools.

**Entry conditions**

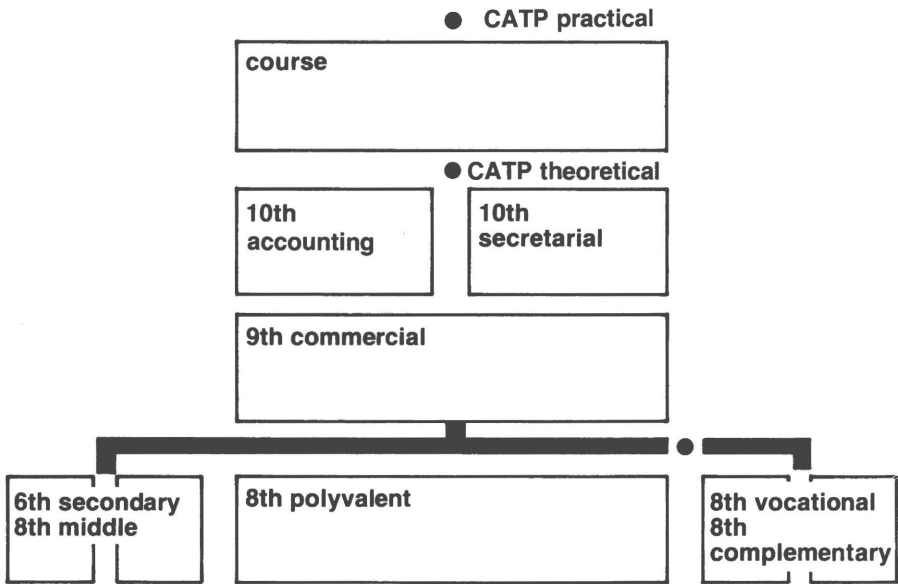
Pupils are accepted for the 9th commercial without an entry examination if they have successfully completed the 6th secondary school class, the 8th middle school class or the 8th polyvalent class.

There is another possibility: pupils of the 8th complementary or the 8th vocational can sit an entry examination (German, French, English, arithmetic). This entry examination is based on the 8th, polyvalent curriculum.


A first means of entry to commercial apprenticeship is by taking 7th common and 8th vocational and going on to 9th, sales. After successful completion of 9th

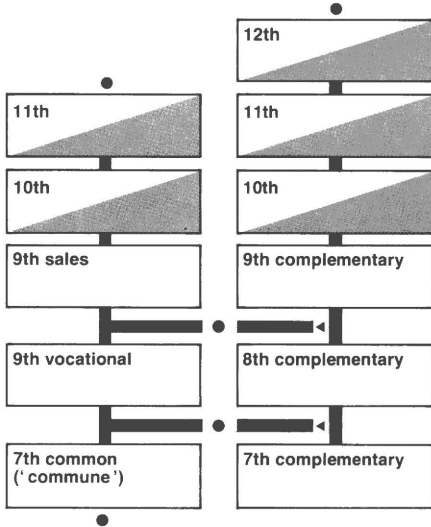


**Office employees: secretarial or accounting options**



**Sales, warehousing and display and window dressing**

 = concomitant courses



sales the pupil signs a contract of apprenticeship with a businessman, under the aegis of the Chamber of Commerce. Apprenticeship lasts two years with attendance at school one day each week (10th, 11th). It is also possible to enter 8th vocational after the 7th complementary or by passing an entry examination to enter 9th sales from the 8th school year.

A second route is open at the end of compulsory schooling. Candidates who have successfully completed the 9th year of study or have written the appropriate vocational test can enter into an apprenticeship. In this case the apprenticeship with attendance at school lasts three years (10th, 11th, 12th).

Holders of the CATP can easily obtain a commercial licence.

*Hotel/catering apprenticeship*

**Structure and length of study**

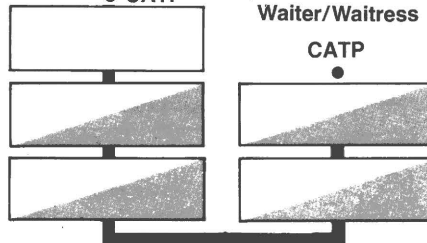
This training leads to the trades of cook and of waiter or waitress.

The apprenticeship for a cook lasts for three years, while that of waiter or waitress lasts for two years.

The theoretical instruction concomitant to the practical on-the-job training for these two professions is fixed at present

**Cook**

● CATP



**Completion of compulsory schooling**

at three instruction periods of three weeks each (Blockunterricht) for each year of training.

The holder of a CAP can obtain a commercial licence without difficulty.

Paramedical training proper begins in the 9th year.

*Paramedical training*

● **Schooling**

The curricula of the 9th, 10th and 11th paramedical classes include in addition to

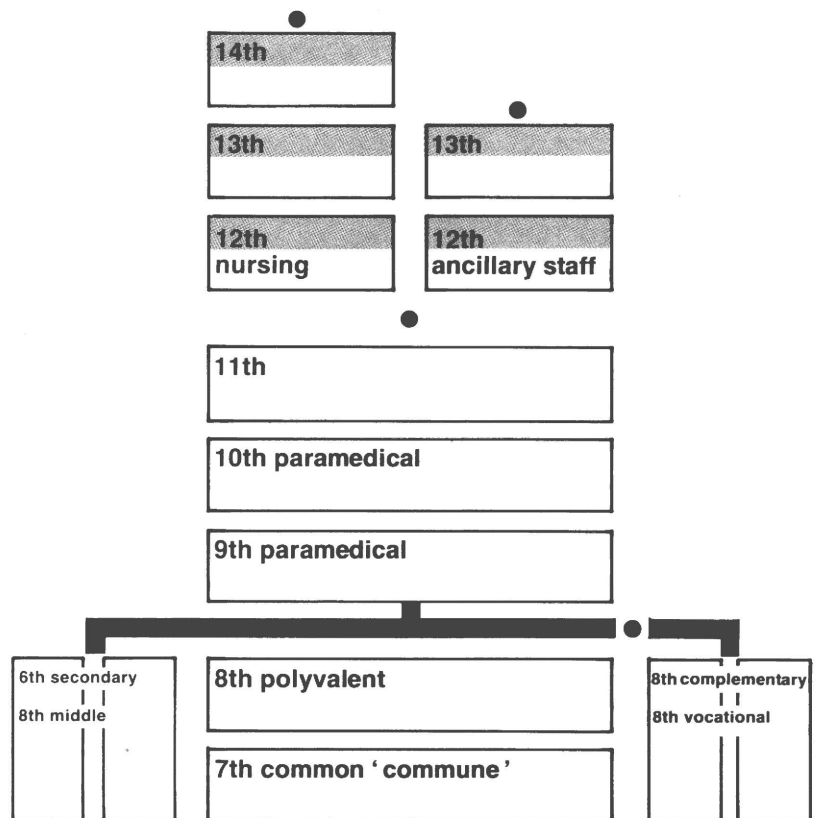
languages, mathematics and general educational subjects such vocationally oriented subjects as biology, anatomy, physiology, chemistry, physics, hygiene, first aid, psychology, nutrition and so on.

An examination is held after the 11th year. Students who pass this examination receive a certificate (certificate of completion of preparatory studies for the paramedical and social professions) which enables them to begin clinical training if they so desire.

**Clinical training**

During the three years of training in the specialized nursing schools of the clinics, the future male and female nurses receive practical and theoretical vocational training and are paid for their work. Training in these schools is completed by a leaving examination. If a student passes this examination he or she receives the State Nurse's Diploma.

Besides the training programmes already described above, it should be noted that





pupils pursuing chemist's training and those in hotel business training are required to complete a practical training period in a firm. The length of this training period varies from four weeks for chemists to  $3 \times 10$  weeks for pupils in hotel training.

## Organization of vocational training

### *Responsibility for instruction and finance*

All theoretical and practical vocational training, with the exception of paramedical training which comes under the Ministry of Health, comes within the competence of the National Ministry of Education, without prejudice to the professional chambers.

Vocational training is free in the Grand Duchy of Luxembourg. Apprentices receive a stipend during the apprenticeship and periods of theoretical school training. Theoretical training in school and practical training in the firm combined cannot total more than 40 hours per week.

### *Curriculum and content*

The division of training time between in-school study and on-the-job training varies according to the year of study and the trade chosen. Theoretical training at school may be one day per week, instruction grouped in a period of several weeks, or take several years followed by a certain period of full-time practical on-the-job training.

A selection of timetables and syllabuses are set out in the attached annex to illustrate this.

### *Teaching staff*

The following teachers participate in the training process in the school, according to the level of studies and the trade to be exercised:

- teachers who are qualified engineers;
- economics and social science teachers;
- technical trade teachers;
- auxiliary technical trade teachers;
- master craftsmen in special classes;
- practical course masters (instructors).

### *Statistical data*

The following statistics are for the 1977/78 school year (latest officially published figures):

- Full-time secondary technical education, that is, pupils following theoretical and practical vocational training in a school:
 

Male	5 842
Female	5 473
Total	11 315
- Part-time secondary technical education, that is, pupils following theoretical training at school part-time, and practical training in a firm:
 

Male	2 290
Female	815
Total	3 105

(N.B. The figures quoted in the above paragraph deal with craft, industrial, commercial and hotel apprenticeship.)

## Practical training in firms

The principal method used for on-the-job training is apprenticeship. The principal characteristics of this method are as follows:

- The field of application is limited to a certain number of craft, commercial, industrial and hotel trades. The agricultural sector is not involved. Trades for which apprenticeship is demanded are decided on by the relevant professional chambers.
- An apprenticeship contract, the form and content of which are legally laid down, is compulsory.
- This contract covers:
  - concomitant theoretical training at a vocational school;
  - practical training in a craft, industrial or commercial establishment.

The organizational charts set out the organization and duration of on-the-job training.

### *Financial responsibility for vocational training in firms*

Vocational training in the firm is financed by the firm itself.

The apprentice receives an apprenticeship stipend, the minimum of which is fixed by the Government on advice given by the relevant professional chamber, during the training period.

### *Instructors*

The competent employers' professional chamber, following the advice of the

professional chamber to which the apprentice is attached, establishes the number of apprentices which firms may train. The person responsible for the training of the apprentice must have master's papers for the trade for which the apprentice has signed a contract (crafts) or the relevant qualifications demanded by the firm (commercial sector). The firm alone is the judge of the instructor's qualifications in the industrial sector.

## Methods of coordination between theoretical in-school training and practical on-the-job training, and relations between teachers/instructors and apprentices/or trainees

The coordination between the various forms of training and the people involved is carried out basically within the framework, and by means, of the following bodies and groups:

- The Coordinating Committee for Vocational Training, made up of the Superintendent of Vocational Training, a representative of the Ministry of Education, representatives of headmasters of technical schools, and representatives of the competent professional chambers.
- The National Commissions on craft, industrial, commercial and hotel industry apprenticeship which are responsible for:
  - strengthening by regular meetings the cooperation between the technical and vocational teaching establishments on the one hand and the employers' vocational training centres and the training workshops in firms on the other hand;
  - ensuring that all regulations concerning apprentices are put into practice;
  - proposing improvements in both institutional structures and apprenticeship organization to the Ministry of Education;
  - supervising the harmonious evolution of the apprenticeship with the corresponding technical instruction;
  - updating promotion criteria for pupils and drawing up proposals for such updating;
  - in case of disagreement or conflict, to act as arbitrators and conciliators between those responsible for on-the-job training and those responsible for schooling;

- organizing study visits to firms for school instructors.

These Commissions are made up of:

- representatives of the Ministry of Education, one of whom is the Government Superintendent of Vocational Training;
- representatives of technical training institutions providing vocational training, one of whom must be a headmaster;
- representatives of the competent employer's professional chamber;
- representatives of the competent workers' professional chamber;
- representatives of firms giving apprenticeship training, one of whom is the counsellor for the apprenticeship concerned.
- The National Curriculum Committees which draws up the syllabuses for vocational theory and practical training. Representatives of the government and the relevant professional chambers as well as specialized teachers make up these committees.
- The Superintendent of Vocational Training for the government who coordinates practical and theoretical syllabuses and ensures general supervision of vocational training, the final apprenticeship examination and the master's examinations.
- The apprenticeship counsellors whose statute is established contractually by the national Ministry of Education and the relevant professional chambers are responsible for contributing to the continuous adaptation of vocational training to technical developments at both the firm and school level, and to maintain contact with both the apprentices and their families.
- The apprentice's book, the model of which is approved by the national Ministry of Education on the advice of the professional chambers, allows those responsible for training to evaluate the progress of the apprentice in the workshop by marking according to the progress achieved.
- Report cards also give information on the apprentice's progress in the school-work proper as well as progress made in the workshop to which he is apprenticed. Those responsible for the practical workshop training, forward the marks obtained by the apprentice for this work to the vocational training establishments.
- The Class Council, composed of the headmaster of the teaching establish-

ment, the teachers of specific classes, those responsible for practical training as well as a member of the psychological and vocational guidance services, and, if these are not available, a member of the employer's psychological service.

It should be noted that the professional chambers organize educational courses and seminars for those responsible for in-firm training.

The professional chambers, within the parameters of their responsibility for supervision and verification, organize spot tests to check on whether the apprentice's progress and marks in the apprenticeship book and the results obtained in the spot tests have any relation.

## Recent developments

The law of 21 May 1979 bearing on the organization of vocational training provides for a middle section, vocational stream, characterized by apprenticeship composed of practical training in a firm and attendance at concomitant vocational classes in a technical school.

The vocational training system is broken down into the following sections:

- a craft apprenticeship section;
- an industrial apprenticeship section;
- a commercial apprenticeship section;
- a hotel, catering and service apprenticeship section;
- an agricultural apprenticeship section;

Each section provides two methods of apprenticeship:

- the concomitant plan, comprising at least three years of classes concomitant with practical on-the-job training;
- the mixed plan, comprising either one full-time educational year followed by two years of concomitant courses, or two full-time educational years followed by one year of concomitant classes.

The theoretical section of the apprentice's leaving examination is held at the end of the 11th year. In the 12th year the practical training, within the framework of the school and the firm, preparing the pupil for the practical part of the apprenticeship leaving examination, is reinforced.

At least eight hours per week of compulsory concomitant vocational classes must be attended during the entire apprenticeship.

The Ministry of Education may, on the recommendation of the competent professional chambers, increase the number of compulsory weekly classes for certain trades whose specific needs justify a more extensive theoretical preparation.

Grand-Duchy regulations allow other ways of organizing concomitant vocational classes, on the recommendation of the competent professional chambers, without, however, permitting any modification to the minimum number of lessons attended.

## Bibliography and sources

### Legislation

- Law of 5 January 1929 on apprenticeship, modified by an Order of 8 October 1945
- Regulation of 10 September 1966 bearing on apprenticeship organization in certain crafts
- Regulation of 25 August 1978 reforming industrial apprenticeships
- Regulation of 15 June 1979 reforming apprenticeships for cooks and waiters or waitresses
- Law of 23 November 1966 establishing preparatory instruction for paramedical trades
- Law of 21 August 1969 establishing chemistry departments in vocational and technical schools
- Law of 21 May 1979 on the organization of:
  - vocational training and secondary technical instruction;
  - further vocational training.

### Bibliography

- *Information Bulletin: Vocational Training*, Luxembourg supplement, 1977 (EEC catalogue number: CE-NA-77-009-EN-C)
- Bureau luxembourgeois d'information et de correspondance pour le développement de la formation professionnelle: *Report on the objectives and characteristics of vocational training systems* (August 1977)

# DK

## Types of training course involving alternating periods of school and practical experience

The Danish educational system is based on a compulsory nine-year period of schooling, during which the same curriculum is followed by everyone (see Fig. 1).

In the further education system, training involving periods of instruction in school alternating with periods of practical experience is encountered most frequently in conjunction with the types of training course which follow on directly from the nine-year compulsory municipal public school (which may additionally include a tenth year), whereas those areas of advanced education which follow on from the Higher Secondary School ('Gymnasium') or the Higher Preparatory Examination ('HF') include only a limited proportion of time spent alternately at educational institutions and in a practical working environment. This report will therefore concentrate on those types of course which do not require the Higher Preparatory Examination ('HF') or attendance at the Higher Secondary School ('Gymnasium') as a preliminary qualification. For this reason, the principal areas covered will be those of technical and commercial training.

Figure 2 is a survey of admissions to the various categories of further education in schools in Denmark over the last 40 years.

There are at the present time two alternative courses of instruction for young people in both technical and commercial subjects; one of these is apprentice training, which is also referred to as the skill-

Fig. 1: The Danish educational system

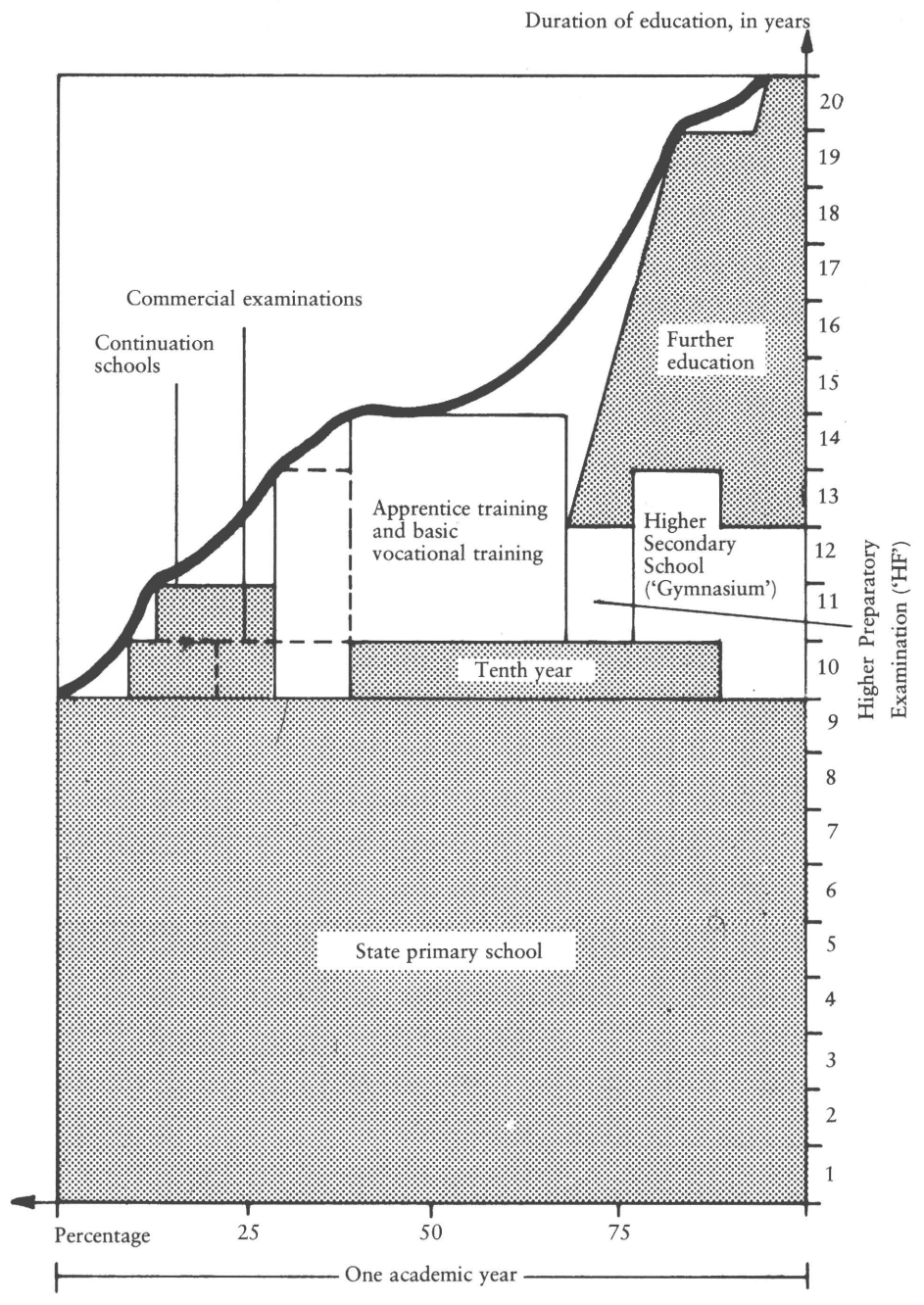


Fig. 2: Pattern of admissions to courses for 16–19 year-olds from 1939 to 1979

Year	Vocational training				Those with preliminary qualifications (School Leaving Certificate, Higher Preliminary Examination ('HF'))	Total
	'EFG' (basic vocational training)	Apprentices	Technicians	Total		
1939	—	10 900	—	10 900	3 000	13 900
1950	—	18 900	—	18 900	3 500	22 400
1960	—	33 100	900	34 000	7 900	41 900
1965	—	37 400	2 300	40 200	11 200	51 400
1970	200	28 000	3 000	31 000	18 200	49 200
1975	6 400	15 000	2 200	23 600	23 700	47 300
1976	9 000	21 000	2 400	32 400	24 000	56 000
1977	13 000	20 300	3 100	36 400	24 700	61 100
1978	27 000	18 700	3 100	48 900	28 600	77 500
1979	31 000 <sup>1</sup>	16 000 <sup>1</sup>	3 300 <sup>1</sup>	50 300 <sup>1</sup>	31 500 <sup>1</sup>	81 800 <sup>1</sup>

<sup>1</sup> Estimated figures.

Source: 'Uddannelse' (Education) 6/1979, p. 355.

led trade course ('mesterlæren'), and the other is basic vocational training, abbreviated to 'EFG'. Both courses are structured around periods of attendance at school alternating with periods of practical instruction, but exhibit the basic differences which may be seen below. Both types of course last for between two and four years, but with shorter, alternative courses being available in both the technical and commercial areas. Particularly in view of the level of unemployment observed in recent years amongst young people, a series of experimental courses has been run, whose structure is unlike that of the existing system; a description of these developments may be found under 'development trends'.

#### Organization and financing of the training

A large proportion of the basic training courses is now under the supervision of the Ministry of Education, including the two main types, the skilled trade course and the 'EFG' (basic vocational training). This is also true of the technician courses, which are a group of courses on technical subjects which on the one hand are run in parallel with the skilled trade course and the 'EFG' (basic vocational training), but which on the other hand offer the possibility of further education following a basic trade training.

Similarly, the training of assistant marine engineers also falls under the authority of

the Ministry of Education. This course will ultimately lead to employment within the merchant fleet, and is based either on a trade training or on some other kind of practical training.

The Ministry of Education is responsible for one other type of training course involving alternating periods of attendance at school and practical experience: the training of kindergarten and pre-school teachers.

Courses linked to the requirements of the labour market include the training of semi-skilled workers, the further education of skilled workers and re-training courses. All these are the responsibility of the Ministry of Labour. The courses may be regarded as an important tool of employment policy by means of which a contribution may be made to the mobility and flexibility of the labour force.

Agricultural training was previously unrestricted, and it was the responsibility of each individual to decide on the content of the course and his period of practical experience. This kind of training was brought under the control of the Ministry of Education a few years ago, since when a rigid structure has been laid down which includes alternate periods of attendance at school and in practical training.

In addition to the above, there exists a wide range of other courses, under the control of the various ministries, for which it is assumed that a period of

Apprenticeship courses (Skilled trade courses)  
a) Industry and crafts  
b) Commercial and clerical

Basic vocational training (EFG)

Technician courses

Training of semi-skilled workers

Agricultural training

Child care and nursery teachers

Kindergarten and pre-school teachers

Medical attendance training

Maritime training

Fig. 3: Survey of the basic vocational training courses in Denmark involving alternating periods of theory and practice.

Ministry of Education Law of 2. 10. 56 Official Gazette of 16. 10. 73	Running costs: 80 % met by the State 20 % met by the commune Installations: Equipment 85 % State grant Buildings $\frac{5}{6}$ interest- and tax-free State loan	A salary will be paid for the entire duration of the training (the amount of which is to be set by agreement).	State school for nine years (possibly a tenth year)	From two to four years a) Total attendance at school 25-40 weeks, divided into terms of 10-13 weeks b) Introductory schooling of 10-20 weeks, followed by two terms of 20 weeks each
Ministry of Education Law No 289 of 8. 6. 77	Running costs: 100 % met by the State Installations: Equipment 100 % met by the State Buildings $\frac{5}{6}$ met by the State	Foundation year: Either a youth grant or State educational grant	State school for nine years (possibly a tenth year)	From two to four years 1st part: One foundation year at school 2nd part: Alternating periods of attendance at school and practical experience of varying content
Ministry of Education Law No 191 of 4. 6. 64 and Official Gazette of 18. 7. 68	Running costs: 100 % met by the State Installations: Equipment: 100 % met by the State Buildings: $\frac{5}{6}$ met by the State	Period of schooling: Either a youth grant or a State educational grant Practical experience: a wage will be paid	State school for nine years	1 $\frac{1}{2}$ years 1. Half a year at school 2. One year of practical experience
Ministry of Labour Official Gazette No 271 of 2. 6. 71	Running costs: 100 % met by the State Installations: 100 % met by the State	Training allowance instead of unemployment benefit	Must be 18 years of age, and already employed in the field in which instruction is to be given	A total of about half a year's schooling Modular structure, with three to five weeks spent on each school module and with intervening periods at work
Ministry of Education Law No 259 of 4. 6. 70	Running costs: 85 % met by the State Installations: 50 % State loan	Period of schooling: a grant (cf. Law No 259) Practical experience: a wage will be paid	State school for nine years + three months' preliminary school instruction for children living in towns	Four years A total of one year in school + three years' practical experience, divided up as follows: 6-12 months for every three months at school 30-24 months for every six + three months at school
Ministry of Social Services Official Gazette No 202 of 12. 4. 76 and No 207 of 26. 4. 76	Running costs: 100 % met by the State	Installations: Interest- and tax-free State loan	A minimum of ten years' attendance at school and in possession of leaving certificate; over 18 years of age and with marks awarded in accordance with the points system	3 years Attendance at school/Practical experience
Ministry of Education Law No 209 of 21. 5. 69	Running costs: 100 % met by the State Installations: interest- and tax-free State loan	Educational grant (cf. Law No 113 of 9. 4. 75)	A minimum of nine years' attendance at school and in possession of leaving certificate; over 18 years of age and with marks awarded in accordance with the points system	Three years Attendance at school/Practical experience
Ministry of the Interior circular letter January 1978	(a) Communal schools Running costs: 100 % met by the commune Installations: 100 % met by the commune (b) Individual private schools	A salary will be paid for the entire duration of the training	Nine years' attendance at school with leaving certificate and at least 18 years of age	Eleven months Attendance at school/Practical experience
Ministry of Commerce Law No 70 of 15. 3. 67, as amended by Law No 339 of 26. 6. 75	Running costs: 100 % met by the State Installations subject to approval of the Ministry of Commerce	Schooling: Youth grant (cf. Law No 310 of 26. 6. 75) Educational grant (cf. Law No 113 of 9. 4. 75) Practical experience: a wage will be paid	Nine years' attendance at State school, and at least 16 years old on completing the basic course	a) Five years Five months in school, 31 + 24 months of practical experience b) Two years seven months Five months in school Twenty-one months of practical experience Five months in school

\*Source: Data supplied by the Divisional Board for Further education in Schools (Sektorrådet for de fortsatte skolenddannelser), January 1979.

schooling alternating with practical experience will have been completed beforehand, as may be seen from Fig. 3.

Instruction in these vocational courses is given in schools which are more or less specialized, depending on the subject areas covered by the courses. Such specialization means that the principal aim of achieving distribution throughout the various regions of the country may only be implemented to a limited extent. This is one of the contributory factors to the significant preference amongst today's young people for courses at the higher secondary schools ('gymnasium'), with centres of instruction located throughout the country, rather than for the vocational training courses which for the most part oblige the young people to find accommodation outside their families.

The apprentice and 'EFG' (basic vocational) courses within industry and the crafts are held in technical colleges, of which there are 51 at the present day. This type of course is highly specialized, requiring the fitting out of workshops and laboratories for simple subjects. Twenty-four of these technical colleges also run courses for technicians.

There are 58 commercial colleges in total, which for the most part are located in cities with more than 20 000 inhabitants. These are basically set up to provide theoretical instruction, and are far less specialized than the technical colleges.

Training courses for semi-skilled workers are held throughout the country at 39 schools in all, over a very wide range of subjects.

Agricultural training is available at 23 agricultural colleges, which formerly also housed domestic science courses.

The manner in which the different types of course are financed may be seen from Fig. 3, and there now follows a more detailed analysis of the sources of income of the students in relation to the skilled trade and basic vocational training courses.

Apprentices on a skilled trade course will receive a wage for the entire period of their apprenticeship, i.e. during both their period of attendance at school and their practical experience. The level of this wage will be set by agreement between the employer and the employees' organizations. Once they have reached

18 years of age, apprentices may also take out State-secured bank or savings bank loans. Students on the basic vocational course received an allowance from the State for as long as this type of training was still regarded as experimental; the size of this allowance was fixed on the basis of the wages which the apprentice was receiving at the corresponding stage in his training in the same main subject area. The allowance was paid both during the foundation year of the basic vocational course and during the periods of attendance at school in Part 2 (see details of the courses below). A change took place in the conditions in the intervening period, when the law relating to basic vocational training courses was finally adopted in 1977, with the result that the allowance was discontinued in the foundation year. The students were then left to live off contributions from their parents, by taking a job, or by accepting public assistance. Public assistance consists basically either of youth grants (for those below 18 years old) or of State educational grants (for those over 18 years old). The possibility of receiving public assistance is dependent on the income of the parents. This deficient treatment of the young people in these two areas of education, apprentice training and basic vocational training, is believed to be the reason why admissions to basic vocational training courses have not come up to expectations.

In the summer of 1978, the Finance Committee voted an amount of 25 million DKR to be used on an annual basis for students in the foundation year of the basic vocational training course. This grant is made available according to need, and the sums payable have been fixed within a range from 1 000 to 4 000 DKR per student per year.

As yet, no extensive investigation has been made into the effect of the discontinuation of the allowance in the foundation year in producing a shift in the socio-economic circumstances of the students. In the course of a small-scale survey carried out as part of the food technology course, a group of researchers at the RUC (Roskilde University Centre) was unable to demonstrate any clear effect (*Source*: 3rd Report on the foundation Year of the Basic Vocational Training Course). Interviews with teachers and students conducted as a part of the same survey revealed that many students would have preferred to embark on the apprenticeship course,

and in fact only started the basic vocational training course because they were unable to find a place on an apprentice course. However, it will be seen below that this preference for the apprenticeship is a more complex problem which is not only linked to the question of wages being paid during the first year of the course.

#### *Training programmes and their content*

There is simply not room in this report to deal with the planning and content of all aspects of the vocational training courses. We will concentrate our attention in the following on the alternation of the training between attendance at school and practical experience, and on the association of subjects and disciplines in relation to the exercise of the trade during the period of practical experience.

#### **Apprentice training (skilled trade course) within industry and the crafts**

Apprentice training is structured in such a way that it is highly specialized from the very start, with attendance at school accounting for between 25 and 40 weeks in all out of a total period of study of between two and four years.

As may be seen from the basic diagram in Fig. 4, training starts with a period in school (this will last for between 10 and 12 weeks), with the remainder of the instruction in school being distributed over the rest of the period of study in the form of periods of varying length.

Over recent years, there has been a considerable updating of the content of the apprentice training courses, and there has been a general tendency for these to come closer in content to the basic vocational training courses. The courses are now characterized by an increased proportion of instruction in school, with greater emphasis being placed on theory and general subjects, as well as by the introduction of workshop training in the schools.

#### **Apprentice training within the commercial and clerical fields**

Training within the areas of commerce and clerical work also starts with a period in school which lasts for between 10 and 20 weeks, with further periods of instruction in school at a later date in the form of two terms each of 20 weeks'

duration. Instruction is given in a more general range of subjects such as foreign languages, business studies and sociology, as well as in commercially oriented subjects such as arithmetic, accounting, typing, signwriting and commercial studies.

### Basic vocational training

All basic vocational training courses consist of a one-year foundation course at school, followed by a second part of the course which combines attendance at school and a period of practical experience and which lasts for between one and three years. The basic diagram for the basic vocational training courses is shown in Fig. 5, and indicates the alternation between school and practical experience for the principal areas of the courses.

At the present time, this training system is made up of eight basic courses, each of which corresponds to a main subject area: building and construction art; commercial and clerical; iron and other metals; agriculture; food; service industries; inland transport.

The basic courses within the main subject areas are divided up into between 20 and 35 training areas during the second part of the course. Some of the courses have a number of levels, so that several grades of ability may be achieved in the trade concerned.

It was originally intended that the foundation year should be completed by

everyone in the same main subject area, but this idea was never fully put into practice and extensive specialization takes place within the service industries and in the area of iron and the other metals as early as the first year of the course.

The foundation year which in its entirety is spent in school, together with a large proportion of the general subjects, was a new departure which was intended to give the students a better grounding in the more general qualifications. However this foundation year does pose problems for some of the students, since the basic vocational training courses are made up to a large extent of young people who do not continue their education through the State school system via the higher secondary school ('gymnasium') or the higher preparatory examination ('HF') because they have grown tired of school. They are therefore disinclined to become involved in a form of education which resembles the one which they believed they had just escaped from after all these years. An analysis of the factors attaching to the lack of motivation exhibited towards this instruction forms part of the educational development work which is being carried out this year by a group of researchers at the RUC (Roskilde University Centre) as part of the food technology course within the area of basic vocational training.

Attempts are being made within the education provided in the foundation year to create continuity, both within the general subject areas themselves and between the general subjects and the

more academic subjects, just as efforts are also being made to create concrete links with the periods of practical experience which follow.

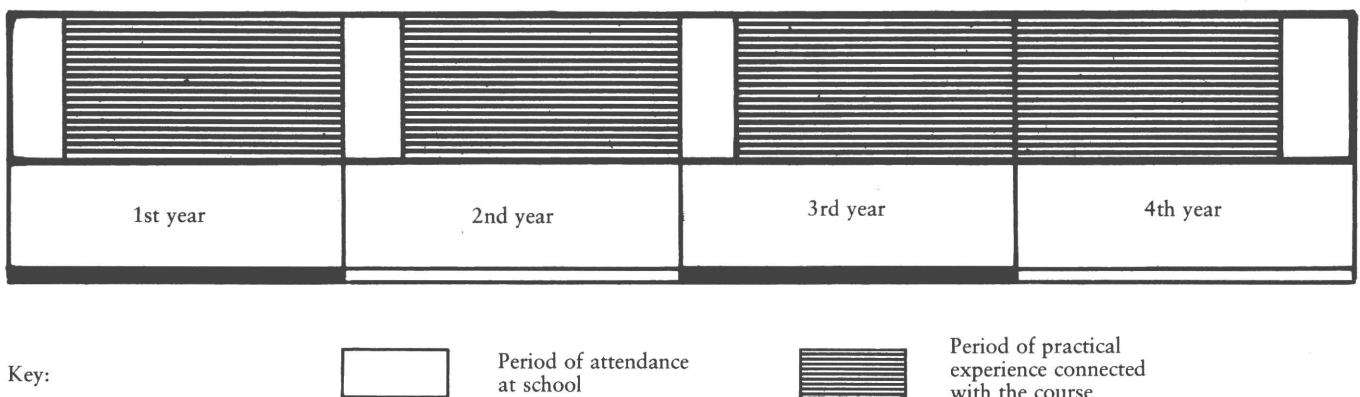
This is done, for instance, by means of project weeks, in which general instruction is suspended in favour of project work which permits the integration of general subjects and academic subjects in areas connected with the trades which are the object of the instruction. An educational evaluation of the progress made by such project weeks within the food sector is included in the aforementioned research which is being carried out by the RUC (Roskilde University Centre).

A group of researchers which forms part of the State Institution for Teacher Training (Statens erhvervspædagogiske læreruddannelse) is also working on problems associated with the content of the basic vocational training courses this year.

As far as the training courses for semi-skilled workers are concerned, it would in a way be dishonest to include them among those courses which involve alternating periods of school and practical experience, since these are in fact short, modular, industry-oriented school courses which are interspersed with actual periods of work. These courses usually start with a rather more general basic course, followed by specialized courses of the kind illustrated in Fig. 6.

The duration of each course is normally from three to five weeks, combined to-

Fig. 4: Basic diagram of apprentice courses within the area of industry and the crafts (cf. the Law of 2. 10. 56)



gether to give an overall course of a total length of about half a year; courses are frequently separated by longer periods of work.

A range of other, trade-oriented courses also involves alternating periods of attendance at school and practical experience, as may be seen from the survey contained in Fig. 3. The reader's attention is also drawn to the laws referred to in this survey.

#### Teachers and applicants for training

The following survey of teachers and applicants for vocational training is divided up into three areas:

- teachers' qualifications;
- applicants' qualifications;
- teacher/student cooperation.

#### Teachers' qualifications

The recruitment of vocational training teachers is based on the requirement not only for professional training (as skilled workers, craftsmen, engineers and graduates of universities or establishments of higher education), but also for subsequent professional experience, usually of at least five years. It is normal for a course of academic study to be followed initially, once the new teacher has taken up his post; this course takes the form of a broad theoretical introduction to the subject and lasts for a total of about 400 hours, partly as project work related to the teacher's own specialized area, and partly as an 80-hour programme of practical individual instructional guidance.

On the basis of such an excellent, vocationally oriented, theoretical background, these teachers should be well equipped to relate the content of the course to what the students have learned during their periods of practical experience.

#### Applicants' qualifications

The formal entry requirement for the majority of vocational training courses is the equivalent of nine years' attendance at school. The requirements for the individual courses are outlined in Fig. 3.

Over the years, an increasing trend has been observed in the educational background of the students who have been

accepted for basic vocational training courses; so although the formal entry requirement is for only nine years' schooling, in 1976 between 60 % and 80 % of students had more than ten years' schooling behind them, depending on the main subject area.

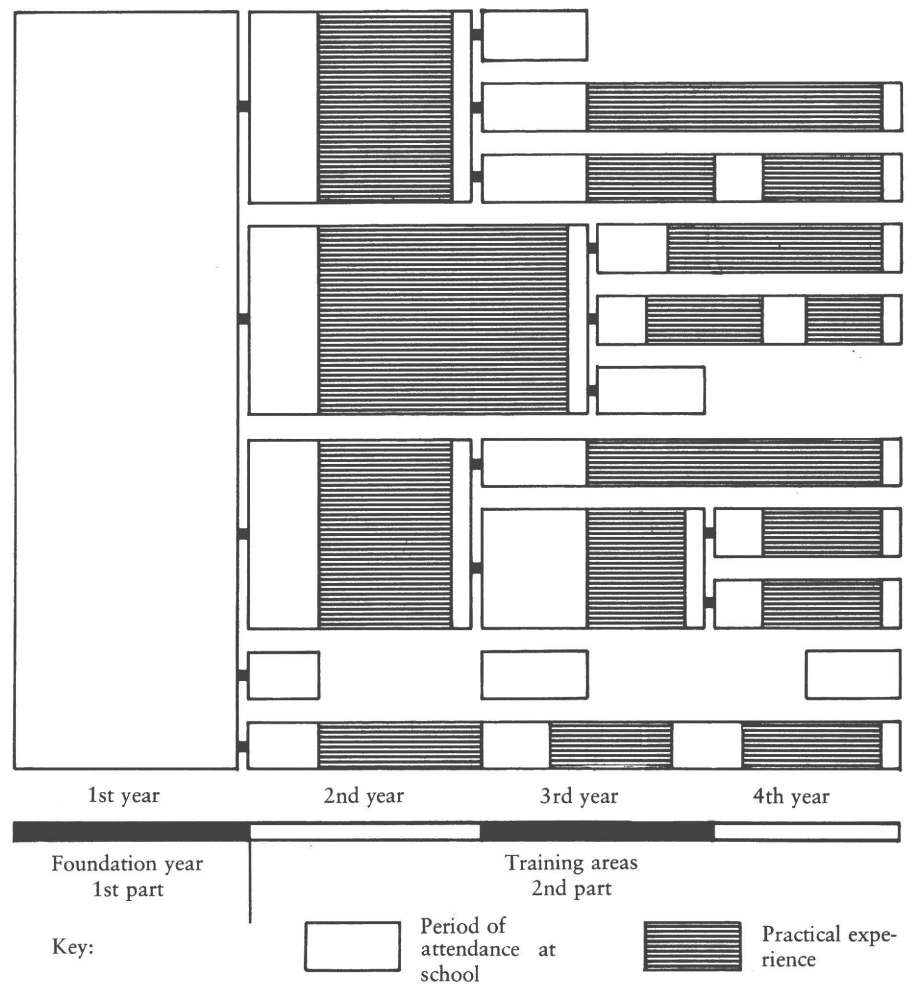
This trend has continued to the point at which, today, a large proportion of applicants for training courses in the areas of basic vocational training and apprenticeships have already passed the higher preparatory examination ('HF') or the school leaving certificate (studenter examen). This trend, which has also been observed in other areas of education and work in recent years, is known as the 'cuckoo effect', since it is the large, strong 'young cuckoos' with their superior educational background who push the less well-equipped 'chicks' out

of the 'nest', which is represented by the place, at which further education is provided, or at which one gains one's livelihood.

Whereas it is quite easy to monitor the development trend in relation to formal entry requirements for applicants for the different training courses by statistical means, the analysis of the requirements in a wider context calls for much deeper investigation.

Present research findings contain only a few data which are able to shed light upon, for instance, the entry requirements for students on basic vocational training courses in respect of their socio-economic background, their interests and their view of society. These factors are included in the research programme which is currently being carried

Fig. 5: Basic diagram of the vocational training courses (cf. the Law of 8. 6. 1977)





out by the Roskilde University Centre (RUC) in relation to the basic vocational training courses which are available within the main subject area-food.

### Teacher/student cooperation

Within the Danish educational system, the teacher is usually free to choose the method of instruction, irrespective of the subject area or the level of instruction. This freedom has in fact been restricted to some extent by the developments which have taken place in recent years. For example, the common foundation year of the vocational training courses now includes project-based, problem-oriented instruction whose progress is controlled jointly by the teachers and the participants. This change now places high demands on both teachers and pupils.

As far as the teachers are concerned, this problem is a central topic in basic teacher training, and is also included on the refresher courses.

However, experience gained from basic vocational training courses in recent years indicates that students experience greater difficulty in adapting to a course which demands the exercise of co-responsibility and initiative over and above that to which they have been accustomed in their previous education and upbringing.

### Training and practical experience within commercial firms

Those job-oriented courses in Denmark which involve alternate periods of attendance at school and practical experience in industry are usually structured and organized in such a way that everything which may be classed as formal instruction, whether it be theoretical or practical in nature, is included in the periods of attendance at school, whereas the periods spent in industry are concerned exclusively with the gaining of practical experience.

#### Organization and financing of the periods of practical experience

The aforementioned structuring of the courses so that all formal instruction is given in school requires that those

schools which provide technical courses shall have workshop facilities which are equivalent to those found within the industries upon which the courses are based. A significant proportion of the specific instruction is given in these workshops and combines the theoretical and practical aspects of the subject.

Thus the periods spent in industry simply consist of pure practical experience, including instruction and training at the place of work, but without any formal teaching instruction. By organizing the courses in this way, the possibility of the employer directly influencing the course is reduced, and it will be much easier to achieve coordination between the courses themselves; this may, however, give rise to difficulties when it comes to the need to link together the experience gained at school and in industry before embarking on the actual course of study. Attempts have been made to counter this trend

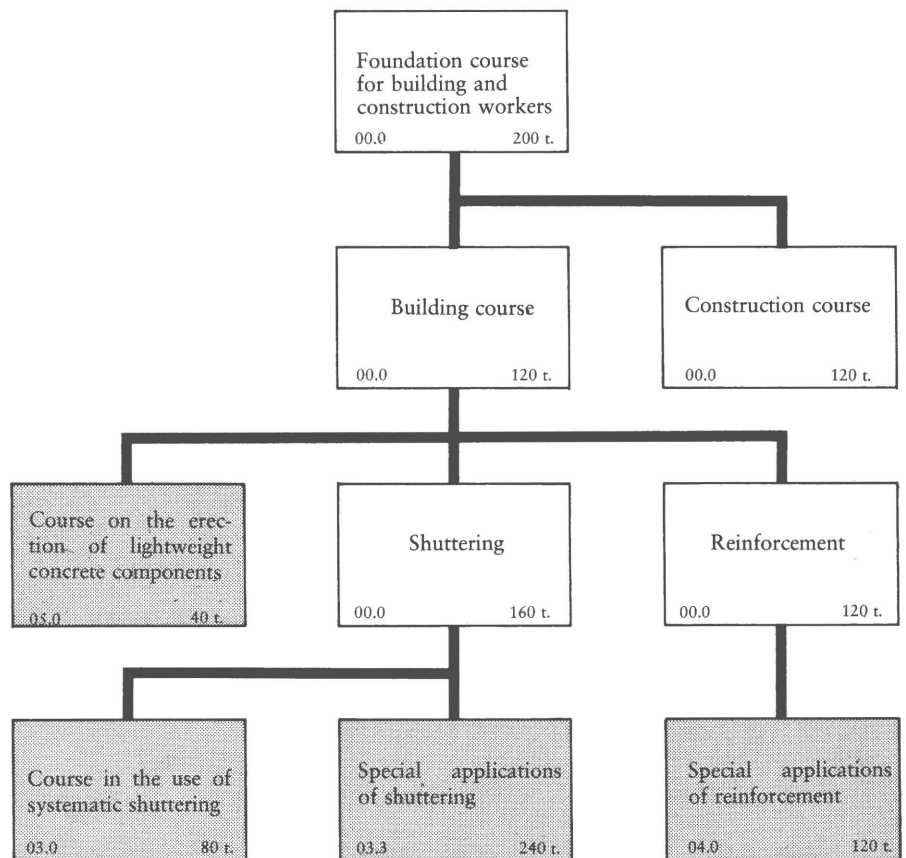
towards the dissociation of the control mechanisms, as shown below.

Employers in Denmark are able to choose freely whether or not they wish to accept students for practical training. This situation gives rise to a degree of uncertainty which is most unfortunate, both from the point of view of the course planners and the individual course applicants.

In the case of the traditional apprenticeship courses, indentures are signed at the very start of the course between the employer and the apprentice and his parent or guardian where the apprentice is under 18 years of age. The first few months of the introductory period of practical experience (see Fig. 4 Basic diagram of apprentice courses) constitute a probationary period during which the contract may be terminated by either party without any financial penalty being

Fig. 6: Basic diagram of training courses for semi-skilled workers  
Example: Courses for building workers (cf. Official Gazette No 271 of 2. 6. 71)

Diagram of training courses for building workers (new structure)



incurred. Once this probationary period is over, stricter rules apply to the termination of the indentures. On such courses, the periods of practical experience account for by far the greater proportion of the total duration of the course. As has already been mentioned, the periods of practical experience which form part of the traditional apprenticeship course are financed by means of a minimum wage, which is paid by the employer for the entire duration of the course, during both the periods of practical experience and the periods of attendance at school, of which the level is agreed between the employer's and the employee's organizations for the industrial sector concerned. In the case of those subject areas for which no such agreement exists, the trade organizations will appoint a special board to set the level of the wage.

The problem of finding practical training places for the basic vocational training courses does not occur until after the end of the foundation year, but even when help is provided by the schools, there will always be the occasional student who will have to find a practical training place for himself; this has given rise to varying degrees of problems, depending on the industrial sector concerned.

This uncertainty which surrounds the possibility of finding practical training places tends to offset the advantages of the widely-based foundation year and the delayed requirement for choosing a specific trade: the students start looking for a practical training place as early as possible during their foundation year, and if they succeed in finding one they tend to lose a good deal of the motivation for the remaining broad-based introductory programme in the main subject area concerned, and instead develop a wish to progress more rapidly to the more practical and trade-oriented part of the course.

The agreement between the student and the company in which he is to spend his second period of practical experience must be in written form and must contain details of the wage which the company is to pay the student during the practical period, as well as during the period of attendance at school which forms part of the second part of the course. As in the case of the traditional apprenticeship courses, the size of this wage is laid down by agreement.

In order to encourage employers to make available a number of practical training

places, a law relating to the payment of students by employers was introduced in conjunction with the law relating to basic vocational training courses, pursuant to which the companies which provide the training are paid a subsidy in respect of part of the wages paid to students on basic vocational training courses during their periods of attendance at school. The means of financing this subsidy are provided by a collective levy paid by all employers in the form of an agreed sum per man-hour per employee. This levy is also payable by employees who do not take students for practical training. The student subsidy is also paid to employers who have taken on students who are receiving training under the law relating to apprentices.

#### *Programmes and content of the periods of practical experience*

A minimum and maximum period of apprenticeship is laid down by the trade committees (see below) in the case of the apprenticeship courses. The law relating to apprentices stipulates that the apprentice master shall be responsible for ensuring that the apprentice learns the trade in respect of which he has been accepted for training in as much detail as possible. The trade committees concerned in each subject area shall be involved in determining the conditions under which apprentices may be accepted by each individual company.

The duration of the periods of practical experience may vary from course to course, but in each case the alternation between practical experience and attendance at school indicated in the basic diagram contained in Fig. 4 is maintained.

As far as the basic vocational training courses are concerned, great differences are found in the length of the periods of practical experience between the various main subject areas and the individual subjects contained within them, as may be seen from Fig. 5. The aim of these periods of practical experience is to teach practical skills, to give experience within the areas which have been taught during the periods of attendance at school and to provide students with experience of the working environment.

The law relating to basic vocational training also provides for courses to be given in which the periods of practical experience in industry are replaced en-

tirely by instruction received in technical colleges. However, the view is widely held both within the Ministry of Education and on both sides of the labour market that vocational training of this kind which is based purely on instruction received in technical colleges should only be available under exceptional circumstances, since it is regarded as important to provide students with the opportunity to include actual working experience in their training courses.

#### *Masters and pupils*

In the case of both apprenticeship courses and basic vocational training courses, the teacher/student relationship which exists during the periods of practical experience is covered by legislation in respect of the rights and obligations which are involved. The law relating to apprentices stipulates that the apprentice shall assist the apprentice master in his work within the company wherever his ability and skill enable him to do so. Nevertheless, the apprentice master may only use the apprentice on work which is not related to his training under exceptional circumstances, and may not require him to do work which could be damaging to his health.

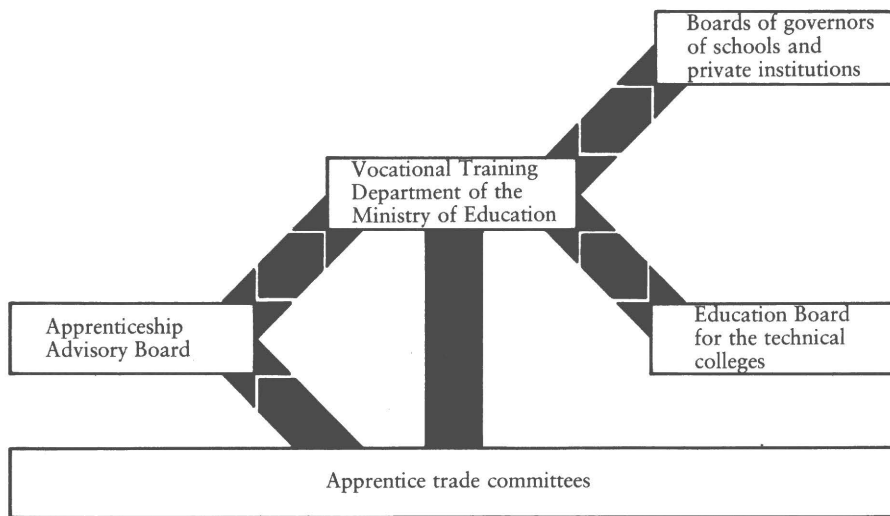
### **Coordination of the instruction received at school and on the practical experience courses**

The administration of the vocational training courses, including the coordination of the periods of attendance at school and of practical experience in industry, are the responsibility of somewhat complicated bodies, in which the role played by the various boards and committees may vary between one course and another.

#### *Structure and function of the coordination*

Apprenticeship courses come under the Vocational Training Department of the Ministry of Education, which has reporting to it an Apprenticeship Advisory Board (see Fig. 7) on which employers and employees are equally represented, and which also contains appointed representatives from the Ministries of Commerce, Labour and Education. This Apprenticeship Advisory Board advises

Fig. 7: Administration of apprenticeship training courses



the ministries on matters which are submitted by them for discussion, and may involve itself on its own initiative in matters within the scope of the law relating to apprentices. The Board has a variety of administrative functions, and acts as the superior body to the 34 apprentice trade committees.

Each of these committees is made up of representatives from a single trade or from a single sector of industry, who are elected by the employers' and employees' organizations. These committees advise the ministries and the Apprenticeship Advisory Board on all matters relating to the training and patronage of apprentices.

The technical colleges are private institutions, and the Education Board represents the colleges as a whole, reporting to the Ministry of Education. In addition to the above, there is also direct contact between the Ministry of Education and the boards of governors of the individual technical colleges or colleges of commerce through the medium of representatives of trade and industry, of local authorities and of local employees' organizations.

With the introduction of basic vocational training courses, the State now has a greater direct influence on the instruction which is provided during the periods of attendance at school. However, just as in

the case of the apprenticeship courses, the influence of the State on the content of the periods of practical experience is quite limited as far as basic vocational training is concerned. The administration has not remained straightforward (see Fig. 8) and it is typical of this system that decisions frequently take a very long time to be made.

The Vocational Training Board reports to the Apprenticeship Advisory Board in respect of operational matters, in spite of the fact that it does not act as the superior body for the trade committees, since one additional level is found in the system for the administration of the basic vocational training courses: the vocational training committees, each of which acts in a coordinating capacity on behalf of its own area of responsibility for the trade committees, and as such has direct contact with the Ministry of Education.

In the case of both apprentice training courses and basic vocational training courses, direct contact with the places at which practical experience is provided is maintained by the trade committee, which thus has a coordinating function between industry and the educational institutions. The trade committee has the following specific duties within the field of basic vocational training:

- to approve the places at which practical experience is to be provided;
- to authorize the termination or the extension of the period of practical experience;
- to provide the vocational training committees with its views on:
  - the content and structure of the individual courses;
  - guidelines to be laid down in respect of the approval of the places at which practical experience is to be provided;
  - utilization of resources within any particular training area;
  - entry requirements;
- to look after the general interests of the individual subject areas.

The courses provided for semi-skilled workers have their own system of administration (see Fig. 9), which resembles the system for the apprenticeship courses in the way in which it is structured, but which in this case falls under the Ministry of Labour rather than under the Ministry of Education.

All the other types of vocational training course have similar systems of administration, each of which falls under the particular ministry which is responsible for the individual courses.

Fig. 8: Administration of basic teacher training courses

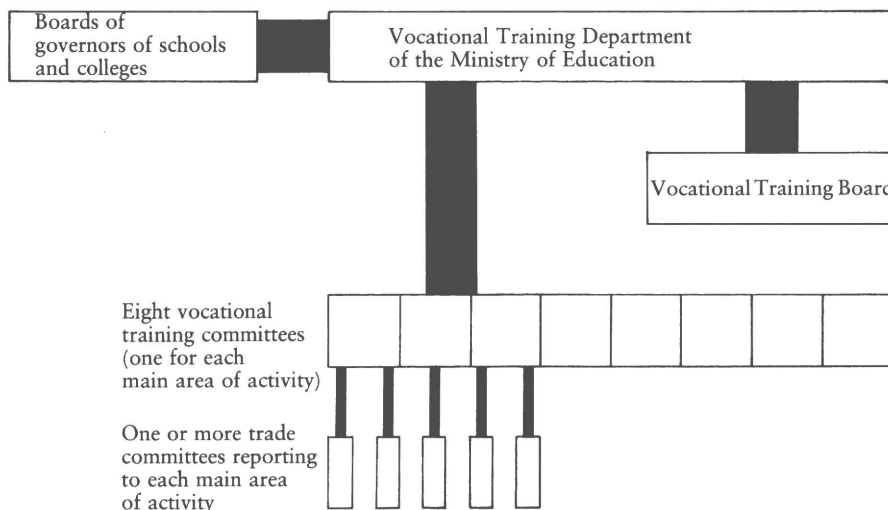
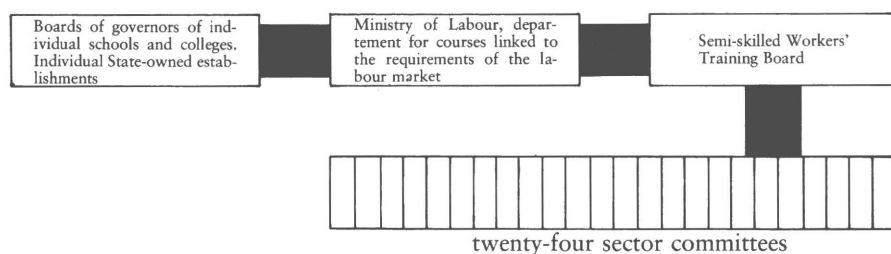


Fig. 9: Administration of courses for semi-skilled workers



### Distribution of authority

The formal distribution of authority within the organizational systems by which the different courses are administered is set out above, from which it may be seen to what extent the employers' and employees' organizations are able to influence matters through the various boards and committees which exist. This is a feature which constitutes a distinct difference between vocational training courses and the more general school courses.

In this way the courses themselves are structured quite rigidly, but there still remains the question of the level of authority which is actually enjoyed by the parties involved in the everyday educational situation, i.e. the teachers and the pupils.

The following description of the conditions as they exist within the area of vocational training courses is provided simply as an example. As far as the general subjects are concerned, only outline requirements are laid down for the foundation year, with the result that the students are given every opportunity to decide for themselves the content of the course, both in respect of the syllabus and the teaching method. The situation is rather different, however, in the case of the specific subject areas, both during the foundation year and in the subsequent Part 2: these subjects, at any rate formally, are subject to strict controls in respect of their content, of a type which are only found elsewhere within the Danish educational system in courses of short duration, such as those organized for semiskilled workers.

This control is carried out with the help of so-called 'control materials', which are a series of forms which define the content of the course right down to subsidiary subjects and key words to be dealt with in the individual lessons of the course. The integration of the general

and specific subjects proved difficult wherever this system was adhered to in practice, which has resulted in a trend towards less rigorous controls which in turn has come closer to the principles which apply generally throughout the Danish educational system.

The situation which surrounds the courses closely resembles the situation surrounding industry: the requirement for qualifications includes on the one hand the general ability to function as a worker and a member of society within our present society in accordance with the pattern shown initially in the municipal public school ('folkeskole') and later in the context of the general subjects taught as part of further vocational training, and on the other hand specific, job-oriented vocational qualifications; these requirements are reflected in the structuring of the specific subjects, which are divided up right down to the level of individual concrete details.

A group of teachers concerned with a variety of vocational training courses indicated in an article which was published in 'Uddannelse' (Education) that it appears to be necessary to incorporate a wider range of educational and sociological objectives into the control system than is the case at present. It was felt that a change of this kind would lead partly to a shift in the composition, and the area of authority, of the bodies responsible for the administration and coordination of the courses, and partly to giving the applicants for training a greater real say and greater real responsibility.

### Development trends

The trends which have been seen in the labour market with the polarization of the qualification requirements have manifested themselves in the educational system through on the one hand the setting up of new, short-duration courses

for semi-skilled workers, and on the other hand the extension of the normal apprenticeship and basic vocational training.

In addition to this, however, development trends which have taken place in Denmark over recent years in connection with vocational training courses have also been characterized by the urgent attempts being made to reduce unemployment amongst the young.

### Initiatives generated by unemployment amongst the young – financing and structure

Since 1975 there has been close cooperation between the Ministry of Labour and the Ministry of Education in implementing specific measures to combat unemployment amongst the young, including courses for semi-skilled workers, job- and training-oriented courses for young unemployed persons and special courses at technical colleges and colleges of commerce. An employment plan for the period 1978–80 was worked out in 1977, and the table contained in Fig. 10 shows the distribution of the grant which was approved in connection with this plan to combat unemployment amongst the young. As may be seen from the nature of the distribution, a very considerable proportion of the responsibility is placed on the county councils and municipal authorities.

A survey of the measures to combat unemployment amongst the young which directly touch upon the field of vocational training may be seen in Fig. 11. A report issued jointly by the Ministries of Labour and Education in February 1979 goes into greater detail in respect of the conditions relating to the various measures. One general feature is the search for new ways of integrating theory and practice within the training courses. Of course there is as yet no means of actually evaluating these initiatives, but it must be pointed out that, as a means of encouragement, approval has been given for the financial means to be provided for an evaluation and assessment programme to be conducted in conjunction with the range of different courses which are organized as part of the employment plan. A number of research institutions are involved in this work, for which 0.5 million DKR were made available in 1978, 1.5 million DKR in 1979 and 1.0 million DKR in 1980. A report concerned with this research pro-

**Fig. 10: Distribution of the grant for combating unemployment amongst the young; in millions of DKR over a series of financial years**

	1977-78	1978 (1)	1979	1980
Ministry of Education	11.2	39.3	63.4	64.4
Ministry of Labour	35.3	61.2	78.1	78.1
Municipal authorities	50.8	152.4	203.2	203.2
County councils	25.4	76.2	101.6	101.6
Total	122.7	329.1	446.3	447.3

<sup>1</sup> The 1978 financial year contains only three-quarters due to a realignment of the financial year with the calendar year.

gramme was published by the Ministry of Education in September 1978. These efforts are directed principally towards that group of young people who do not continue with a course of further education after finishing the basic municipal public school course ('folkeskole'), since it has become clear that this is the group which suffers most as a result of the unemployment crisis. Thus about half the total number of young unemployed persons is made up of those who have no educational qualifications beyond the basic municipal public school course ('folkeskole'). Many of these young people are not particularly motivated to embark upon one of the existing courses. Their real need is to escape from an environment of teaching and school and to start in what is for them a meaningful job.

Against this background, it is understandable that there is special interest for those measures which have to do with 'combined education and production programmes' (point 4 in the summary contained in Fig. 11). The following section portrays these experimental courses as concrete examples of the initiatives taken under the employment plan.

#### *Combined programmes of instruction and production*

Projects relating to combined programmes of instruction and production have been established in several places in Denmark. These go completely against the established principles of youth education and are being monitored with interest by those concerned with educational planning. A report published by the Ministry of Education in April 1978 discusses the reasons behind these experiments and describes a variety of concrete projects. A more general treatment

of the subject may be found in a publication by the 'Selskabet for Samfundsdebat' (the Society for Social Debate) entitled *Sortbogen om ungdomsarbejdsløsheden - og dens bekæmpelse* (A discussion of the unemployment situation among young people - and ways of combating it, 1979); this was edited by its author, Tørk Haxthausen, and the former Minister of Education, the radical politician K. Helveg Petersen, who is now a consultant to the Ministry of Education on international matters.

The principles behind this form of education are referred to as 'the third form of education' in the report issued by the Ministry of Education. This name is intended to convey the fact that this form of education is not directed at that group of young people which chooses courses which prepare them for further academic study, nor is it directed at those who embark upon basic vocational training courses, but rather at a third category which has no educational qualifications beyond the basic municipal public school course ('folkeskole').

It must be stated that this third form of education is intended to provide young people with the opportunity to receive practical training, and is structured around the driving force and the enthusiasm which is found in the majority of young people.

It is preferable for the idea of the school and the educational establishment to be played down as far as possible, and for the idea of collective responsibility for the advancement of the course to be developed, as well as for emphasis to be placed on the idea of interdependence and of the young people being free to develop under their own conditions.

This third form of education is built to a very large extent upon the experiences which have been gained in recent years in the Danish continuation schools ('efterskole'), including the Tvind schools and the Åbæk continuation school, which were described in an earlier report published by the 'Selskabet for Samfundsdebat' (the Society for Social Debate) entitled *Ungdomsarbejdsløshed - en udfordring til nytænkning* (A call for a new approach), 1977, this was also edited by K. Helveg Petersen.

#### *Outline of prospects for the future*

The latest report to appear from the 'Selskabet for Samfundsdebat' (the Society for Social Debate) contains further discussion of the projects which have been started under this third form of education. The point is made that even if these projects are regarded as an interesting new development, they should still be included as part of a wider change in policy if they are to have any significant effect on developments taking place within society.

The report goes on to describe the way in which such projects could be developed in the longer term into a new means of solving sociological problems of a kind which our present society is not in a position to solve in a satisfactory fashion.

A distinction is drawn between two types of project: 'development centres', which have a wide range of activities right from the start and which can deal with any problems which arise on an on-going basis, and 'special projects', which are set up specifically to solve actual problems related to work or research.

A development centre may be defined as a combined instruction and production project, whose aim is to achieve the highest possible level of integration within the local community through the efforts of the participants. The following are typical aims for such centres: care of the aged, visiting school care, office assistant for organizations and small, independent companies, building restoration work, preservation of the countryside and waste recycling.

Although these may appear to be rather basic occupations, they each take on a more far-reaching significance when they are put into perspective within a broader context, by means of which the de-

Fig. 11: Measures to counter unemployment amongst young people directly related to vocational training courses (cf. Employment Plan for 1978–80)

Activity	Regulations	Area	Subsidies/costs
1. Special practical experience and teaching places (a) Subsidies for special practical experience and teaching places within private companies (b) County councils and local authorities (own administrations and institutions) (c) the State.	Circular from the Ministry of Education dated 1 February 1979, Sections 1.1 and 1.3.  Circular from the Ministry of Education dated 1 February 1979, Sections 1.2 and 1.3.  As has been the practice until now, cf. circular from the Ministry of Education dated 24 November 1976 (III, 6).	Basic vocational training courses, apprenticeship courses and other vocational courses. The Ministry of Education may approve courses based on officially approved practice.	Subsidy of 11 DKR per man-hour, but with a maximum of 16 000 DKR for any one workforce. Wage subsidies. County councils may provide 100 % subsidies to local authorities. Wage subsidies
2. Courses run by the county council, etc.	Circular from the Ministry of Education dated 1 February 1979 Section 2.	Courses on – commercial subjects – subjects taught in other kinds of school, including technical colleges – combinations of various kinds of instruction, including work programmes.	Educational grants, books, materials, examinations, hire of premises and equipment, as well as definition of requirements, advertising and provision of other information. Transport of pupils.
3. Extra courses at colleges of commerce, etc.	The law relating to the approval of grants for 1977–78, I. ('Til-lagsbevillingslov').	Courses on – Higher Commercial Examination (about 700 students per year) – EDP assistant (about 120 students per year) – special courses for unemployed young persons (about 500 students on an annual basis).	Running costs
4. Combined programmes of instruction and production.	Circular from the Ministry of Education dated 15 September 1978.	Combined programmes of instruction and production related to the selling of goods and services.	Grants for teachers' and instructors' salaries, materials, hire of premises, transport, board and lodging of students.
5. Vocational preparation courses for young people (EIFU).	Department for courses linked to the requirements of the labour market.	Courses for young people who are unable to obtain specific, subject-oriented instruction. To be arranged locally.	Running costs and allowances.
6. Subsidies for local training projects, etc.	Circular dated 13 January 1978 relating to support for local training projects, etc.	Includes subsidies for – local projects – nationwide development of ideas and experiences – groups which are threatened in some special way – experimental and development projects.	Operating subsidies. In certain cases also grants towards the establishment, board and lodging and spending money for participants.

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velopment centre is able to evaluate the changes which are taking place within the community and to suggest those activities which should be encouraged so that a specific contribution may be made to create changes which will be of use to the developments.

Similarly, a special project is a combined instruction and production project which includes community services which have been selected from a list of priorities

drawn up by the government, and which is kept up to date at all times.

Finally, it should be mentioned that the report issued by the 'Selskabet for Samfundsdebat' (the Society for Social Debate) does not limit itself simply to the subject of the education of young people. It must be pointed out that even by providing training which places great emphasis on good behaviour and discipline

at work, one will still not be able to replace that which the young people have been denied through growing up in schools and homes in which practical work is reduced to a minimum. Consequently, far-reaching changes are required to the whole educational system so that the interdependence of theory and practice and of education and work may occupy a significant position in the system by which our children are brought up from their very earliest years.

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# Linking work and training for young persons in the Community

*Communication from the Commission to the Council*

## Mandate

1. The Paris meeting of Heads of State and Government in March 1979 asked the Council of Ministers to study linked work and training systems<sup>1</sup> as 'one of the measures ... which should contribute ... to the improvement of the employment situation' and asked for 'concrete action'. It described such systems as 'the linking of practical training obtained by the exercise of a vocational activity at the place of work with theoretical training obtained in a training service, organization or establishment'.

2. The Council of Ministers of Employment and Social Affairs in May 1979 considered the development of alternance as one of a number of elements in an overall policy aimed at the sharing of the available volume of work. It asked the Commission to put forward proposals for Community action in this field. While this mandate also demands a full examination of the potential contribution of 'alternance' as a complementary element in policies for improving the employment situation of all groups in the labour force, the Commission has decided to limit its initial proposals to 'alternance'-based training for young people. Therefore, the use of the word 'alternance' in this document is confined to its application to the improvement of the insertion of young people into the labour market.

3. At its meetings in October 1978 and April 1979 the Consultative Committee for Vocational Training considered alternance from a training and long-term employability perspective and expressed interest in the Commission's proposals.

This Communication makes a number of proposals for Community action in this field as requested by the Council of Ministers. It is in line with the previous

Communication on youth employment of 17 October 1977 which emphasized the need both to create and promote employment for young persons on the one hand and to adjust training systems to changing needs on the other. The present initiative is concerned principally with improving training opportunities for young persons. It has three objectives:

(a) Improving the employability of young persons by improving their opportunities to obtain training and qualifications.

(b) Reducing the current high levels of youth unemployment by encouraging the substitution of viable alternatives to full-time employment in the perspective of a better management of worktime.

(c) Providing Community support for the reform and modernization of training provision in the Member States. The initiative will hence contribute both to a better integration between working time and training and to the continuing need to requalify and update the labour force.

## Diagnosis

4. The Commission has already at various times presented its analysis of the persistent problem of youth unemployment and of the related problem of qualitative mismatch on the labour market. It confines itself here to reiterating that the present difficulties are reflected not only in the large number of young unemployed persons but also by the gaps between the training given, the characteristics of the young persons and the profiles of the jobs offered. There is no sign in the diminution in the high level of youth unemployment in the Community as Table 1 shows.

The Community Labour Force Sample Survey of spring 1977 showed that young people (14-24) accounted for two and a half times the unemployment which one would expect from their share of the labour force. Unemployment is concentrated on the younger age group (14-19) where it is three times the level one would expect from their share of the labour force. For the older group (20-24) it is twice the level.

5. The latest estimates for the level of economic growth in the Community suggest a growth rate of about 3 % in 1979 and 1980. In view, however, of labour supply prospects it is considered rather unlikely that unemployment can be kept down to its existing level between now and 1980. In the long run growth would need to average 4.5 % per annum from 1979 to 1985 if the level of unemployment is not to worsen in that period. Since young persons suffer disproportionately from unemployment, policies must be developed by all Member States to facilitate their employment on the basis of an analysis of the working of the labour market and of the training and educational systems.

6. A major element in this analysis is that a substantial proportion of young persons enter the labour market immediately after reaching the school-leaving age and do not pursue any kind of vocational training. This is illustrated by Table 1 in Annex 2, which shows for example that in the Community as a whole 24 % of the 16-17 age group and 41 % of the 17-18 age group leave school without pursuing any further education or training. In Community countries for which data is available

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<sup>1</sup> The French term 'alternance' is used in this Communication to describe the range of such systems.



there is clear evidence of a relationship between low levels of education/training and unemployment: the poorer a young person's education, the more likely he is to be unemployed (Italy, however, appears to be an exception to this rule). Thus in terms of long-run employability, attention must be paid to the training opportunities available to all young persons, whether or not they happen to be in employment.

7. The duration of unemployment tends to be lower for young persons than for other age groups as Table 2 in Annex 2 shows. The table indicates that about half the number of unemployed young persons have been unemployed for less than three months. It is probable, however, that the duration of unemployment is higher in the four Member States not covered. These data therefore indicate that a comprehensive approach to the complex phenomenon of youth unemployment must take into account the effects on the young person of employment and whether or not such employment is providing a solid basis for future employment and for individual development. They also indicate that policy should not rigidly distinguish between employment and unemployment, but should take into account the fact of a high degree of movement into and out of employment.

## The principles of alternance

8. The concept of alternance is based on the principle of alternating periods of employment and an educational or training activity throughout working life. Alternance has been defined as 'a phase in the process of training associating the exercise of a vocational activity at the place of work with theoretical training obtained in a training service, organiza-

tion or establishment'. It thus implies the development of a pattern of time which is divided between on-the-job activity and other learning activity in a training institution. It necessitates on the one hand the acceptance by employers of on-the-job training coordinated with off-the-job training and on the other hand the adaptation of off-the-job training to the needs of workers on the jobs which they hold. It goes further than the classical combination of theoretical and practical training for it takes as its starting-point the fact that work experience in itself can lead to learning, if appropriately complemented and reinforced. In particular experience of work relationships will promote the gaining of a sense of direction and can help to develop his grasp of social relationships and decision making capacity in an adult environment alongside the acquisition of technical skills.

9. The implementation of a policy of alternance implies the breaking down of barriers between education/training on the one hand and employment on the other. Alternance implies that the end of school or of a training course does not mean an end to learning. Rather it involves a change to a different type of learning on the job with opportunities for further education and training in the course of the working life span.

10. The development of linked work and training must be planned above all in order to promote the employability of young persons and their ability to cope with the world of work. But it can also, and in a subordinate way, take its place in an overall strategy to arrange working time better, especially in two ways: firstly through improving the credibility of training in the eyes of both young persons and of enterprises, it can contribute to reducing the number of persons seeking work – in a much more efficient way than the obligatory prolonga-

tion of compulsory schooling. Secondly, the extension of the possibility of training leave for young employed persons has a similar effect.

However, linking work and training should not be considered as a panacea. It can entrain two opposite risks: the first is that of disguising marginal jobs as training periods, or of using the jobs to obtain a lowly paid workforce. The second risk is that of increasing the costs faced by enterprises – operating already in difficult conditions – through calling for an additional effort from them. These two risks and preoccupations – of which the Commission is fully conscious – call for special precautions especially as concerns the content, supervision and financing of alternance.

11. Clearly, alternance as a principle or method can apply to a wide range of situations, including university level education and the provision of training for adult workers. At this stage, however, the Commission proposes to limit the scope of its action to training for young persons. It believes that the seriousness of their employment situation and the priority accorded to this category by the Council and the Parliament justifies a concentration of resources.

The development of alternance calls for the tackling of issues such as remuneration, the status of trainees, entrance requirements to education or training, compatibility of different qualifications, etc. In its discussions with the Consultative Committee for Vocational Training, the Commission has identified a number of these issues. It appears desirable to ensure that the following principles are observed when drawing up programmes of alternance. The organization of linked systems will vary, particularly as regards financial support. The rights and obligations of the trainees will vary according to the form of the contract of the person involved. For example in a situation regulated by a training-employment contract the financial contribution of the State is usually quite high whereas it is low or zero in most apprenticeship contracts. The following principles are therefore of a general nature and need to be further developed in order to apply to specific situations.

### *The characteristics of the proposed linked system*

12. The linked system of work and training should have the following characteristics:

Table 1: Youth unemployment in the Community

Midyear	Total unemployment (millions)	Unemployed under 25 (millions)	Youth unemployment as % of total unemployment
1974	2.4	0.8	33.3
1976	4.9	1.8	36.7
1978	5.7	2.1	36.8
1979	5.7	2.2	38.5

- (a) It should proceed according to a defined plan linking practical experience obtained at the workplace with theoretical training obtained away from the workplace in a coherent and progressive manner.
- (b) In general at least 20% of the total work-training programme should be spent on training away from the workplace.
- (c) The level of competence achieved as a result of participation in the linked system should be recognized by the relevant public authorities and should qualify the participant to undertake further training in the same area or to transfer to other forms of training or education.

#### *The organization of the linked system*

13. For the purpose of linking effectively work and training close cooperation between those responsible for conditions at the place of work (employers and workers) and those responsible for training away from the workplace (public authorities, chambers of commerce or trade, etc.) is essential. Appropriate arrangements should therefore be made, where they do not already exist, to ensure the organization and coordination of the system.

#### *The financial support of the system*

14. The financial needs of the system fall into three parts: the cost of training carried out at work, the cost of training away from the workplace and the cost of the remuneration paid to the young person. The public authorities and the enterprise should participate jointly in the financing of training. As a general guideline:

- (a) The cost of training carried on at work should fall on the employer. (In some countries levy/grant systems are used to spread the cost of training in a particular sector among the firms in that sector.)
- (b) The cost of training away from the workplace should be a charge on the public authorities.
- (c) The remuneration paid to the young worker by the employer should be related to the minimum wage level in the appropriate age group, adjusted to take account of the time spent on training away from the workplace. The remuneration paid by the public authority should be related to attendance at training and take account of travelling and subsistence expenses.

#### *Design and content of training schemes*

15. In the design of training schemes detailed objectives and programmes should be established at an appropriate level. The approval and assessment of training schemes should be the responsibility of the authority responsible for standards in vocational training.

16. Training schemes should:

- (a) Provide both for the development of the skills required to do the job, and for an appropriate element of polyvalence<sup>1</sup> to help the young workers to adapt to changes in his employment.
- (b) Where possible, be designed to enable trainees to achieve their objective by stages or modules in order to take account of possible interruptions in training caused by circumstances beyond the trainee's control, and so as to enable trainees to exercise a choice among specialist options. Intermediate levels of achievement should be recognized by a certificate.

17. The certification of the level of achievement in a training scheme should be undertaken by, or under, the control of, the public authorities.

#### *Rights and obligations of trainees*

18. The public authorities should define the rights and obligations of trainees in relation to their employers and to the institution undertaking the training away from the workplace. In the case of a contract of employment, the minimum requirements of the contract should be defined by the public authorities after consultation with the representatives of the employers and workers and with the institution undertaking the training away from the workplace or through collective agreements.

#### *Conditions of work and social security*

19. Working conditions of trainees, whether at the place of work or at a training institution, should conform to those laid down by the public authorities and/or collective agreement for workers in the relevant sector and age group. Trainees should be covered by the health and other social security arrangements applicable to workers generally.

## **Alternance in practice**

20. There exist in all Member States arrangements for the linking of work and training. The best established is the apprenticeship system which in many cases corresponds closely to the theoretical concept of alternance discussed above. Day or block release is also widespread in the Member States, sometimes on a compulsory basis. It could provide a second basis for the development of alternance. A number of Member States also have introduced measures to establish training-employment contracts along with measures to create employment and provide work experience. This section reviews practice and experience and suggests guidelines for further development.

#### *Apprenticeship*

21. The essence of an apprenticeship is an agreement between an employer and an apprentice that the employer will provide practical work experience and secure systematic training which will enable the apprentice to achieve recognized status as a skilled worker. Numbers in apprenticeships were fairly steady during the 1960s. The worsening economic outlook caused a decline in the early 1970s, but this was followed by a recovery due to the measures taken to encourage the employment and training of young persons. Specific legislation on apprenticeship was passed in Belgium 1976, the Federal Republic of Germany 1976, Denmark 1977, France 1977, Luxembourg 1979. Table 2 shows the number of apprentices in Member States.

22. The variation in the importance of apprenticeship is due to a number of factors. The 'breadth' of the apprenticeship system in terms of sectors covered is relevant. For example, apprenticeship in Belgium is largely confined to the artisan sector, whereas in the Federal Republic of Germany it extends to almost all sectors of the economy, covering some 455 occupations. Another important factor is the extent to which full-time vocational education is provided as an alternative.

<sup>1</sup> The goal of 'polyvalence' is to provide a sufficiently broad training which gives the young both the necessary theoretical and practical competence to pursue his career in the sector chosen by him, and also to be sufficiently adaptable to change in techniques and organization.

23. Apprenticeships lead, in general, to skilled worker qualifications, though in some Member States they apply to lower levels of skill. They tend to be of long duration (three to four years) although shorter apprenticeships are available in some countries for lower levels of qualification.

24. The degree of centralized control and coordination varies markedly. In the more structured systems (the Federal Republic of Germany, Denmark, the Netherlands) national legislation provides for the prescription of training programmes agreed with the social partners in the specified trades and occupations, as well as for obligatory complementary vocational education off-the-job.

25. A number of Member States (Federal Republic of Germany, Denmark, Ireland) have introduced 'basic vocational training' for the first year of apprenticeships. This year has a more general educational orientation and is related not to one specific occupation but to a broader field. This arrangement has the advantage of deferring specific occupational choice. For example in the Federal Republic of Germany young apprentices in their first year choose one of 13 broad occupational fields, before opting for one of 455 occupations covered by apprenticeship legislation in the second year.

26. Arrangements vary widely between Member States as to the relationships between examinations and qualifications in the general education, the vocational education, and the apprentice system. For example, apprentices in France take the CAP,<sup>1</sup> the qualifying examination of the vocational school system. By contrast

in the Netherlands the apprenticeship examination is also open to external candidates who have not been apprentices. Recent reforms in Luxembourg are intended to make the apprenticeship system run parallel to the full-time vocational school system, leading to identical examinations and qualifications.

27. The apprenticeship system in Italy is encountering severe problems. The facilities and arrangements for complementary vocational education are not being fully used. There were, for example, 770 000 registered apprentices in 1965 of whom 418 000 attended complementary vocational education compared with 670 000 apprentices in 1975 of whom only 12 000 attended complementary vocational education. The continuation of the apprenticeship system will depend on more general decisions about the organization of vocational training in Italy.

28. On account of its established status the apprenticeship system is evidently a major element in the expansion and the development of alternance opportunities. But there appears to be need for modernization in three respects:

- (a) The development of training programmes so as to take account of technological and pedagogical change;
- (b) The establishment of equivalencies between the qualifications obtained through the apprenticeship system and those obtained through the full-time vocational training system;
- (c) The extension of apprenticeship training to a wider range of occupation, particularly in the tertiary sector.

29. Furthermore, the experience of apprenticeship systems should be examined with a view to the application of the apprenticeship formula to other levels of qualification. The Commission's view is that there may be room for the adoption of an apprenticeship approach by new training areas and needs.

#### *Access of young employed persons without training to part-time training*

30. Figures are not available on the extent of day and block release outside the context of apprenticeship training in the Member States. Day release is compulsory in the Federal Republic of Germany, a minimum of eight hours per week for all young workers within 16–18 age group. In the Netherlands two days' training per week is compulsory for 16-year-olds who have left full-time education. In practice only about 70 % of this age group participate, since there are no sanctions to ensure participation.

#### *Combined employment-training contracts (the unemployed)*

31. These contracts have been introduced in some Member States relatively recently as part of the group of measures to deal with youth unemployment. They embody a contract under which the employer undertakes to give employment and provide for the training of a young unemployed person for a limited period of time. In Belgium for example traineeships have been established in firms, the first six months being considered as a training period. In France short 'stages' (120–500 hours' training) are associated with work to assure insertion into working life and long 'stages' (500–2 000 hours training) lead to a qualification. In 1978 almost 40 000 young persons underwent traineeships, 30% of which were long 'stages'.

32. The Commission considers that the experience gained by the operation of these programmes should be studied, as they have a great potential as a starting-point for the linking of work and training for the unemployed. In this same context of provision for the unemployed the operation of job-creation programmes and recruitment subsidies should also be studied with a view to introducing where possible greater elements of alternance. Training-employment con-

Table 2: The incidence of apprenticeship in EEC countries

Country	Year	Total no of apprentices in thousands	Apprentices as % of civil employment
Belgium	1977	24	0.8
Denmark	1976	55	2.2
FR of Germany	1977	1 354	5.2
France	1978	220	1.0
Ireland	1977	17	1.6
Italy	1976	692	3.6
Luxembourg	1977	4	2.7
Netherlands	1977	58	1.15
United Kingdom	1974	463	1.9

<sup>1</sup> Certificat d'Aptitude Professionnelle.

tracts could also be used to develop and promote new types of training, especially in the tertiary sector.

### *Alternance and the need of specific groups*

33. The organization of alternance training would seem to be particularly suitable for the substantial proportion of young persons, identified in Table 1 in Annex 2 who leave school without any qualifications and who find themselves either unemployed or in employment which does not provide any structured training opportunities. The Commission considers that it is essential that programmes be drawn up to deal with the needs of this group. There is first of all the qualitative problem of determining what kind of vocational and educational opportunities can be developed which will motivate and interest the group. Formulae based on classroom work are not likely to succeed.

The group constitutes 24 % of the 16–17-year-olds and 41 % of the 17–18-year-olds on the labour market, i.e. 2½ million young persons in the 16–18 age group alone.

34. The Commission considers that measures should be taken to:

- (a) Introduce legislation or to encourage collective agreements to allow part-time release from employment for young people between 16 and 18 years for the purpose of vocational training and education;
- (b) Introduce financial incentives to encourage people in this age group to participate in training and education programmes;
- (c) Develop and introduce part-time training programmes geared to the needs of the 16–18 age group. These programmes could draw on existing experiences with apprenticeships, day-release and employment-training contracts.

35. The participation rate for these measures should be carefully studied. As a complementary measure provision could be made for an older age group who having left school at 16 have received no further training or qualifications and who now are motivated enough to want to acquire training.

Often the phenomenon of the initial rejection of training because of dissatisfaction with the education system has been

followed by a later return to the training system at a more mature age.

## **Proposals for the development of linked work and training schemes for young people in the Community**

36. Since the worsening of the employment situation in 1973 the Community has taken action in a number of related areas intended to improve the employment opportunities for young people. In July 1975 the Council decided<sup>1</sup> to make available grants from the European Social Fund for the training of young people. In December 1976 the Council and Ministers of Education adopted an action programme<sup>2</sup> including a series of pilot studies on transition from school to work. In July 1977 the Commission issued a Recommendation<sup>3</sup> on the Vocational Preparation of Young People who are unemployed or threatened by unemployment. In November 1978 the Council decided<sup>4</sup> to enlarge the scope of the European Social Fund by making available grants for the support of national schemes to subsidize the recruitment of young people and schemes of job creation.

37. The Commission believes that there should be a further initiative at Community level to develop alternance training. The area is an important one, both in terms of its suitability for certain categories of young persons and its significance for the future development of training systems. It believes that a contribution can be made at a Community level by:

(a) A Resolution of the Council expressing commitment to the development of alternance and establishing objectives at both Member State and Community level. This Resolution could incorporate elements of the guidelines already discussed (paras. 11–19) and provide the basis for concerted actions and the exchange of information and experience (see Annex I).

(b) An examination of the aid which the European Social Fund could give to the development of alternance systems in the Member States.

38. In the European Social Fund, the Community possesses an operational

instrument enabling it to use its own funds to support Community action in the field of alternance training.

Alternance training is already being backed by the Fund in the form of the aid it gives to Member States to finance activities on behalf of certain categories of persons. With regard to young persons in particular, aid is given in two forms: aid to vocational training and aids to recruitment and employment which entered into force on 1 January 1979.

39. In order to follow up the action advocated in this Communication, fresh impetus should be given to the development of alternance training in the context of the Fund. Pending whatever conclusions are drawn from the discussion of this Communication by the various Community bodies, it is already possible to determine three lines of action:

40. (a) The Commission proposes first to improve certain selection criteria adopted in the 'Guidelines for the management of the Social Fund' in such a way that whilst the Regulation itself will not be affected, certain operations introducing alternance training will be given priority assistance by the Fund. Any amendment of the guidelines must initially be aimed at the measures relating to young persons laid down in Council Decision No 75/459/EEC (Young persons).<sup>5</sup> In so doing, the Commission will be taking account of the approach adopted in this Communication which, in particular recommends seeking, through alternance training, fresh methods of providing training for young people who have insufficient qualifications and frequently no motivation towards any particular vocational training.

The guidelines will be amended within the framework of the annual revision of guidelines provided for the Fund Regulations. Because of the deadlines set for the submission of applications for assistance, the amendment could apply only to applications concerning operations to be implemented in 1981.

As the emphasis that will be placed on alternance training in the course of guidance will not in principle directly affect the budget, the budgetary balance between appropriations available for

<sup>1</sup> Council Decision 22 July 1975, OJ L 199 of 30. 7. 1979.

<sup>2</sup> Supplement 12/76 Bull. EC.

<sup>3</sup> OJ L 180.

<sup>4</sup> OJ L 361/3.

<sup>5</sup> OJ L 199 of 30. 7. 1975, page 36.

training measures and those allocated for new aids to recruitment and employment will not be affected.

41. (b) Second, a more flexible interpretation will have to be given to the Council Decision on 'Young persons' which reserves Fund assistance for young persons who are unemployed and 'seeking their first employment'. In practice, this priority tends to be assigned to all assistance granted under that Decision.

Thus, large groups of young persons for whom alternance training would be particularly useful and beneficial are excluded; more especially, these include young persons without qualifications who, having found employment for a certain time, are thrown back onto the labour market. Most of them, owing to their lack of training, seldom have a greater chance of obtaining a relatively steady job than young, untrained persons seeking a first job.

If it were possible to modify the exclusive nature of the present priority ratings by amending the guidelines, the Com-

mission would not rule out the possibility of proposing an amendment to the 'Young persons' Decision itself so that Community aid could also be given to the young unemployed in search of employment, but not their first employment.

42. (c) The third line of action consists in going beyond the usual type of action in order to experiment with more direct ways of speeding up the implementation of the new methods. In certain countries or regions recent legislation encourages the setting-up of alternance training, but for all that, there are neither the capacities nor the structures capable of giving a broader basis to operations founded on the principles advocated by such legislation. In countries where alternance training has existed for a number of years, there may well be a need to renew or extend the system. By means of more specific action focused on a well-defined, small area and hedged with the necessary guarantees as to method, the Social Fund could usefully generate or encourage experiments aimed at a systematic investigation of the best

method of switching to alternance training or of improving it. The experiments would, by demonstration, prepare the way for the dissemination of a method, adapted to specific national, regional or sectoral contexts.

If these demonstration projects are to have any real impact, they will have to be carried out on a sufficiently large scale and cannot therefore be confined to the usual Social Fund studies and pilot schemes which 'involve not more than 30 jobs'.<sup>1</sup> It is necessary to consider how to move beyond these limits, in particular by using and, if need be, adapting, the framework for action defined in the Council Decision (Young persons).

43. The Commission hopes that the lines of action sketched out above will be discussed in detail by the Community institutions. It is prepared to take the necessary steps to implement them and, where appropriate, to submit the requisite proposals.

<sup>1</sup> See Regulation (EEC) No 2396/71, OJ L 249 of 10. 11. 1971, page 54.

## Draft Resolution of the Council on linking work and training

THE COUNCIL OF MINISTERS OF EMPLOYMENT AND SOCIAL AFFAIRS,

considering the employment outlook for young persons who currently constitute a high proportion of the total unemployed and the high proportion of young persons who enter the labour market without any vocational training,

considering that it is advisable to reduce the gaps between school education and the demands of adult life and to encourage more flexible forms of transition from school to working life by promoting the development of vocational training offering young persons whether employed or not, better chances to cope with economic changes,

considering the declaration concerning alternance of the European Council of March 1979 and the conclusions of the Council of the Ministers of Employment and Social Affairs of May 1979,

considering that it is therefore necessary to adapt the vocational training system and that this adaptation can be especially encouraged by developing the linking of work and training, this is the insertion, during the period of transition of working life, of phases of at least six months, during which the young person is able to combine training with practical work experience,

considering that the linking of work and training is especially appropriate in three kinds of situations:

- young persons undergoing apprenticeships or training courses;
- young job seekers benefiting from special measures such as work-training contracts;
- young persons in employment without any vocational training,

takes note of the Communication of the Commission

considers that the linking of work and training should be developed in member countries with the support of the Community according to the following guidelines:

### Action in the Member States

*As concerns the content and the concept of alternance*

Member countries will encourage the development of effective links between training and experience gained at the workplace. This linking implies on the one hand the establishment of coordinated programmes and on the other of structures allowing a close cooperation between those responsible at the workplace (employers and unions) and those responsible for training (public authorities, chambers of commerce, etc.).

Programmes should be drawn up on a modular basis to ensure gradual progress. They shall take account of the need to offer a training base broad enough to meet the demands of technical developments and of future changes in the work of the trainees; they should be planned in relation to the particular characteristics of the category of young persons aimed at. A special effort should be made to develop apprenticeship or training formulae for jobs in the tertiary sector.

In the case of the apprenticeships and of training – employment contracts, at least one-fifth of the overall training – employment programme should, in principle, be given up to training outside the workplace.

*As concerns the control and the recognition of training*

The training programmes should be approved and evaluated by the authorities responsible for vocational training. The levels of competence achieved should be recognized by certificates and facilitate access to further training.

These authorities should also ensure that equivalences are established between the certificates obtained through the different forms of alternance training and those obtained through full-time training in order to promote transfer between the different branches of training.

*As concerns remuneration and financial support*

Member States will see to it that the remuneration or allowances associated with the different systems of linked work and training should be established at appropriate levels, especially in relation to unemployment benefits and minimum wage standards (whether legally deter-

mined or by collective agreement) and should provide effective financial encouragement in order to permit young persons – especially those employed but without any training – to participate in recognized training programmes.

The financial costs resulting from the implementation of linked work and training should be decided between the enterprise and the collectivity according to the arrangements made in each Member State.

*As concerns the status and working conditions of trainees*

Minimum standards should be defined for the different systems of linked work and training either in the framework of collective agreements or by the public authorities after consultation with representatives of employers, workers and training bodies.

In the case of employment-training contracts Member States should as needed make the necessary arrangements so that the changes resulting from the social security payments do not result in an undue penalization of the enterprise where they are working.

For employed young persons without any training Member States will favour the implementation of legislation or of collective agreements which will allow these young persons to have training leave.

### As regards Community support

The Council considers that in order to facilitate the implementation of this Resolution the following actions should be undertaken:

- It invites the Commission to submit proposals on the use of the European Social Fund to aid the efforts of Member States to develop linked work and training systems during the period of insertion into working life.
- It invites the authorities responsible for the implementation of this Resolution to establish cooperation in order to encourage the exchange of experience and to help to resolve the issues raised by the Resolution.
- It invites the Commission to follow the progress made in implementing this Resolution and shall draw up a report during 1981.

## ANNEX 2

Table 1: Activities of the 16–18 age group (1978)

Country	Number of young people 000 s		Full-time education or training %	Part-time education or training %	No education or training %
B	16–17	160	78	3	19
	17–18	160	64	6	30
DK	16–17	75	48	20	32
	17–18	75	29	13	58
D	16–17	1 000	50	35	15
	17–18	970	33	46	21
F	16–17	855	75	10	15
	17–18	845	54	6	40
IRL	16–17	60	60	9	31
	17–18	60	29	4	67
I	16–17	880	55	11	34
	17–18	880	40	9	51
L	16–17	5	50	29	21
	17–18	5	37	19	44
NL	16–17	245	84	6	10
	17–18	240	64	13	23
UK	16–17	900	60	7	33
	17–18	875	32	12	56
EUR 9	16–17	4 180	61	15	24
	17–18	4 110	41	18	41

Source: Estimates made by the European Centre for the Development of Vocational Training (1979).

Table 2: Duration of unemployment by age groups

Member State date	Age group	up to 3 months %	3–6 months %	6–12 months %	over 12 months %
Belgique 6/78	< 25	22.9	14.4	25.4	37.3
	25–50	15.1	10.0	15.8	59.1
	50 +	8.7	6.7	12.5	72.1
	All	16.5	10.9	18.2	54.4
BR Deutschland 9/78	< 25	58.8	17.6	15.6	8.0
	25–50	38.6	18.7	22.1	20.6
	50 +	21.4	15.9	26.3	36.4
	All	40.8	17.8	21.1	20.3
France 12/78	< 25	47.7	30.0	12.6	9.7
	25–50	39.1	20.7	20.2	20.0
	50 +	22.0	14.0	21.0	43.0
	All	40.1	23.7	17.0	19.2
Nederland 11/78	< 25	50.0	24.9	12.1	13.0
	25–50	38.1	16.6	16.4	28.9
	50 +	21.3	10.4	15.8	52.5
	All	41.6	19.7	14.4	24.3
United Kingdom 7/78	< 25	66.7	13.3	11.6	8.4
	25–50	36.5	17.9	19.5	26.1
	50 +	22.5	13.7	20.3	43.5
	All	42.2	15.0	16.1	21.7

Source: National Statistical Offices.

# Council Resolution of 18 December 1979 on linked work and training for young persons<sup>1</sup>

THE COUNCIL OF THE EUROPEAN COMMUNITIES;

Having regard to the Treaty establishing the European Economic Community,

Having regard to the draft resolution submitted by the Commission,

Whereas in general the prospects of employment for young people in the Member States are poor; whereas, furthermore, a significant proportion of the total unemployed are young persons without adequate vocational training;

Whereas more flexible forms of transition from school to working life should be encouraged while at the same time the development of vocational training offering young persons better opportunities for access to the labour market should be promoted;

Whereas the European Council on 12 and 13 March 1979 made a statement including a section on linked work and training and the Council on 15 May 1979 reached conclusions on the matter;

Whereas it is therefore necessary to adapt vocational training systems; whereas such adaptation can be especially encouraged by developing linked work and training, that is to say the inclusion, during the period of transition to working life, of periods combining training and practical work experience;

Whereas the linking of work and training is especially appropriate in three kinds of situation:

- young persons undergoing apprenticeships or post-educational training courses,
- young job-seekers eligible for special training measures to facilitate the in-

tegration of young people into the labour market,

- young workers without adequate vocational training;

Takes note of the communication from the Commission on linking work and training for young persons in the Community;

Considers that the linking of work and training should be developed, in a manner appropriate to the particular situation of each Member State and with Community support, in accordance with the following guidelines:

## Guidelines for the Member States

### *Content and concept of linked work and training*

Member States should encourage the development of effective links between training and experience on the job. These links should involve establishing coordinated programmes and structures making for cooperation between the various bodies responsible.

Such programmes should be established having regard to the need to offer a training base broad enough to meet the demands of technological developments and of foreseeable changes in occupations.

They should be planned in relation to the particular characteristics of the categories of young persons aimed at.

A special effort should be made to broaden the range of occupations offering different forms of linked work and training including apprenticeships.

A suitable minimum period should as a rule be given over to training off the job.

### *Supervision and recognition of training*

If appropriate, training programmes offered should be approved and evaluated by the authorities responsible for vocational training. The levels of competence achieved or the content of the courses completed should facilitate access to further vocational or general training.

The authorities responsible should also endeavour to ensure that linked work and training is in line with full-time training, possibly by the same diplomas being awarded for both, in order to facilitate transfers between different branches of training.

### *Remuneration and financial support*

The Member States consider that where remuneration or allowances are granted for the different forms of linked work and training, they should be established at appropriate levels, particularly in order to facilitate participation by young people therein.

### *Working conditions and social protection*

Member States should ensure that persons participating in the different forms of linked work and training enjoy suitable social protection and protection as regards working conditions within the framework of existing legislation.

The Member States should consider whether training leave may constitute a useful means of encouraging in particular

<sup>1</sup> OJ C 1 of 3 January 1980.



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young workers without training to participate in linked work and training programmes.

## **Guidelines for the Community**

In order to facilitate the implementation of this resolution the Council requests the Commission to:

- examine the conditions under which the European Social Fund might be associated with action by Member States by means of small-scale experimental projects within the spirit of Article 7 of Council Regulation (EEC) No 2396/71 of 8 November 1971 implementing the Council Decision of 1 February 1971 on the reform of the European Social Fund,<sup>1</sup> as amended by Regulation (EEC) No 2893/77,<sup>2</sup> to develop linked work and training during the period of entry into working life,
- monitor the application of this resolution in the Member States with a view to promoting development which is harmonized as far as possible,
- afford Member States all possible technical support to this end,
- promote the exchange of experience gained in this field,
- report to the Council in 1982 on how far this resolution is being applied.

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<sup>1</sup> OJ L 249, 10. 11. 1971, p. 54.

<sup>2</sup> OJ L 337, 27. 12. 1977, p. 1.

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