

HANDBOOK OF TRAINING IN WORKPLACES

**A common approach to the Education and Training Industry
co-operation in the European context**

PREFACE

1. Reference Framework

Since the last enlargement of the EU, most of the 15 member countries have implemented changes in their education and vocational training (VET) systems. One of the main innovations in some countries is the increasing involvement of companies in designing the “curricula” and in developing parts of them: those taking place in companies.

Through intermediate bodies –specifically workers’ and employers’ associations– enterprises have taken part in the design of the guidelines for the current training policy, both initial and continuing. But the development of a part of the training programmes, regardless of the role played by traditional intermediate bodies or others (such as Chambers of Commerce in some countries), falls mainly upon each collaborating company, which will have to face new challenges, both technical and, especially, pedagogical.

It cannot be denied that much has still to be done even in countries with a long tradition in school/industry collaboration. At present the objective is to approach companies with more determination, to ease their tasks and to convince them of the advantages implied in their co-operation, which is certainly expensive and may be bothersome, but which will become very profitable in the medium and long term. Not only the enterprises must be convinced; also the educational system itself, always at risk of closing itself in its academic level. This is why we have decided to write **a training guide with a common content** both for the “academic” teacher (the teacher- tutor) and the “business” teacher (the company tutor, monitor or trainer). Only through the use of the same methodological tools, the production sector and the educational one can get closer, making easier any collaboration approach.

In essence, this is a genuine European idea. And Europe’s own existence has somehow made it possible to prepare this document as it has been partially financed with Leonardo da Vinci Programme funds, in the context of a project called “Training for Trainers 2002”¹. It is precisely in the year 2002 when the new Spanish vocational training system, for instance, will be in full speed,

¹ INC:E/96/1/00018/PI/I.1.1.a/FPI.

ready to welcome the XXIst. century. But the real framework is not only Europe and its future completion or enlargement, but the globalization of the economies and the new technologies increasing relevance.

So we would summarize the **factors of the new framework or scenario** as follows:

- Europe
- Globalization
- New technologies, mainly those of communication

2. Main objective

In 1996, the High Council of Chambers of Commerce of Spain, encouraged by the Spanish Ministry of Education, made an open proposal to other European organisations, in the framework of the Leonardo da Vinci Programme, in order to prepare a pedagogical tool that would bring schools and companies closer together. The **objective**: that the agents of both sectors –education and business- assimilate the need of establishing steady cooperation relations and common working criteria; the **reference framework**: the special value of education/training in the context of the construction of Europe and the globalisation of the national economies; and that, within a process of continued development of the new technologies, specially those related to communication.

The proposal was supported by **ten educational and business organisations** of very different characteristics, from Spain and other European countries (Austria, Italy, Sweden and Island).

The very title of the Project makes clear the precise objective of bringing schools and business closer together: **to train persons** so they can face successfully the training needs of a new **common scene**, although **under different institutional patterns**. Those persons carry out their activities in the educational centres –vocational training teachers- or in the production centres –tutors. Obviously, the training needs of both groups are not the same and, therefore, the educational message passed on each of them must also be different. Nevertheless, some elements are still common.

Our approach is very simple: school-business training cooperation leads to each of both sectors taking greater advantage of the other's potential. But that advantage can only be taken if

common working guidelines –or, at least, rapprochement guidelines- have been established previously so they can act as a “**cooperation link**”.

We summarize these guidelines in a minimum exchange of the “comparative advantages” of each sector in the **common area of knowledge**. What is the main advantage of school compared to business? We think that “pedagogy”, its academic way of passing knowledge on. A common language, a mutual knowing of each other –even at a minimum level- makes easier the necessary cooperation we are aiming at. This is why we advocate for the teaching of **economic concepts at school** and the passing on of **pedagogic elements to companies**.

3. Method

Starting from these considerations, the participants in the Project have set a **continued procedure of discussion, and of contributions** that have gradually taken shape in documents of different contents and scope. It is obvious that each contribution has been influenced by a different institutional situation. But all of them have equally been conditioned by a common reference: **the construction of Europe** and the messages trying to bring schools and business closer together within the training strategy proposed by the Commission’s White Paper on education and training 2.

Contributions coming from largely contrasted **national experiences** linking school and business have been of special value. This is the case of the experiences under the dual system in Austria or the ones recently introduced in Spain, following the educational reform of 1990.

But the most remarkable aspect, from the methodological point of view, has been the **continued contrast** of the documents agreed on by the partners of the Project. This contrast has been achieved in three different spheres:

- The purely **technical sphere**, by gathering the qualified opinion of experts participating in the project and of independent experts.
- The **educational sphere**, by allowing criticism at the administrations and, above all, at the vocational training teachers.

2 European Commission (1996): “Teaching and Learning – Towards the learning society”. Brussels.

- The **business sphere**, by taking into account the assessment of the business training-tutors.

In order to ensure the flow of information, **experimental training sessions** have been carried out. During these sessions, teachers and tutors have brought new ideas and suggestions that have greatly contributed to the final result of the Project.

4. Results

The main result of the Leonardo da Vinci Project “Training for Trainers 2002” has been the “European document” entitled *Handbook of Training in Workplaces*. With regard to Spain, two editions and three territorial adaptations³ of the “**Handbook**” (“*Manual de Formación en Centros de Trabajo*”) have been produced. The European document reduces to the minimum the countries’ information and has more technical contents. Both documents, including the regional versions for Spain, provide a relatively complete approach to the education-business subject from an European and modern point of view.

In the writing of these documents, a considerable pedagogical effort has been made, concerning both the language and the recommendations to the main target groups (vocational education and training teachers and business tutors).

Nevertheless, the result of this effort would be unsatisfactory if the objective is also to make possible educational actions of and for the trainers. For that reason, it has been thought adequate to prepare a complementary tool which, in this case, comes in a less conventional form than the book. This is how the **Trainer’s Guide** was created, in the form of an extensive list of *PowerPoint* “slides” that can either be transferred to “transparencies” or paper, either be used directly.

³ One for the former regions directly managed by the Ministry of Education and Culture (whose 2nd edition has been reviewed so it can be used in any other region), another one for the Canary Islands and a third one for Galicia (this one written in Galician).

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1. OVERVIEW AND OBJECTIVES

The first objective of this Manual is to provide an answer to the widespread needs of the **in-company training modules of Vocational Education and Training (VET)**. The increased number of pupils who attend these cycles (about 100,000 in the school year 1998-99 in Spain, for instance) has brought a parallel increase in the demand of training positions and, therefore, of sufficiently qualified people to monitor the placement programmes, both from the educational side (schools teacher-tutors) and, mainly, from the companies themselves (in-company tutors or trainers). The Manual can be also useful in other training fields, such as **placements of University students** and some activities linked to **continuing training**. In any case, **the core of the Manual is on the relation school-industry or business**, widely considering the “industry and “business”

In the in-company training action, **both teaching and business actors** are involved (including those who act mainly as intermediate nexus, i.e. the Chambers of Commerce). All of them must perform their duties within the same functioning schemes and must share objectives, in the short and in the medium term.

In this sense, the fulfilment of the any initial training process where companies are involved, with the proper quality guarantees, falls within the **short-term goals**. That implies the achievement of the **training programme**, or **placement programme**, agreed upon among the tutors for each pupil in each of the signing company or body.

In a longer term, we should bear in mind that it is specially through the placement process where the exchange of information between the educational sector and the production sector takes place. This exchange goes beyond the placements and their organisation, and is one of the supports that makes the training systems flexible and dynamic.

Ensuring the existence of a **mutual flow of information and dialogue** between schools and companies is, therefore, and **additional objective** of this Manual and this should be in the mind of the actors involved in the placements, regardless of their position or their degree of responsibility in the process.

Obviously, to allow this flow to be fruitful, every actor should know the **framework** for the future professionals and should have a rough idea of what is **implied in terms of training, productivity**

and competitiveness for the enterprises.

This combination of objectives explains the contents of the Manual and its structure, as well as the course it wants to support and the continuous debate it wants to open; however, the short-term objectives, i.e. those more closely related to the specific development of the placements, may receive most of the attention and, probably, most of the concern from the target groups of the document.

The Manual has two parts: the **first part** contains some remarks in reference to the global framework where companies are based and structure their activities, both at the international (Europe and the world) level and at the national or local ones. When describing that framework, the factors that link productivity and training are mentioned, emphasising the companies' training role in the development of the activities usually managed by the educational establishments. The **second part** focuses on the development of the companies' training function within the right frame of responsibilities.

As for the **course content**, it is structured in two sections, the first one is descriptive and the second one is more participatory. The **first section** is divided in two parts: the first one focuses on the placements' general objectives, with an explicit reference to the global and institutional frame of the education-business relation, including some remarks regarding the "joint training" and its reciprocity elements; the second one, deals with the precise development of the placements or, in other words, the training programme within the company, including every stage of it (design, fulfilment and assessment), with specific references to the formal aspects that guarantee the proper operation of the module. The content of the **second section** goes along the same line as the first one, but it has a more participatory approach and contains exchanges of opinions, as well as experiences, between the educational and the production sector.

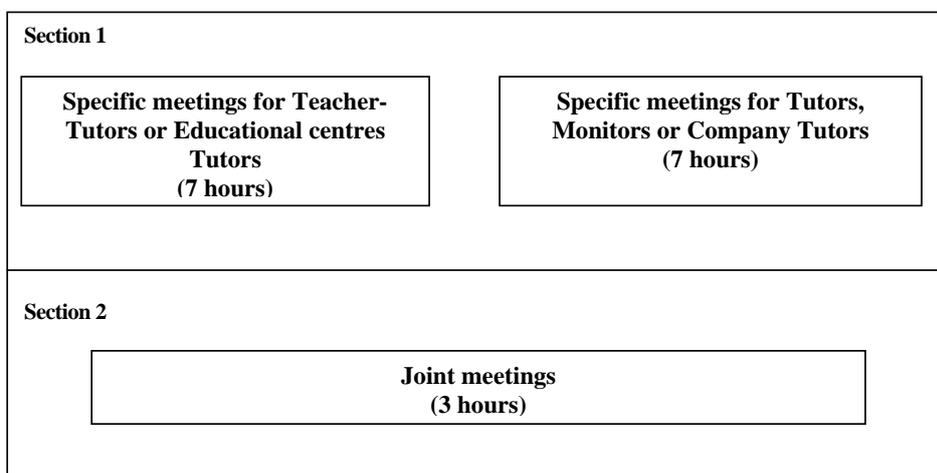
The course's general content is the same for each of the groups to which it is focused: school teachers-tutors and companies' tutors; nevertheless, it is strongly advised that **the first section is taken separately**. It is due to the existence, for each group, of different perceptions and specific needs in regards to training as a whole and the specific features of in-company placements.

Here lies the "**sui generis**" **configuration** of the course (Table 1.1) supported by the Manual. On one hand, this course has a common programme, and on the other, most of its content (70 % approximately) will be developed in a different way depending on the target group involved. Only the final part (the second section) is common and it includes a double objective. First, to revise those

aspects insufficiently dealt with in the individual sessions and, second, to favour the exchange of points of view of each group, as well as a more or less formal contact between them.

Table 1.1

POSSIBLE COURSE CONFIGURATION



With this configuration we have a training action that, for those who will benefit from it, **lasts 10 hours**, although 17 hours will be given. It is thought that a lapse of 10 hours, divided in 3 evening sessions, not necessarily one after the other (it can even be possible to fulfil the programme in one session and a half) enables both groups to achieve the knowledge or skills required to develop the placement module with an acceptable outcome. On the other hand, 10 hours equal to the standard length of a **training credit** that in the future may be acknowledged within an official accreditation (for instance a “**competence certificate**”, although opportunities in the university framework can also be considered). In any case, it seems advisable to produce a formal paper where the fulfilment of the course is acknowledged. That paper should include the signature of an official from an educational body (for instance the corresponding local head) together with the signature of someone involved in the local production network such as the President of the Chamber of Commerce.

This proposal leads us to the programme summarised in the following pages where the more or less precise contents are shown –if necessary, they can be expanded with the help of the suggested didactic or bibliographic materials included-. The aforementioned time division is just a reference for scheduling. Anyway the Trainer’s Guide permits a flexible implementation of the training actions, depending on the target group and the available time.

PART I

**TRAINING
AND
BUSINESS**

FRAMEWORK

2. EDUCATION AND TRAINING IN A CONTEXT OF ECONOMIC GLOBALISATION

2.1 From the European area to the global market

Europe is becoming small

Not long ago Europe (as a wider market) was the economic horizon of any dynamic national enterprise. The European area was considered sufficiently large and out of reach altogether, so that entering it meant a first-rate enterprise success. Not to mention what was implied in the fact of acceding to qualified jobs in competition with other people coming from more advanced training systems.

The topics that identify Europe with progress and modernisation share this idea and it is only now, - when we fully belong to Europe and take part in one of the most powerful economic blocks of the world, which is about to introduce the Euro as a single currency unit-, that we realise how the horizon moves further away endlessly. **Europe is no longer the panacea for the economic dynamism** and one of its most enviable values, the social protection system, could be seriously threatened if the mechanisms that produced it (basically, the constant increase of productivity and employment) are not continuously regenerated.

This view is affected by different factors. Some of them stem from the **technology boom** that took place in more **dynamic blocks**, mainly the USA and Japan; others are due to the **assimilation of advanced productive techniques** with clearly lower wage levels (e.g. China) and others come from a combination of these two (Korea being the most representative case).

Towards the global economy

What does all this mean? That European enterprises -and those from the Southern countries ones especially- have to confront higher challenges in a context where barriers are gradually disappearing and the still persisting obstacles are becoming more permeable to an effective internationalisation of the production and, above all, of the consumption. It does not imply that we are immersed in a global economy and that there is just a single market. We are talking about an apparently unstoppable trend, according to some **tangible facts**. Some of these facts are:

- The fall of the Berlin wall and the following disintegration of the Soviet Block
- The Chinese opening-up
- The almost complete extinction of dictatorships in Latin America
- The European enlargement as well as the completion of the Monetary Union
- The appearance of the Information Society
- The speeding up of innovation processes in every field
- The widespread use of new standards in production, management, etc.

Every sector will be affected

This accumulation of variables, some of them interrelated, behaves as an unavoidable driving force in favour of a world-wide production, although certain sectors, either related to the supply (production) or to the demand (consumption) were thought to have a secure position against outside competition. What a gross assumption! Some familiar examples will be given to prove it.

The first example deals with a strategic sector in some national economies: tourism. The **growth of tourism** has crystallised into increasing activities at the domestic level that in its turn have led to pressures upon the supply of rural tourism. The consumption patterns in the rural areas have been altered by a new demand. Strong imbalances arise that require training actions, especially in the distribution sector and, in general, in all activities related with leisure. If they are not paid attention to, opportunities concerning the socio-economic fabric of any area with a minimum of natural resources will be lost, especially employment. It must be taken into account the extremely strong potential of some European countries in this field that goes along with a severe crisis in the agriculture sector that continues expelling active workforce.

The second example is about new management and production techniques. When large or medium size corporations **subcontract services** or exploit franchises, there is a demand of quality standards in both products and management. Those who do not meet the demands are excluded from the

market. In order to achieve these standards, technical adaptation and important behaviour changes are required.

The public sector will also be concerned

We have so far mentioned a paradigmatic example in the service sector, those activities related to tourism, and another one affecting enterprises working in fields as different as construction, manufacturing or commercial distribution. But, what could be said of those activities strongly linked to the **public sector** like justice or even defence? Two simple remarks: from where do they get their materials? All around the world. How does a “protectionist” purchase policy or a management model of public services that brings “non-competitive” costs upon the Budget (i.e. “deficit generating”) affect the private sector? They reduce the financing (or make it more expensive), i.e. a decrease in competitiveness.

All these examples allow us to correct, to a certain extent, some of the aforementioned sentences regarding the process of economic globalisation. We will no longer talk about trends but about realities.

This reasoning will stop any whim leading to avoid fair contest or to defend the idea that some sectors, due to their special nature, should not be under the control of the market or that they should only be under that control within very strict territorial co-ordinates. That is why when the word “enterprise” is used with the meaning of an entity contributing to the development of a training scheme we do not only think of a public limited company or a limited liability company (usually included in the frame of the industrial sector or specialised in the production of private consumption services) but of any services or goods producing entity. In this definition, we do not consider how it is organised or what is the ultimate destination of the goods produced.

Training is necessary to increase productivity

We are definitely facing an opening-up process of the productive activities. Within this context, **policies of response** must be implemented in order to enhance competitiveness -and, thus, collective welfare- either at the microeconomic level or at the big congregation level (macroeconomic), either in the production sphere or in the consumption side, either inside an individual behaviour strategy or inside a collective one.

The training policy has to play a key role. It demands a close involvement of the traditional teaching approach and the business approach, both from the analytic and from the organisational point of view.

2.2. Towards the information society. Organisational and technical challenges

Information technology and economic globalisation

One of the factors that contributes in the highest degree to the above-mentioned process of economic globalisation is the great development in processing information within a very short time but at a large scale, known in the jargon as **information technology**, with its proper acronym (**IT** or **ICT** if we include the key word “communication”). At present time, it is the symbol of the past decades scientific progress. This is considered to be so because **information technology penetrates every field** and has a direct influence upon our own lives, besides possessing basic elements of feedback. It even affects some demographic variables, some aspects of the social structure, other technological phenomena (e.g. increasing the pace of innovation) and especially the production, distribution and consumption of most goods.

From the simplest economic activity (a payment by credit card) to the most complex one (a purchase or production order of considerable amount with numerous remarks among companies from different countries), a technological informative support is required to obtain strong increases in productivity. This fact alone shows the need to integrate more and more this technology which will have to be known and used by increasingly demanding skilled workers.

Furthermore, the influence of technology on consumers -no matter if they are economically active people or not- makes us talk about what is increasingly known as **the information society** (i.e. information technologically dealt with).

What is the information society?

The information society means that any organisation -enterprises even more-, any individual (those who are active or want to), confronts some demands linked to the **mastering of some skills of data manipulation**, which will let them survive or go forward in a changing environment. We have to bear in mind the never ending mastering of the knowledge and use of new tools or schemes has

peculiar characteristics and they go beyond forcing us to learn **new organisation structures** and to question a certain amount of **habits concerning the own philosophy of production**, from quality to work relations.

We will put the individual aspects aside for a while in order to outline **what is happening in enterprises** and in other services producing groups, in the context of the information society.

How do new technologies affect the organisation of enterprises?

At the organisational level, the technological revolution has strong implications in the **change of the production and management structures in the companies**. These changes mean that traditional uses are left behind (not always in a radical way) and that **new patterns arise**, sometimes in an overwhelming way and sometimes -in most cases- in a gradual way.

The traditional and the emerging organisation structures are compared in Table 2.1. No further remarks are needed but to mention that the emerging organisations are located among the most dynamic corporations and areas and that new patterns are being transferred to small and medium size companies (SMEs) at good pace.

Table 2.1

IMPLICATIONS OF THE TECHNOLOGICAL REVOLUTION FOR THE ORGANISATION OF COMPANIES

Traditional Organisation	Emerging Organisation
Vertical organisation with divisional structures and many hierarchical lines with management focus on leadership and control	Flatter structures with less management levels
Compartmentalisation and separation of functions (management/design/production/marketing)	Integration of R&D, design, production and consumer needs
Organic division of work	Professional division of work with emphasis on flexibility, adaptability and mutual adjustment
Division and specialisation of production tasks for productivity gains	Development of autonomous groups Integration of production, maintenance and management
Centralised management	More functional, project based management and more decision

	power at the lower level
Fully defined tasks with fixed working hours and schedules	New and flexible employment patterns
Task and job stability	Job rotation and mobility
Product and process oriented structures with predominance of tangible assets (hardware)	Knowledge based structures , with predominance of intangible assets (people, research, patents, and licenses)
Management of production flows and by allocation of production resources	Management of information flows and skilled human resources
Acceptance of defects within a low-cost strategy	Quality comes first
Retrospective quality control	Full internal quality strategy with on-line control
Rationalisation by mechanisation or automation of tasks	Total optimisation of processes and production flow
Many identical machines	Multi-purpose and adaptable equipment
Workplace with specialised, single-purpose equipment	Flexible, workplaces contain a full range of different equipment
Mass production for stable demand and extraordinary programs for sporadic demands	Flexible fast response to all demands
Importance of stocks and transport	Few stocks Transport is part of the production process
Productivity gains are achieved and implemented in big steps	Continuous and incremental technological improvements New forms of technology transfer

Source: Based upon IRDAC's 1994 report, **Quality and Relevance**

New management and production techniques

The organisational changes are entwined in the production and management requirements and lead to assimilate the **new techniques** as well as the new formula of relationships in the human resources field. The following points have to be underlined:

- ➔ The widespread use of **just-in-time** production patterns
- ➔ The introduction of more efficient variables regarding costs and productivity in the production process (the best known example would be the so-called "**Lean Management**")
- ➔ **Quality** is considered a strategic objective throughout the whole productive process
- ➔ The rising attention to **environment** in numerous decisions

We must not overlook how the **computing tools** are widely used alongside the process. If they are properly handled in the organisational and real structures they will allow us to analyse as a whole the

numerous variables acting in the decision-making process. But, who uses these tools? The individuals. This is why human resources are important.

2.3. Human resources in the new context. Key competencies

More complex tools demand more training

Not long ago very few people had to use complex tools in their jobs: most of them had enough with a peak, an adjustable spanner or a typewriter (in this case we use the term “simple tool” with care as it is only considered so up to the emergence of electronics). Things have already changed. Most people involved in the production process have to deal with **complex tools** in order to control it, what implies a higher degree of knowledge and skills. Even more, they must show complementary features of professionalism so they can be integrated in the rest of the processes as well as in the objectives of the enterprise.

Changes in job content and work organisation

In order to understand how far-reaching are human resources adapting to the new framework we only have to mention some of the **work changes** that are taking place and fully altering **work organisation** and job content. Let us stress some features of those changes, summarised in Table 2.2.:

- * **Higher degree of autonomy** is demanded in the performance of workers (i.e. wider functional tasks)
- * Technological change needs flexible employment, i.e. **functional mobility**, which is to say that people should be open towards **learning**
- * A **higher quality commitment** is achieved by means of a strengthened continuing **self-control**.
- * Most tasks will be accomplished by small multidisciplinary teams where professional qualifications and status differences will be blurred.

Table 2.2

CHANGES IN JOB CONTENT AND WORK ORGANISATION

Traditional patterns	Emerging patterns
Special knowledge and simple tasks	Multidisciplinary knowledge and complex tasks
Occupational classification based on skill and years of service	Flexible and changing occupations
Status separation between job categories	Blurring of status differences
Individual tasks and recognizable tasks	Team-work
Priority of assembly jobs or narrowly defined jobs	More abstract and intellectual work and more need of self-assessment
Separation of thought and action	Combination of thought and action
Routine work	Anticipation, creativity, decision-making and problem-solving
Low personal advancement	Importance of self-advance and personal training
Skill, ability and speed of manual execution	Emphasis on speed of perception, reaction and intelligent co-ordination
Predominance of physical work, sometimes dangerous and unhealthy	Less use of physical energy and strength. Computer based work
Tangible relationship with products	Interface with products and materials
Power-based work relations	Participating attitude, long term compromises and alternative work relations (via job tenure, sharing dividends, etc)
Pay based on individual productivity	Human resources policies to spur the competence and commitment of workers

Source: based upon IRDAC's 1994 report "Quality and Relevance".

New professional patterns

Occupational changes run along with professional requirement changes. Traditional patterns tend to lose some of their characteristics in favour of the **emerging professional patterns** (Table 2.3.)

Table 2.3

PROFESSIONAL PATTERN CHANGES

Traditional pattern	Emerging pattern
Few skills Comparable and interchangeable qualifications	Multiple and multidisciplinary skills Wide range of skills and qualifications
Predominance of manual skills and gap between manual workers and administrative staff	Predominance of qualified workers: technicians, managers, professionals, and information workers
Lifetime jobs Limited skill advancement through new recruitment	Rapid obsolescence of skills Inadequate recruitment practice Use of advanced training to maximise competence
Limited technological skills Emphasis on specialisation	Greater need of technologists. Technological skills required from everybody. More need for generalists and integrators
Communication and social skills of minor importance	New skill demands for communication and co-operation, problem solving, creativity and flexibility

Source: based upon IRDAC'S 1994 report "Quality and Relevance".

We will mention **some emerging pattern** features:

- The key role of the **new skills**
- **The workers qualifications are closely examined** leading to the exclusion from the market of a higher rate of unskilled workers
- **Numerous skills** become **obsolete** or even disappear
- There is a demand of **technical manpower familiar with technology**
- They fall strongly upon **personal relations**

There are some evident differences with the traditional patterns whose main features are **limited skills**, importance of manual abilities, **lifetime jobs or tasks**, and a minor importance of social and communication skills.

The new skills

Some remarks must be made concerning the **new skills**. Some of them appear in the context of technological change and others, of a sociological nature, are not as brand new as it may seem –it

could even be said that they have been revived but are habits that were already highly considered in the past.

Which are these broader, “new” skills? **The most important ones** are included in the following list, which should only be considered as **complementing** general education, technical knowledge and those skills that young people already have when they start working:

- **Social attitudes or skills** (notably capacity for **co-operation and team work**)
- **Communication skills**, including presentation, reporting and foreign language competence
- **Creativity, flexibility and autonomy**
- **Curiosity** when facing new situations
- Ability for **problem-solving and synthesis skills**
- Learning ability and **training awareness**
- Broad **scientific** and technological **literature**
- **Information processing ability**
- **Environmental awareness** (the environment is the meeting point for social pressures, new job opportunities and integrated approaches)
- **Understanding of business organisation and economic principles** (i.e. ability to see how a company works and how it is constrained mainly by costs)
- Professional attitudes and concern for **quality**

“Such demands cannot simply be addressed by increasing continuing training during working life. They require a broader, a more balanced initial education” as it is verbatim accounted in IRDAC’s 1994 report on **“Quality and Relevance”**. An active role of enterprises in any training stage or modality is paramount to meet this requirement. Only realising the importance of the productive fabric, the programmes will handle the economic problems and will be more efficient in facing the challenges of each moment. All of this bearing in mind that, according to the fore mentioned

IRDAC's report, that "skills improvement is not only an economic imperative. The social dimension is also at stake. The risk of an increasing gap between the well qualified and the less qualified, between working people and the unemployed, between the rich and the poor leads to a situation which is definitively not in the interest of Europe and which needs to be avoided at all costs".

3. TRAINING AND ENTERPRISES. MEANING AND PATTERNS OF THE ENTERPRISE TRAINING COMMITMENTS

3.1. Enterprises as training agents and work as qualification source

Enterprises are training actors

Small or big enterprises have always played a training role. This role has traditionally been limited to the **assimilation of already existing routines and patterns**. Only from time to time the training role of enterprises has been to modify work routines or patterns.

The pace of knowledge and the new organisational patterns aim at stressing the **role of enterprises as training agents**, whether they have a formal character orientation or their performance is integrated within the production process. It is the only way to achieve a flexible adequacy of human resources to technological demands and, therefore, the sustained productivity gains that allow to keep or improve a competitive status.

Work is a qualification source

Enterprises could only play an effective training role if the workforce takes advantage of the training opportunities (let's remember the **key skills**) especially those arising from work itself. Work role as a **qualification source** is increasing fast. Thus the "labour experience" is credited to be a training value translated into a certificate or a diploma by means of credits or blocks.

It is true that experience has always been a qualification source. Actually, it has been the main key in manual activities. However, current knowledge, as well as those skills and attitudes that lead us to define a certain professional level, evolve faster and they are mostly acquired at work, not in school, without considering the activity or profession. That is why the need for enterprises to turn into **learning and teaching organisations**, i.e. to be able to assimilate and transmit professional values, is currently a subject of discussion.

3.2. Quality and training

The product quality is guaranteed by quality in processes

Quality is the basic value of any training process. And that in two ways: training should be **quality targeted** and the main objective of any training policy should be the **quality of training or quality training**. In both cases, enterprises are considered to have a leading role either directly or indirectly, either as an active or as a passive agent.

Quality is focused as a process, no matter which way is adopted to cope with quality problems. Quality controls throughout a process are the guarantee of a final quality, hence the term **total quality**. That is the reason why training or, being more precise, **quality formation** becomes so important as enterprises are the meeting point for the **needs/requirements** to fulfil a particular process and for the real **availability** of human resources represented by a determined training load.

The companies interest in establishing training schemes consistent with their quality objectives is clearly expressed in the continuing and lifelong education levels.

Integrating quality-training in the enterprise context

From the initial training point of view (we mean the initial vocational training and university course studies) **enterprises can play two roles** to integrate quality and training:

- ┌ As a direct **training actor “supplier”** in the several students’ in-company placement training.
- ┌ **Contributing with quality approaches** to the training for trainers or taking directly part in the researches carried out to improve the curricula.

In any case, high stakes for enterprises are at play in the long and in the short term. Any inhibiting policy implies a severe risk or, at least, costs to be considered: those arising from “no-quality” or those stemming from training activities made by others that lead to higher wages.

3.3. The role of enterprises in the “learning society” framework

The “knowledge war”

The economic globalisation and the information technology revolution are already enough causes to start a learning war in its broadest meaning. This pacific but not soft war gives way to the birth of a new society, “**the learning society**”, “**the cognitive society**” where all the social powers have a role. The main characters of this phenomenon are the public sector and the private sector; the trade unions and employers’ associations and any individual or corporation.

Nevertheless, it must be recalled that there is another side of the coin: that of **defying actively** every kind of challenge and of **bearing the consequences of the lack of response** to new demands.

Some proposals from the European bodies

In the **European framework**, the EU public powers are strongly supporting those training policies focused on change. Within these policies a key role will be played by those **actions aiming at**:

- The acquisition of **new knowledge**
- **Bringing schools and business closer together**
- **Combating exclusion** of those groups in the edge of social and economic marginalisation
- **Proficiency in three EU languages**
- Real consideration of **investment in training as a true investment** (treated on equal basis – accountable and fiscal- with equipment investment)

These are the general objectives stated by the 1995 **Cresson’s White Paper** on education and training titled: “**Teaching and learning: Towards the learning society**”. Further remarks will be made on two objectives: the one that refers to **bringing schools and business closer together** and the one that takes into account **training as an investment**.

Guidelines for bringing schools and business closer together

In an especially dynamic context from the technological point of view, it becomes impossible for schools (of any level, including university) to cover the learning demands required by every sector. Their response ability is not fast enough and though it could be, some time would elapse before those needs could properly be dealt with. In any case, it must be remembered that from a certain age most of the active workforce cannot take advantage of the traditional education programmes. Although it is true that continuing education takes into account this fact, the problem cannot be solved in isolation since there will always be **a technical dependence on educational establishments**, especially on those closer to research.

Innovation is fostered by different factors according to where it is being generated: a company or an educational establishment. This difference leads to a certain specialisation but it implies squandering risks or dissemination problems that should be avoided at any price. How? Reinforcing the role of companies as knowledge disseminating agents and as agents that demand educational bodies new flows of training, i.e. building **stable communication links between school and business**.

The university-enterprise experience must be disseminated to the whole educational-training system

So far this idea has only been integrated into the “university-enterprise” relations which have been institutionalised by territorial or sector-aimed organisations. But this **approach proves to be insufficient** since actually only big enterprises are involved and, what turns to be more dangerous, other collaboration chances in the fields of initial vocational training and non-specific educational levels are wasted.

The overall development in the “learning society” demands **a higher permeability between the educational sector and the productive sector**. This permeability should be present at any moment and in any training or educational scheme, even in the continuing and the occupational patterns. Probably, the less relevant factor is instrumentation because there is no need of taking the risks implied by too bureaucratic relations. There are some points that must be highlighted:

└ **Enterprises have a strong learning potential**

└ This potential can be used as a **learning spur** that evolves or transforms within any enterprise

└ **Open approaches guarantee better responses from the educational system**

└ **This possible course of action does not contradict a genuine competitive** or a collaborative **behaviour** (we will later deal with “reciprocity”).

Training as an investment

We consider **training as an investment** because of the idea of **capitalisation** that arises from any training process and because of the implied **accounting and fiscal treatment** that any expense should have.

Knowledge gathering is quite similar to capital collecting and only differs in that it is materialised in individuals; although this main difference should be taken into account, the productive organisations profit from the investment on a concerned individual -when he or she is part of the organisation- as they will get immediate productivity gains. Sometimes it is not even required a parallel change in the tangible capital stock. In any case, it seems clear that as we are immersed in a technological environment, **the gross capital formation (of tangible assets) demands a parallel change in the gross “human assets formation”**. This can be expressed through a wide range of training activities sometimes closely linked to tangible investment and sometimes not so.

Problems arise when there is not a clear close link and the training process is developed in a wider context. Actually some of the actions may not be immediately adopted by the enterprises that foster them. At this point, sector-based interests come to focus and somehow they dilute the chance of getting short-term profitability from the investment made. This fact alone shows the need for training expenses to be considered as a contribution that could be used **by the enterprises** that materialise it, **by the individuals that directly benefit from it** or **by other enterprises**. If tangible investment, materialised within each company, has a favourable accounting and fiscal treatment that boosts its expansion why should not the training investment have it, when it generates **external economies** that will benefit a wider range of people.

With regard to the latest thought, it is gratifying to see how the EU shows interest in arbitrating and spreading a positive treatment of this kind of efforts. We hope that in a near future they become real and that they help to guarantee the key role of enterprises in building the learning society.

3.4 Models of training-business involvement. Some lessons

“The Dual System”

The enterprises training involvement –even at the level of official curricula- is not a new phenomenon. Throughout Europe we can find interesting schemes that are at different stages of development depending on levels and varieties but all of them are heavily based upon those aforementioned courses of action.

The most complex model is the so-called “**Dual system**”, that slightly changed, has existed for years in Germany and other countries under German influence. The German dual system deals with initial vocational training and its most interesting features can be summarised as follows:

- Pupils receive a combined **school education and in-company training**, within highly defined curricula that **last about 3 years**.
- More than **two thirds of the training period is spent in the work place**, thus there is a **trainees-enterprise work relation**
- **Social agents and the public sector** play a part in the training process at 3 different levels:
 - **Local**, where there are a Vocational Training Council and an Assessment Council. The Chambers of Commerce play a key role from the management and mediating point of view since both councils are linked to them.
 - **Regional** (in each “Land”) where there is a Regional Council for Vocational training that is linked to each “Land” Education Department.
 - **Federal**, whose main body is the Federal Council for Vocational Training (BIBB), linked to the institution that shares the name and depends on the Federal Government.

Approximately 70% of young Germans attend the dual system (more than a million and a half at the same time) and about 600.000 enterprises or organisations (20%) –a third of them being SME’s, are involved. Furthermore 70.000 teachers from educational establishments, one million company trainers and some thousands of technicians belonging to more than 80 Chambers of Commerce are involved. It leads to a **high volume of costs** that are mainly withstood by the own enterprises about

marks 2,500-15,000 per trainee and year (between pesetas 212,500 and 1,275,000) depending on the qualifications demanded and other factors that could alter them in a specific way.

The “Dual System” in Austria

Similar systems to the German one are in force in Austria and other German-speaking countries or regions. The Austrian system works in a more centralised way than the German one from the point of view of the regions powers. Other **outstanding differences** are:

- ↗ It puts the stress in the **lower vocational degrees**, although learning in advanced cycles is also possible.
- ↗ **The students themselves have to look for their training placements** in the collaborating companies, although it is true that they are usually supported by the schools.
- ↗ **The companies receive a higher economic support**, especially when handicapped students are involved

The Austrian dual system exists side by side with a more academic vocational training formula based on intermediate and advance specialised schools (technical, business, management, agriculture, tourism...etc.)

The so-called “Training in Alternance”

Instead of the dual system, **more concrete schemes**, both at the level of training schemes and of countries, have been developed. Under this **“Training in alternance”** generic epigraph different and numerous experiences have been carried out in France, United Kingdom, etc, and all of them share one feature: a combination of simultaneous or alternative on-the-job-training in a company and school training. The most common objective of those experiences has been to receive a diploma or a vocational training certificate. Nevertheless, lately the co-operation in the university field has been successfully boosted, especially by means of **university-business training partnership**.

This **university-business co-operation** has become thoroughly accepted at the European level, partly due to the initiative of both partners, that share a great ability for connecting: the biggest and highest level educational organisations and big enterprises; and partly due to all kind of facilities provided by the European Commission.

Things have evolved in a different way at the **vocational training level**, in spite of the interest and the efforts made by each country and the community bodies. The opposition stems from cultural barriers; sometimes these barriers are tangible, as lower language knowledge of pupils, and sometimes they are less tangible, as those arising from SMES limited capacity of relation.

Any model can be useful

Apart from each country's special characteristics and from the existence of more closed or flexible models, the EU fosters a further involvement of enterprises in education and training. Each reality, each regulation framework leads to choose an approach closer to that of the "dual system" or that of the "training in alternation". Even a "hybrid situation" may arise where elements from both models coexist.

What matters is to develop a collaboration model of "joint training" that meets some minimum demands of efficiency leading to secure a flow of benefits for both sides (educational and production sectors).

4. "JOINT TRAINING" AND RECIPROCITY ELEMENTS

4.1 What is exactly joint or shared training?

An example of joint training

An example to explain joint training in a practical way: the combined elaboration of training programmes for in-company modules and the development of those programmes. But this is just one of the closest and clearest examples that show accurately how Spanish Education Act 1990 based changes are already in force in the vocational training. Joint training goes beyond, affecting both concrete actions and the principles it is based upon.

What is joint training based upon?

It is worth to stop for a moment in order to consider some **principles**, so it will be easier to understand why some actions arise no matter whether they take place in continuing training, initial vocational training or universities.

Joint training is based upon the principle of **bringing education and business closer together** as the most effective way to adapt curricula to production requirements. This sector-based “agreement” (between education, training and production) takes the form of a **participation process** that somehow covers a **wide range of possibilities**, mostly under the protection of the law. Among these possibilities we can mention:

- ┌ **The design or the modification** of the training **curricula**

- ┌ **The total or partial development of the training curricula** (this being the case of the vocational training in-company placement module or the collaboration of a specialist from the production sectors trainer in other modules).

- ┌ **The mutual training**

- ┌ **The collaboration in research projects**, etc

In the Spanish case, different laws cover this collaboration,. The Education Act, the University Reform Act and others (from the National Training Programme to the Chambers of Commerce Basic Act). However, there are still some gaps, especially when it comes to transnational partnership. Nevertheless , all this factors and the legal covering would be useless if there were not **tangible reciprocity advantages**.

4.2. Reciprocity aspects or mutual dividends in joint training

There are numerous reciprocity aspects in the school/company collaboration

Table 4.1. shows a fairly exhaustive list of the advantages stemming from school/company collaboration. It has been created thanks to the experiences of a British multinational and it gives an overview of the advantages implied in the co-operation of educational systems and enterprises. Concisely, it must be highlighted:

- The **motivation** potential of **the resources concerned** (workers, trainees and trainers) when two groups whose work/training approach differs and must, somehow, converge.

- **The opening up of new opportunities and new learning and knowledge paths**, not only for trainees but also for teachers and, via tutors, for enterprises.

- The possibility of **better guaranteed recruitment**, both for the enterprise (which can choose the most suitable individual for each job) and the students (who not only get better integration opportunities but also have higher possibilities of testing which jobs satisfy them best).
- Not to mention the free access to some more intangible elements -as, for instance, those related to **advertising**- that may prove successful immediately or in the future.

Table 4.1

MUTUAL BENEFITS STEMMING FROM EDUCATION-BUSINESS CO-OPERATION

Benefits for Industry	Benefits for the educational system
<p>Fosters motivation and personal development of staff Enriches workers' performance and informal training Develops new skills, including pedagogic and training skills Social responsibility of the company has positive effects on staff</p>	<p>Fosters teachers' and students' motivation Enriches teachers' performance and informal training Develops new skills, including management skills Placements and training positions act as incentives in academia</p>
<p>Educational field is better understood, influenced and taken advantage of Improves management information. Makes easier to influence training schemes and communicate with the educational establishment Possibilities of listening to teachers and youth</p>	<p>Business field is better understood, influenced and taken advantage of Educational plans face reality It makes easier for students and teachers to understand work world It allows the educational bodies to know how new issues as pollution and equal opportunities affect business</p>
<p>Enhanced framework for workers recruitment in the long and short term Wider labour market and higher guarantees to choose Disseminates positive data concerning business Enhances key skills supply for business</p>	<p>Helps students' to be better informed about perspectives of different studies Gives access to real information, guidance sources and performance roles Possibilities of meeting a work environment and developing real work functions</p>
<p>Enhanced business goodwill Increases companies' reputation and social operative skill. Answers to government and "opinion makers" expectations Positive image among the media</p>	<p>Enhanced image of educational establishments The business allies may influence education Answers to parents and government's expectations Positive image in media</p>
<p>Provides access to new resources Teachers' placements add new experiences and perspectives Training positions help bringing wilfulness and new points of view Schools and colleges turn into business "facilities" R&D projects may be jointly developed</p>	<p>Provides access to new resources Makes easier to obtain financing for projects and special events Enterprise premises turn into training establishments The scientific and technological expertise of enterprise personnel are taken advantage of Provides access to companies' materials and equipment as well as to their tested cases</p>

Source: BP (abridged from a text in 1994 IRDAC's report on "Quality and relevance")

The collaboration outcome amply compensates the costs

However, as it was said before, the enterprise-school collaboration is not limited to the in-company placement phenomenon. It has or may have uncountable implications with an extremely rewarding outcome. In that sense, any **sponsorship** formula can be valid as collaboration means, especially if the results are closely followed by the enterprise. It must be outlined that co-operation cannot be specific or passive. On the contrary, it must be an open process of exchange, official or not, that may be more or less expensive and that may go through more or less active stages.

In any case, it is a **cost-generating** process in which costs are paid by enterprises, educational systems, trainees and intermediate agents. But, in the medium term, all the paying agents will obtain results that are higher than the costs.

Anyway it is not easy to state the precise extent of costs and benefits provided by joint training. However, there is an undeniable fact: **the most dynamic corporations always develop collaboration experiences** with educational institutions. This clearly indicates what is the trend while comparing costs and benefits.

4.3. Joint training: dissemination tools

The role of big enterprises

Up to now most experiences in education-business co-operation have been restricted to enterprises over a particular size (the example in the preceding Table is a representative one). Even in countries where this kind of co-operation is more frequent, like Germany, big enterprises play a more active role than SMEs.

In this connection, some factors concerning the management of co-operation have to be mentioned: big enterprises usually have a **training department**, small companies do not; big enterprises have **someone in charge of human resources**, small companies do not, etc. That is the reason why the dissemination of benefits provided by joint training is based upon the link between big and small enterprises (either by means of the existing commercial relations or by SMEs recruiting students or pupils trained in big corporations).

A further involvement of SMEs and the whole social fabric is required

This model of productive involvement in the training processes proves inadequate since this indirect involvement –through big enterprises- would lead to an exclusion of numerous enterprises (those that perform in a relatively self-sufficient way) from **influencing the training policies** and from turning into higher productivity most of the invested resources.

The efforts undertaken by various educational bodies in order to achieve simpler in-company placements aim at avoiding the handicaps that prevent SMEs from entering the training process. It seems that a direct involvement of small enterprises in this kind of experiences should be essential because it is the best formula for promoting the potential profits arising from them.

PART II

**DEVELOPMENT
OF THE BUSINESS
TRAINING ROLE**

5. THE EUROPEAN TRAINING SCHEMES AND THEIR ABILITY OF RESPONSE TO THE GLOBALISATION AND THE REQUIREMENTS OF THE “JOINT TRAINING”

5.1. The Spanish Experience

5.1.1. The Educational training System

Enterprises are considered in the new education act

The General Education Reform Act, a programme for educational reform, was passed on the third of October 1990. This act specially emphasises the vocational training heading and its links with the whole educational system and the production sectors. The implementation of this Act (the vocational training aspect) has been gradually performed since 1993 taking into account the outcome of some experimental antecedents in order to complete the model.

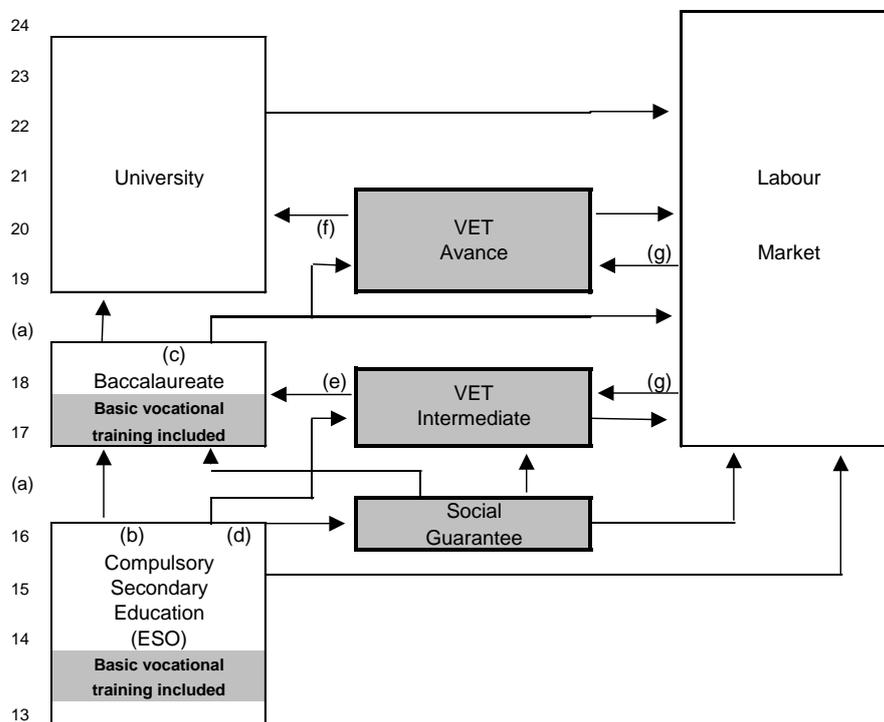
The Spanish Education Act 1990 includes the possibility of giving responses to current and future great training challenges as well as business “co-responsibility” for designing and implementing an ample part of training programmes. The company involvement in most of the educational-policy decisions is just what principally guarantees that business demands are taken into account by this policy. Furthermore, the system:

- Facilitates a **further integration** among the different levels (secondary education, vocational training and university)
- **Needs the very production system** in order to develop part of the vocational training cycles (the in-company training placement module)

On next page’s Figure, the VET links with the rest of the educational systems and with the labour market are summarised.

Figure 5.1

VOCATIONAL TRAINING ACCORDING TO SPANISH EDUCATION ACT 1990



Notes

- The scale on the left shows the estimated ages of the students taking the different cycles or degrees with the exception of Social Guarantee, where the entering age is usually 17 or 18.
- On leaving ESO (if the objectives have been attained) a certificate of "Graduate in statutory secondary education" is awarded, which allows a direct access to Baccalaureate or intermediate VET.
- On leaving baccalaureate with a diploma of "Bachelor" (in "Social sciences", "Sciences and health", "Technology" or "Arts") advanced VET can be entered (directly in those cases where the branches match the vocational varieties) students may gain access to university after taking the "selectivity" entrance examination.
- Those who do not meet the ESO objectives may continue vocational training by means of the "social guarantee" composed of vocational programmes and work-aimed contents. These students might eventually go to baccalaureate and intermediate VET after passing a test.
- A diploma of bachelor is a compulsory requirement to go to advanced VET from intermediate VET, therefore students must take baccalaureate subjects that are not validated by the "technician" diploma achieved after ending successfully an intermediate FPE cycle.
- Students may enter colleges of higher education (3 years studies) after completing the advanced training cycles and having the academic-vocational diploma of "advanced technician" (a 30% enrolment reservation is kept for them) or may eventually go to other university establishments, e.g. Faculties.
- Those adult workers who fail to meet the academic requirements to enter advanced or intermediate training cycles may do so by taking an entrance examination (at least 18 for the intermediate and 20 for the advanced). These courses may be attended or may be taken on a distance learning basis.

Post-secondary education according to Spanish Education Act 1990

From the organisational point of view it must be stressed that Spanish Education Act 1990 displays a two-stage secondary education structure.

- ◇ **Statutory secondary education (ESO)**, starting at the age of 13, is common for all youngsters

- ◇ What could be called **post-statutory secondary education** comprises:
 - 4 branches of **baccalaureate** (“Arts”, “Nature and Health Sciences”, “Humanities and Social Sciences” and “Technology”)

 - **The specific vocational education (VET)**, intermediate degree, organised in cycles, with modular structure and variable length

The specific vocational education (VET), higher degree, is defined as a **non-university further education** and is organised quite similarly to the intermediate degree.

Diplomas

The framework of the new system act establishes the following diplomas, which have academic and professional value:

- **Statutory secondary education certificate** for those who pass Secondary education Programs.

- **Baccalaureate** (specifying the **branch** studied) for those who pass **Baccalaureate**.

- **Technician** (specifying the cycle studied) for those who pass an **intermediate cycle of vocational education**.

- **Advanced technician** (specifying the cycle studied) for those who pass a **higher cycle of vocational education**.

In **comparison** with the EU 4:

4 Directive 92/51/EEC, from the Council (DOCE L209, 24/07/92)

↓ The Spanish **Advanced Technician** diploma would be a **Diploma** (further training lasting less than three years).

↓ The Spanish diplomas of **Technician** and **Bacalaureate** would be equal to “**Certificates**” (secondary education equal to Bacalaureate).

Any other training lasting 6 months or less would produce a “**Competence certificate**”.

Main features of Spanish Education Act 1990

It may be interesting to see some **outstanding points of the new system**:

- * Every student will take vocational education throughout statutory secondary education (ESO) and bacalaureate. The objective is to provide youngsters with a minimum of professional qualifications so they can start working at the age of 16 (target age for ending compulsory education and the age when working is officially allowed). These qualifications are achieved by means of the subjects that make up **the basic vocational training or vocationally oriented basic training**.
- * Those students who do not qualify (i.e. that do not obtain the statutory secondary education certificate) because they did not achieve the objectives, may take **social guarantee programmes**. There are different modalities according to the target objectives, sometimes more academic-oriented, sometimes more vocational-oriented. In the first case, the goal is to give students a second opportunity so they can continue studying; in the second case, the students may acquire the minimum professional competence to get a better access to the labour market.
- * If Compulsory Secondary Education (ESO) is successfully passed, students may **take intermediate specific vocational training** or bacalaureate and this may lead to university **or higher specific vocational training**.
- * The new system stresses the fact that the **immediate target** of the different branches of specific vocational training is **labour insertion**. This means that those who complete the different training cycles (and thus obtain the proper diplomas) have got the right competence to work with a certain level of responsibility and autonomy. Actually there is no automatic access from

intermediate to higher levels. Nevertheless, there also are access mechanisms via test and fulfilment of some requirements (see notes on Table 5.1)

- * Every student within the new FP system must undertake an **in-company training placement module**. It is compulsory to pass it in order to obtain the corresponding diploma. This kind of training was voluntary in the former system. The module makes up approximately **20% of the vocational training cycle**.

Finally we have to underline that Spanish Education Act 1990 vocation is to contribute to the adult **continuing training**, favouring the **comprehensive education** ideals and permeating the system with the notion of distance learning. It is within this context that we must place the aim **of preparing the youth to learn how to learn** and the objective of making easier for adults to join the different educational projects frequently included in **continuing training** programmes.

5.1.2. The new vocational training

Basic vocational training

Basic Vocational Training (FPB) is taught throughout the Compulsory Secondary Education (*ESO*) and **Baccalaureate**, and it **includes contents and guidelines of functional and practical character** that emphasise how useful are those less academic competencies. It comprises training actions that lead to the concrete development of subjects or matters concerning the **technological and work-oriented** aspects (Technology Area in *ESO* and Economics, Mechanics or Electronics in baccalaureate, etc.). Within the *FPB* we also see how **new technologies** are being boosted in every stage of secondary education.

FPB, alongside the instrumental levels achieved in secondary education, **constitutes the professionalism layer** demanded to undertake specific vocational training cycles. Besides, it is an attempt aiming at disseminating among young people the heavily practical aspects of education and at making vocational training more attractive for a majority of them. This kind of training is more easily structured due to the fact that compulsory education age has been extended up to 16 so the further stages can be better developed in a shorter period of time.

“Specific vocational training” (FPE) is the core of the new official vocational training

Specific vocational training can be defined as the combination of knowledge, skills, competencies, abilities and behaviours that in a special way relate to a determined professional competence.

If any individual masters this combination after taking a previously defined **training cycle** he can be awarded a **professional diploma**.

Specific vocational training is therefore structured in cycles and these are grouped under **vocational family branches**. There are **22 clusters or “families” and 135 cycles**, 61 of which are intermediate and 74, advanced. The social guarantee programmes are also related to vocational branches.

It must be specially taken into account that *FPE* is **an initial vocational training sub-system** (according to EU terminology) able to adapt, with the proper **quality** references, to the changes arising from **technological evolution** as well as to the **new qualification demands** from the labour market.

How the vocational training supply is designed

The design and specifications of each vocational branch is accomplished through an active involvement of the related production sector. Joint teams from each sector as well as educational and labour bodies made in-depth researches on the different sectors (“analysis of the sector needs”) focusing on their economical, and social and labour features so that their basic training needs were highlighted.

From the methodological point of view, we must mention **3 stages**:

- **Study and characterisation of the production sectors**
- **Determination of a group of professional profiles** that are identified by their most remarkable competencies and skills and are referred to specific employment situations.
- **Determination of the diplomas’ training requirements** (after having completed the corresponding cycles)

The methodology used in preparing the offer is, thus, a reasonable **guarantee of being consistent with the demand** and of meeting the challenges stemming from “globalisation” and “joint training”. Even more, the modular structure of cycles (dealt with in the next epigraph) makes easier, as stated by law, to revise them regularly (every 5 years initially), in order to adjust to the arising needs that may be detected by each sector.

Therefore, the Spanish official training system meets the basic requirement of paying the right attention to the business demands since business has played an active role in shaping the offer (even in geographical terms, it has defined the so-called “training plan”) and there are enough mechanisms for adjusting to future requirements, specially since the creation of the “National Qualifications Institute”⁵

5.1.3. Structure of the vocational training

The training cycles, which have a modular structure, are designed from the training needs detected by the production sectors (professional profiles).

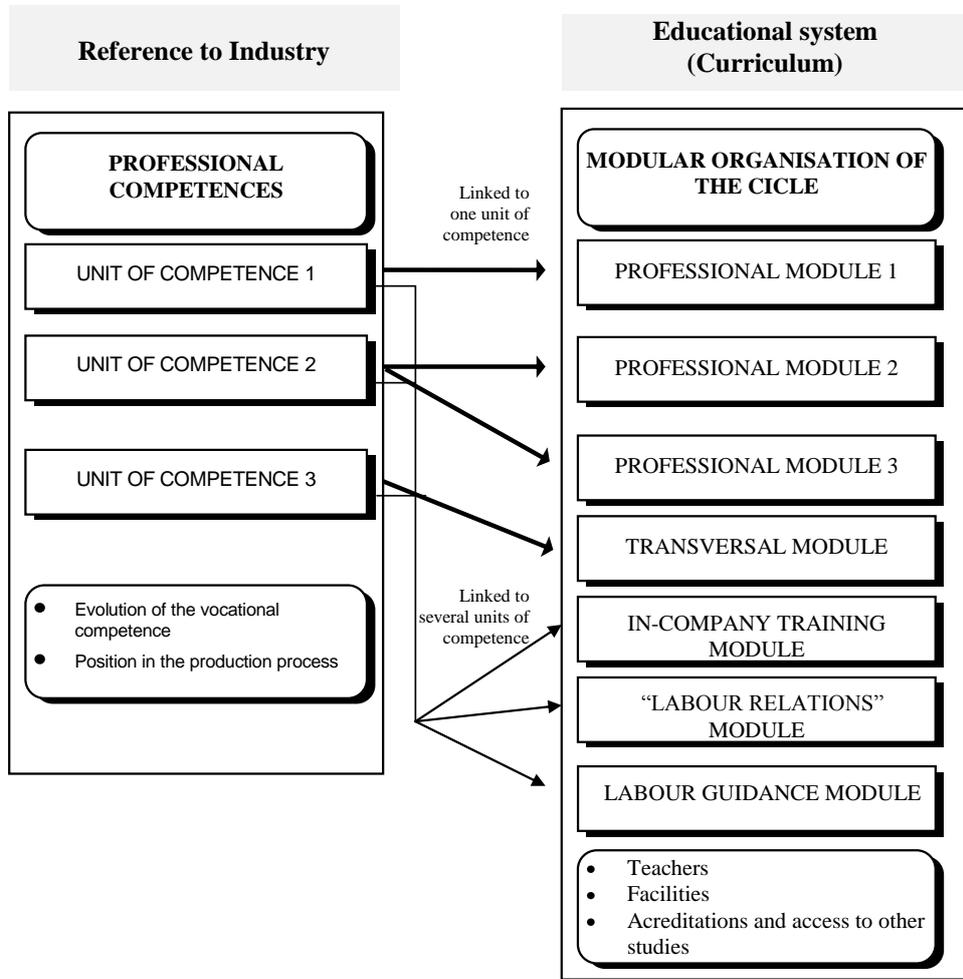
Figure 5.1. summarises the references to the production system from the global professional competence and from partial units of competence (left column). Its translation into the educational system is a modular structured training cycle. The modules can be:

- **Linked to a unit of competence**
- Linked to several units of competence (**cross-curricular modules**)
- **Specific modules**, their-company training module being the most outstanding one.

⁵ RD 375/1999, of March 5th (BOE of 16th)

Figure 5.1

**GENERAL STRUCTURE OF THE NEW
VET TITLES**



On the next pages are given some examples from different clusters. It can be noticed that there is no link between level (intermediate or higher) and duration (short or long).

Table 5.1

EXAMPLE Nº 1 ON THE STRUCTURE OF A NEW VET TITLE

<p>VOCATIONAL BRANCH: ELECTRICITY</p> <p>DIPLOMA: TECHNICIAN IN CONSUMERS ELECTRONIC EQUIPMENT</p>				
REFERENCE OF THE PRODUCTION SYSTEM		TRAINING SYSTEM		
<p>GENERAL COMPETENCE:</p> <p>- To install and maintain consumers electronic equipment, (audio and video), microcomputers and telecommunications terminals, being able to accomplish the technical after-sales service with quality and an adequate response time</p>		<p>REQUIRED TRAINING:</p> <p>- BASIC VOCATIONAL TRAINING (FPB): ✖ STATUTORY SECONDARY EDUCATION</p> <p>- SPECIFIC VOCATIONAL TRAINING (FPE): ✖ INTERMEDIATE TRAINING CYCLE ON "CONSUMERS ELECTRONIC EQUIPMENT" (2,000 h)</p>		
<p>UNITS OF COMPETENCE:</p> <p>1. To install and maintain electronic audio equipment 2. To install and maintain electronic tv and video equipment 3. To install and maintain electronic microcomputers and telecommunications terminals 3. To install and maintain electronic microcomputers and telecommunications terminals 4. Management, direction and commercialisation in a small enterprise or workshop</p>		<p>MODULES LINKED TO A UNIT OF COMPETENCE:</p> <p>1. Audio equipment (175 h.) 2. Video equipment (200 h.) 3. Electronic data systems (130 h) 4. Microcomputers and telecommunications terminals (200 h.) 5. Management, direction and commercialisation in small enterprises (90 h.)</p> <p>CROSS-CURRICULAR VOCATIONAL MODULES</p> <p>6. Relations in the working environment (65 h.) 7. Quality (65 h.) 8. General electronics (250 h.) 9. Digital and microprogrammable electronics (250 h.) 10. Basic installations (130 h.)</p> <p>SPECIFIC VOCATIONAL MODULES</p> <p>11. Work training and guidance (65 h.) 12. In-company training (380 h.)</p>		
DEVELOPMENT OF THE RELATIONSHIP BETWEEN A UNIT OF COMPETENCE AT ITS RELATED VOCATIONAL MODULE				
UNIT OF COMPETENCE "X":		VOCATIONAL MODULE "X":		
PERFORMANCE	PERFORMANCE CRITERIA	ATTAINED SKILLS	CONTENTS	ASSESSMENT CRITERIA
.../...				

Table 5.2

EXAMPLE N° 2 ON THE STRUCTURE OF A NEW VET TITLE

VOCATIONAL BRANCH: TRADE AND MARKETING				
DIPLOMA: TECHNICIAN IN COMMERCE				
PRODUCTION SYSTEM REFERENCE		TRAINING SYSTEM		
GENERAL COMPETENCE: The overall professional qualification requirements demanded by the production system are: - To carry out the action schemes devised for the commercialisation of goods and /or services under the best quality, time, place and price conditions - To direct and manage a small trade establishment		REQUIRED TRAINING: - BASIC VOCATIONAL TRAINING (FPB): ✖ STATUTORY SECONDARY EDUCATION - SPECIFIC VOCATIONAL TRAINING (FPE): ✖ INTERMEDIATE TRAINING CYCLE ON TRADE (1400 H.)		
UNITS OF COMPETENCE: 1. To organise and to keep control of the goods storage operations 2. To make animation activities for the point of sales 3. To accomplish products and/or services sales operations 4. To direct and manage a small trade establishment		VOCATIONAL MODULES LINKED TO A UNIT OF COMPETENCE: 1. Storage operations (130 h) 2. Point of sales animation (160 h) 3. Sales operations (160 h) 4. Direction and management of a small trade establishment (130 h) CROSS-CURRICULAR VOCATIONAL MODULES: 5. General purpose computer applications (130 h) 6. Foreign language or the language of the “Comunidad Autónoma (Autonomous Community) (120 h) 7. Relations in the working environment (65 h) SPECIFIC VOCATIONAL MODULES: 8. Work training and guidance (65 h) 1. In-company training (440 h)		
DEVELOPMENT OF THE RELATIONSHIP BETWEEN A UNIT OF COMPETENCE AND ITS RELATED VOCATIONAL MODULE:				
UNIT OF COMPETENCE “X”:		VOCATIONAL MODULE “X”:		
PERFORMANCE:	PERFORMANCE CRITERIA:	ACQUIRED SKILLS:	CONTENTS:	ASSESSMENT CRITERIA:
.../...				

5.1.4 In-company training. The placement module

It was mentioned before that one of the Spanish Education Act 1990 features was that every student in specific vocational training should compulsorily take an in-company placement module. It is the cycle stage called “**in-company training placement module**”.

In- company training is one of the basic axis of the official vocational training reform.

Therefore, its implementation is one of the most significant challenges that will show whether the reform is to be trusted. The objective of the enforcement is to give a significant step (in the training programmes, in their fulfilment, in the business partnership, in the assessment, etc) towards turning it into one of the most determinant vocational modules in reference to the vocational training education quality.

In order to carry out this task it could be useful to explain which are the in company training **goals** expected from the educational system.

In- company training objectives

┌ The first and **basic** in- company training **objective** is to provide students with real opportunity for **applying the learnt issues** or for **demonstrating the competencies acquired in the educational establishments**, both in specific production processes and in real working environments. That is the reason why the Ministry of Education and Culture (MEC) has stated in official records that the tasks to be fulfilled by students in companies should be “**training-production**” tasks.

┌ The **second objective** aimed at by in company training is to let students know and understand what is **the real social and labour structure of a company** and especially:

- ◆ Which **job positions** are demanded in a particular production sector
- ◆ Which **functional and organic relations exist** among the workforce of a particular enterprise
- ◆ **How some tasks or activities are related to others**

- ◆ How **responsibilities** are organised and distributed
- ◆ Which **quality control** techniques or procedures actually exist in companies
- ◆ What is an actual **work shift or schedule**

- └ The **third objective** is the **assessment goal**, i.e. to be able to receive information regarding the quality of the training conveyed in educational establishments and how it is complemented in a company. In short, how the system adjusts to the production requirements.

The module specific aims are detailed in the next chapter.

6. IN-COMPANY TRAINING PLACEMENT. BASIC INFORMATION

6.1. Spanish experience

6.1.2 What is the purpose of in-company training?

What is the in-company training?

The in-company training vocational module is a **specific training block** that has to be developed in enterprises. We can highlight some features:

- a) It takes the form of a **training** that:
 - **Has been** previously **scheduled**
 - **Is compulsory** in order to be awarded the diploma
- b) In company-training content is to **carry out productive activities** that suit the expected title
- c) The **most relevant characteristic** is that this training **is developed in a true production environment** where students can perform activities and functions that suit the different positions of the professional profile and can know how the manufacturing or the services processes and the work relations are organised.
- d) Throughout this process the students are advised and guided by **two key persons**:
 - The **teacher-tutor** (from the school)
 - The **tutor or trainer** (from the company)

How the in-company training module has been defined

The structure of the in-company training module is the same as that of the modules or “subjects” of the specific vocational training cycles. A certain amount of **skills** are defined in each module and the students have to master them when the in-company-training placement is accomplished.

In order to check if these skills have been acquired or not some guidelines concerning the **assessment criteria** are given, which will show if the trainee has mastered those demanded skills.

Finally this module contents are considered as **general activities** so that each school and each enterprise may incorporate them in the trainee’s training process and may adjust them to their needs, all of which will lead to the preparation of a **training programme** (dealt with in the next chapter).

Which are its goals?

The in-company training module main goals are:

- **To complete the professional competence** attained at school
- **To acquire knowledge of the production organisation** and the relations system arising in a working environment
- To be useful in **contributing towards achieving vocational training general objectives** by getting both the identity and maturity that gives way to a future learning and the ability of adjusting to changing qualifications
- **To assess the students’ professional competence**, focusing those aspects that cannot be tested in educational establishments because a real production environment is required

6.1.3. The regulations framework

At nation-wide level

The in-company training module plans, implementation and assessment take place within a nation-wide institutional framework that is composed of:

- **Spanish Education Act 1990**, article 34, section 2 states the in-company-training placement period as compulsory for FP courses
- The 7 May **1993 Royal Decree 676** where the **general guidelines** on diplomas and FP minimum educational requirements are set
- Each of the **Royal Decrees** where the **different professional titles** of the FP training **cycles** (skills and in-company training assessment criteria) are established
- The **3/1993** basic **Act** for the Chambers of Commerce, Industry and Navigation (article 2, section 1, sub-section f) where these associations are entitled to co-operate with the educational bodies to carry out the in-company training placements
- The collaboration **agreement** between the Ministry of Education and Culture and the High Council of Chambers of Commerce, Industry and Navigation, signed on May 1999 where the agreement signed the 15th of February, 1993 is updated and elaborated and other similar agreements that educational bodies may have signed with other associations.

At regional level

Some regions with educational powers have established their own regulation from several years ago. Others follow the scheme designed by the Ministry of Education, consisting in elements concerning adaptation of the curricula, assesment, promotion, collaboration of industry, etc.

6.1.4. Actors and implementation of in-company training

Different agents play a part of in-company training

Educational agents and business agents participate in in-company training management. Among the first ones we can mention the corresponding **bodies and establishments**. Among the second ones, apart from the **enterprises** or corporations that offer training positions, it is frequent that some **intermediate entities**, as Chambers of Commerce or employers' associations, collaborate. in-company training is materialised in the collaboration between schools and companies. This

collaboration is usually achieved through agreements with specific characteristics depending on the agents implicated.

The framework agreements and the “pre-agreements”

The so-called “**Education Programmes Unit**” (*UPE*) of each Local Education Office collaborates with the schools providing them with a suitable number of **training positions**. But sometimes the local education office efforts are not enough to achieve the demanded training placements. That is the reason why the signature of collaboration framework agreements with business associations or corporations has been envisaged. These associations will provide the collaboration of the corresponding companies or entities.

The framework agreements (some of them have already been mentioned) are institutional agreements that involve the educational bodies and the intermediate entities. Those currently in force are stated in the appendix.

As a result of the signing of some framework agreements, it has been possible to have **catalogues of collaborating companies** such as the Chambers’ of Commerce. The companies that appear in those catalogues usually take provisional collaboration engagements through the so-called pre-agreements

Pre-agreements are signed by a Chamber of Commerce and its local enterprises. They take the form of a **statement of intentions** where the enterprises express the purpose of co-operating in the development of training placements.

The partnership of educational establishments and companies is done by means of a **specific agreement**, dealt with under the next epigraph.

6.1.5. The specific collaboration agreement

Main features

It is a **formal agreement** between an **educational establishment**, where official vocational training courses are given, and a **company or institution** that offers training positions for in-company training placements.

It is usually called “**School-Company Agreement on the development of In-company Training**”.

We are going to mention the outstanding **features** of specific agreements:

- ☞ It may encompass **one or more pupils** who study in the same educational establishment. Therefore signing just one specific agreement with the same company is enough
- ☞ **It might be rescinded** at the request of any of the parties
- ☞ **No labour relation** of trainees and enterprise **is implied**. The company is not allowed to cover, not even eventually, any position with trainees unless a work relation concerning the payment of contracted services arises and the student’s training activities stop.
- ☞ The **trainees are covered** by means of a school insurance from accident **risks** as well as from public liability arising from risks to a third party (by means of an additional insurance subscribed by the educational bodies).

Specific agreement model

The official specific agreement model is a 5 copies form. The collaboration **clauses** are printed at the back of the official model.

As soon as the agreements have been signed and each section has been filled in, they are sent to the Local Education Office that vets and distributes them among the **addressees** of each copy:

- **Local Education Body** / VET Local Council
- The signing **educational establishment**
- The signing **company** or institution
- **Chambers of Commerce** (if the company is in their respective catalogue)
- **Local Labour and Social Affairs Office**, so that they may record that VET students are having training placements in a determined company and thus, **they are not under a labour contract**

In chapter 7, the guidelines for materialising the specific agreements are given.

6.1.6. Access to in-company training modules. Length and fulfilment periods

Access to in-company training modules

We must remember that those who study intermediate or advanced training cycles **should compulsory take the in-company training module**, except for the students whose professional experience is recorded and stated by law 6

The in-company training module can be taken if **all the modules** given in the educational establishment, i.e. the “academic part”, **have been passed**. Nevertheless, the training cycle educational staff can grant access to an in-company training module to those students that have just failed one vocational module.

Bearing in mind that students start **intermediate** training cycles at the age of 16, access to the placements takes place, at least in this case, at the **age of 17**.

What is usual for the **advanced** cycle is that access takes place from 18 onwards. In this case access to the placements happen, but for some exceptions, at the ages of **19 or 20**.

Placement length

The module extension is stated in the official curricula for each training cycle, as can be seen in the examples of chapter 5 (Tables 5.2 to 5.5). It fluctuates **between 350 and 700 hours** (from 10 to 20 weeks), depending on the title, although it may vary according to the educational bodies that have competencies upon it. The tuition hours students have to spend with their teacher-tutor at the educational establishments are included within the placement hours.

The daily in-company time span spent by the trainees should **equal or be similar to the company working hours**. Since some tuition will take place in the educational establishments, some days will have to be kept for it (usually one every 15 days).

Fulfilment periods

6 RD 777/1998 of April 30th and DG , FP and PE State Office dated July 20th, 1998

The placements are carried out in **school period**. Therefore, the educational holidays (summer months, Christmas and Easter) are excluded. If some exceptions eventually arise they must be officially approved according to the procedures later mentioned.

The concrete placement fulfilment periods depend on each cycle. The usual rule is:

- * The **short** (1,200 to 1,400 training hours, placements included) **cycles** are fulfilled between **September and December** of the year after starting the cycle. For instance: the placements for the advanced cycle on “Secretarial Studies” started in September 1999 will be fulfilled between September and December of 2000.
- * The **long** (2,000 training hours, placements also included) **cycles** are fulfilled in the first six months of the second year, usually between **March and June**. For instance: the placements for the intermediate cycle on “Consumers Electronic Equipment” started in September 1999 will be fulfilled in the spring of 2001.

The time development of the full cycle divided in three-month periods is given as an example in Table 6.1.

Table 6.1

IN-COMPANY TRAINING FULFILMENT PERIODS

A) Short cycles: a school year (3 three-month terms) + in-company training equal 1,200/1,400 hours, 300/400 of them are in-company training

EDUCATIONAL ESTABLISHMENT			COMPANY
1 st	2 nd	3 rd	IN-COMPANY TRAINING
October-December	January-March	April-June	September-December
1 ST YEAR			2 ND YEAR

B.1) Long cycles: two school years (6 three-month terms), in-company training included, equal 1,800/2,000 hours, 300/400 of them are in-company training

EDUCATIONAL ESTABLISHMENT					COMPANY
1 st	2 nd	3 rd	4 th	5 th	IN-COMPANY TRAINING
October-December	January-March	April-June	October-December	January- June	
1 ST YEAR			2 ND YEAR		

B.2) Long cycles: two school years (6 three-month terms), IN-COMPANY TRAINING included, equal 1,800/2,000 hours, 700 of them are in-company training

EDUCATIONAL ESTABLISHMENT				COMPANY	
1 st	2 nd	3 rd	4 th	IN-COMPANY TRAINING	
October-December.	January-March	April-June	October-December.	January-March	April-June
1 ST YEAR			2 ND YEAR		

7. IN-COMPANY TRAINING MANAGEMENT. TASKS AND RESPONSIBILITIES OF THE DIFFERENT ACTORS

In the previous chapter, we mentioned the different actors involved in the development of the module of in-company training: government bodies, schools, companies and intermediate organisations. Now we are going to try to **identify the functions of each actors**, with a special reference to those of two key persons: the schools (**the teacher - tutor**) and the company (**the tutor of the company**, main protagonist in the transfer of professional elements towards the pupil).

7.1. The Spanish experience

7.1.2. The functions of the educational administrations

Most of the public responsibilities concerning in-company training correspond to the regions, although the Ministry of Education (through the Vocational Training Directorate) contributes to improve the system or, in few cases, acts in a direct way, helping in:

- ✎ Establishing the general conditions of the in-company training, referred to academic, administrative and economic aspects.
- ✎ Developing orientation material for the elaboration of the " training programmes" of the in-company training.
- ✎ **Encouraging the participation of the companies** in training.
- ✎ Accomplishing the permanent evaluation of the global system of the in-company training.

Framework agreements are subscribed as useful instruments to develop these functions, in order to allow the collaboration between entrepreneurial entities at important stages of the initial process.

Regional Administrations responsibilities

The Provincial or local bodies of the Ministry of Education, or of the Regions, have the functions and powers that are summarised in Table 7.1.

Table 7.1

**FUNCTIONS OF THE PROVINCIAL OR REGIONALS BODIES
IN-COMPANY TRAINING**

a) With the technical support of the collaborative entities (Chambers of Commerce, entrepreneurial organisations, etc.): <ul style="list-style-type: none">▪ To have a data bank on the entrepreneurial fabric of the province▪ To develop an information and explanation plan to the companies on the importance and interest of the entrepreneurial collaboration for a good development of the in-company training▪ To make a catalogue with the list of companies interested in collaborating in the development of in-company training▪ To program and to impart, in the framework of the Provincial Training Programme, courses for:<ul style="list-style-type: none">▪ Educational personnel in charge of co-ordinating the in-company training (teachers - tutors)▪ In-company personnel in charge of following up the in-company training (tutors or instructing of company)
b) To assign to each educational centre its entrepreneurial zone of influence
c) To advice and to support the educational centres in: <ul style="list-style-type: none">▪ The relations with the companies▪ The elaboration process of the agreements between the educational centre and the work centre▪ To provide as much support materials as possible, for a good development of the in-company training
d) To distribute to the educational centres the budget intended to compensate the expenses of implementation, development and follow-up of the in-company training
e) To inform periodically to the Provincial Commission of Vocational Training about installation of the in-company training in its provincial area
f) To provide the Central Services with the updated data about implementation of in-company training in its respective provincial area

7.1.2. The functions of the schools. The teacher - tutor

The educational establishment is responsible for:

- ✓ The **teaching of the "academic modules"** of the different cycles.
- ✓ **To facilitate and to supervise the accomplishment of the practices module.**

It is, therefore, in the educational establishment, whose official denomination is **Secondary Education Institute (IES)**, where most of the training takes place.

In each school, there are some **persons with powers or specific functions** related to the in-company training:

- **The Headmaster**

- **The Head of Studies**

- **The Head of Department**, normally one for each vocational cluster.

- **The Teacher -Tutor**, without doubt, the principal figure of the centre within implementation process of the placement.

The functions and powers of the school are summarised in Table 7.2. In the mentioned Table we can find the functions, powers or tasks of each of the persons listed above, except for the teacher - tutor's that, given his/her importance, will be dealt separately later (Table 7.3).

Table 7.2

**FUNCTIONS AND POWERS OF THE SCHOOLS IN RELATION WITH THE
IN-COMPANY TRAINING, BY LEVELS**

1. The Headmaster of the centre:
<p>a) Signs the specific collaboration agreements with the companies or institutions on behalf of the educational administration and assumes responsibility of their execution, co-ordinated in the centre by the Head of Studies and the Head of Department of the vocational cluster</p> <p>b) Informs all members of the educational community and to the Scholastic Council of the centre about:</p> <ul style="list-style-type: none"> - Collaborative companies - Established training programmes - Number of pupils who accomplish the in-company training in each course - Results of the evaluation and follow-up of the in-company training organised by the centre <p>c) Informs the corresponding territorial Administration about the existence of agreements or pre-agreements that guarantee the accomplishment of the in-company training of the pupils registered in formative cycles</p> <p>d) Nominate, proposed by the Head of Studies , the teachers - tutors of each vocational training cycle</p> <p>e) Pays to the collaborative companies the amounts anticipated as economic compensation (1):</p> <ul style="list-style-type: none"> - Informing the Scholastic Council of the establishment - Observing the legally established procedures <p>f) Pays the teachers - tutors and pupils the economic amounts to which they may have right:</p> <ul style="list-style-type: none"> - Informing the Scholastic Council of the establishment - Using the justificatory expenses procedures (receipts and transportation vouchers)
2. The Head of Studies

<ul style="list-style-type: none"> a) Co-ordinates the activities of the Heads of Department b) Co-ordinates and directs the action of the teachers- tutors, with the collaboration, if applicable, of the Orientation Department and according to: <ul style="list-style-type: none"> - The academic and professional orientation plan - The tutorial action plan
3. The Head of Department (vocational cluster)
<ul style="list-style-type: none"> a) Co-ordinates the programming of the training cycles b) Collaborates with the executive board in the promotion of the relations with the companies and institutions that participate in the training of the pupils in the work centre

(1) Not always exists economic compensation to the companies. It depends on the different Regions.

Functions of the teacher - tutor of the schools

The teacher - tutor is the **principal link between the educational and the company worlds**, in spite of the fact that a certain number of formal responsibilities reside in other persons of the establishment, such as the signature of the specific collaboration agreement with companies. Table 7.3 summarises his/her tasks.

Table 7.3

THE TASKS OF THE TEACHER-TUTOR

a) To determine the conditions of the generic training programme
b) To visit the local companies
c) To learn about the technological conditions of the company
d) To study and to agree on the specific formative programme for each pupil and company <ul style="list-style-type: none"> - To determine the order if there is more than a company to accomplish the programme (maximum three)
e) To agree with the tutor of the company <ul style="list-style-type: none"> - Training tasks - Activities programme
f) To explain to the pupils the conditions of the company <ul style="list-style-type: none"> - Work task - Security and occupational health of the sector
g) To introduce the pupils to the company

h) Twice a month:
<ul style="list-style-type: none"> - To visit the company - To meet the pupils in the educational centre - Tutorial activity (difficulties, to clarify doubts, etc.)
i) To study the report of the company
<ul style="list-style-type: none"> - To include it in pupils dossier
j) To asses the in-company training module

7.1.3. The functions of the company's actors

The functions of the centres and other agents of the educational world have been already described. We have also mentioned some of those which correspond to the entrepreneurial agents. We are going to begin with those that have an intermediate character, that is, those which will have a most determinant function in the connection between the school as well as the company and in the global assessment of all the training process.

The role of the intermediate organisations

Organisations such as the **employers and associations federations**, or **corporations as the Chambers of Commerce**, facilitate the connections of the educational establishment with the companies and support these in technical and pedagogical aspects. Besides, the role that these institutions play in transmitting the needs of the companies to the public decision powers with regards to educational or training policy.

Functions of the Chambers of Commerce

The collaboration of the Chambers of Commerce is based in two basic pillars:

- * Approach to the experience of other countries of the EU.
- * Use of the Chambers of Commerce network, taking into account that:
 - There is, at least, **one Chamber of Commerce in each province** (in some provinces

there are two or three).

- The Chambers **act in all the sectors** of production and services (except in agriculture).
- They have an **updated register** of the companies.
- They are **aware of the companies** in their territory.

All this confers them a **privileged situation**, supported furthermore by law, for:

- ◆ The **search of collaborative companies** for training.
- ◆ The **selection** of the most appropriate ones.
- ◆ The **technical support and follow-up** of the training process.

Table 7.4 shows, in the following page, the concrete functions of the Chambers of Commerce, extendible to any other collaborative organisation of comparable characteristics.

Table 7.4

FUNCTIONS OF THE CHAMBERS OF COMMERCE AND OTHER INTERMEDIATE ORGANISATIONS

a)	To elaborate a catalogue including potentially collaborative companies, by vocational clusters
b)	To explain to the companies the characteristics of the practice module, as well as the participation conditions to take part in it
c)	To check the requirements that the companies should fulfil to accomplish practices, according to the criteria of quality specified by the educational authorities
d)	To elaborate the catalogue of collaborative companies mentioning the: <ul style="list-style-type: none"> · Sector (vocational cluster) · Number of formative posts · Geographical location + Any other information that could be of interest for practices development
e)	To sponsor the specific agreement company of collaboration between companies and educational establishments
f)	To advise the companies about: <ul style="list-style-type: none"> · Technical problems · Organisational aspects · Legal framework · Tutor profile · Programming · Assessment, etc.

Identification and selection of collaborative companies

In general terms, in order to identify the work centres that are better adapted to the objectives of the in-company training, we should take into account the following **criteria**:

- ┌ Minimum guarantees on the **principles 'and objectives' acceptance of the in-company training** by the company (a good way to get it is the signing of a pre-agreement or commitment of collaborating, alluded in epigraph 6.3 of chapter 6 and which is offered below an example).
- ┌ **Organisation and evaluation of the entrepreneurial structure**, verifying that it permits the development of the formative activities related to the professional profile of the formative cycle.
- ┌ Judgement on the availability of updated technological resources, in facilities as well as in equipment, and of personnel qualified for the good development of practices.
- ┌ Socio-economic interest of the work centre, in relation to the local or provincial development and with the occupational insert of the pupils.

Procedure

With the exposed criteria:

- ┌ The Chambers of Commerce, or the entrepreneurial organisations, elaborate a list of "potentially collaborative companies". Then, with the collaboration of the companies, a great number of them usually show interest in participating in training that can lead to signing the **pre-agreement** (in the following page is offered an example).
- ┌ Next, it is verified that the **jobs offered by the companies are adapted** to the accomplishment of practices. A useful instrument to verify this is the so-called "**Collaborative Company Card**" that figures after the pre-agreement model.
- ┌ **This information passes to the corresponding Service of the Ministry of Education** (normally the Educational Programmes Unit), or to the competent **educational Administration**.
- ┌ The **Services of the Ministry of Education, or the competent territorial units** in each case, facilitate this information to the corresponding educational centres.
- ┌ The work centres thus contrasted integrate the data base of "Catalogue of Companies, Organisations and Institutions for the accomplishment of the in-Company Training", which is at the disposal of the training centres.

┌ Also, the local educational services will be able to collect additional information, through companies or entrepreneurial associations, that can be of interest for better develop the practices.

PRE-AGREEMENT COMPANY – CHAMBER OF COMMERCE FOR IN-COMPANY TRAINING PRACTICES

Mr/Ms. _____
 with DNI _____
 as legal representative of the company, group of companies or collaborative entity designated as _____ with NIF (fiscal identification) _____ located in _____, street _____ Post code _____
 telephone _____ fax _____ e-Mail _____

DECLARES

To agree to collaborate with the Chamber of Commerce for future training practices for pupils of the cycles of the new VET

AGREES

To subscribe the present collaborative pre-agreement for the development of the training activities, that will be definitely formalised in due time.

That the person of the company responsible for the tutorship will be Mr/ Ms. _____, with (ID) _____

The present pre- agreement will affect to _____ pupils.

Training Cycle	Number of pupils

In _____, the _____ of _____ of _____

Company

Chamber of Commerce

COLLABORATION COMPANY CARD

Name of the company																			
Address:																			
Telephone	Fax.:	E-Mail:																	
NIF:																			
1. BASIC INDICATORS																			
☞ Size (number of workers):																			
☞ Sector/ of activity:																			
☞ More important productions or activities including intermediate processes (list):																			
☞ Market share (approximate % distribution sales)																			
○ Local / Regional:																			
○ National:																			
○ Foreign:																			
	Top	High	Medium	Low															
☞ Technological level:	π	π	π	π															
2. SPECIFIC DATA																			
☞ Person of contact:																			
☞ Tutor/s of training:																			
☞ Number of pupils that accepts:																			
☞ Distances to the nearest educational centres (in Km.):																			
* Centre A:.....																			
* Centre B:.....																			
* Centre C:.....																			
3. OTHER DATA OF INTEREST																			
SI NO																			
☞ Does it have a training department or training centre? π π																			
☞ Other data that may reflect training capacity:																			
☞ Entity that proposes the collaboration:																			
4. APPRAISALS ON PREVIOUS COLLABORATION, IF APPLICABLE																			
Scholastic course																			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">98 / 99</td> <td style="width: 25%; text-align: center;">97 / 98</td> <td style="width: 25%; text-align: center;">96 / 97</td> <td style="width: 25%; text-align: center;">95 / 96</td> </tr> <tr> <td>☞ Number of pupils</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> <td style="text-align: center;">[]</td> </tr> <tr> <td>☞ Attainment of the training objectives (*)</td> <td style="text-align: center;">[A B C]</td> </tr> </table>						98 / 99	97 / 98	96 / 97	95 / 96	☞ Number of pupils	[]	[]	[]	[]	☞ Attainment of the training objectives (*)	[A B C]	[A B C]	[A B C]	[A B C]
	98 / 99	97 / 98	96 / 97	95 / 96															
☞ Number of pupils	[]	[]	[]	[]															
☞ Attainment of the training objectives (*)	[A B C]	[A B C]	[A B C]	[A B C]															
☞ Indicate strong points:																			
☞ Indicate weak points:																			

(*) Indicate with a circle the elected option: A = High B = Good C = Notable Lack

7.1.4. Functions of the company. The tutor

The company is responsible for the in-company training module. But the company, who acts as a collaborative agent of the educational establishment, receives the technical support from them and the general lines for the development of training.

Table 7.5 summarises the concrete commitments that the company assumes when signing the specific collaboration agreement with the educational establishment.

Table 7.5

COMMITMENTS OF THE COMPANIES

The company is committed:
a) To the fulfilment of the training activities.
b) To designate a tutor of the company for co-ordinating and following-up the training practices of pupils in the work centre
c) To facilitate the access to the company of the teacher - tutor of the educational establishment so he/she can accomplish the follow-up, assessment and supervision of the training activities
d) To facilitate the accomplishment of the programmed training activities, their follow-up and the evaluation of their progresses

Functions of the tutor of the company

The tutor of the company is the principal actor and the responsible for the follow-up of the pupil training activities in the company. He/she organises the job in function of the available technical means and taking into account the objectives proposed in the formative training.

In Table 7.6 are fulfilled the basic functions of the tutor of the company.

Table 7.6

FUNCTIONS OF THE TUTOR OF THE COMPANY
a) Responsible for the training activities of the pupils in the work centre
b) Orientation of pupils during their stage in the company
c) Assessment of the progress of the pupils.

The tutor of the company has certain autonomy in the performance of his/her functions. Thus, for example, there will be **functions or decisions "shared"**, with the teacher-tutor, such as:

- ◆ **Programming of the training activities** (chapter 8).
- ◆ **Number of pupils that can be attended simultaneously.**
- ◆ **Resolution of certain technical or personal problems** that may arise
- ◆ **Filling-in the follow-up and evaluation card** (chapter 9).

7.1.5. Compensation of expenses originated by the in-company training

We have to make a difference between expenses incurred by educational instances (pupils and teachers) and those whose objective is to compensate the companies for their collaboration.

The payment of the corresponding amounts is accomplished through a **strict justification procedure of the expenses** (receipts and invoices).

Expenses caused by the pupils

Pupils who take part in training in work centres receive payment for all expenses incurred. The authorised expenses for these activities are:

- 3 - Transport.
- 3 - Food expenses (indispensable cases and very necessary ones).
- 3 - Wardrobe expenses (some cases).

Expenses caused by the teachers - tutors of the educational centre

The Central Services of the Ministry of Education (MEC) or the competent Unit determine, depending on the number of participating pupils, an amount of money for paying the expenses incurred by the teachers - tutors while following-up and evaluating the training.

The expenses that can be imputed by the teachers - tutors are those of communication and transport and locomotion for the visits to the companies.

Compensation to the collaborative companies

The compensation to the companies or collaborative institutions in the training programme depends on each educational administration. In some cases the educational establishments pay companies with their own budget, as payment by a borrowed service. The companies will have to invoice the corresponding amount (up to 12 euros/hour/pupil in the course 98-99), without need of including VAT.

7.2 In-training Placements—An Instrument to Re- guidance

Introduction

About one hundred schools throughout Italy have been experimenting with a course, known as Progetto 2002, which anticipates the reformed educational system in its main lines (see Guided Pre-secondary school, Chapter 5), at least referring to the Guided Pre-secondary school, which is the common, basic course students will attend before choosing the more specialised three-year secondary education courses.

In the course the so called **Integrated Area** is planned to provide for such interventions as required to focus, specify and strengthen those aspects of the curriculum, which better meet the opportunities of the local situation both in socio-economic and cultural terms. At the same time the role of the **Integrated Area** is to offer the possibility of taking actions aimed at regaining students' interest in their studies and of enhancing the value of **best practices**.

As far as vocational education is concerned links with the territory are extremely valuable to develop different proposals of services and opportunities, which is an aspect the **Integrated**

Area is meant to fully exploit.

With this in mind the Vocational State **Institute F. Datini** together with FIL spa, the Agency for Regional Vocational Education of the **province of Prato** planned a project to be experienced in the so-called Integrated Area. The actions, as planned in the project, are aimed at obtaining integrated education, which, by itself, promotes guidance. In order to prevent students from dropping out of school it is necessary to develop interest in their studies by making them able to reflect on their attitudes, skills and ambitions, and become more confident and conscious of problems and opportunities when choosing how to plan their future.

Up to now actions in Regional Vocational Education have been planned for students once they have already dropped out of school to help them find an easier access to the labour market. Students who attend such courses have already had negative, frustrating experiences in the process of learning. On the contrary the main target of planned, integrated actions between state and regional educational bodies is to intervene at a moment when the young students have not yet been declared unsuccessful and have not experienced repeated failures. In order to give new, stronger power to the reasons which still keep them at school syllabuses are individually designed.

An integrated action allows to emphasise continuity between education and work so that experiences in either area will not exclude each other but become interchangeable, parts of a never ending process which intertwine at different times. The **theoretical assumptions** underlying the project are those, which inspire **long life learning**, alternance learning and the **systems of recognised credits**.

The project tends to enhance individual choices which keep students' options open, whatever they decide to do next, following the basic principle of long life learning, so widely accepted in the European context of vocational education.

The structure of the integrated project is modular, in a system of credits and takes into consideration three different levels:

1. Actions for students who plan to **continue their studies**
2. Actions for students who want to **get a qualification**

3. Actions for students who have in mind to **leave school after the two-year course** (or after a regional vocational education course) **and start work**

The main **objectives** of the integrated project are:

- Promote students' awareness in the **choice of the specialised courses**, which follow the two-year guided secondary school
- Develop a **broad understanding of the particular roles and areas** of work for careers after secondary school
- Implement the **capacity to make adequate choices**
- Promote **new motivation** for students who experience difficulty in making progress

The Integrated Project

The project consisted of **four structured stages**:

1. Preliminary stage

State and regional educational bodies:

- Agree between as to the aims and main lines of the **guidance action** by in-training placements
- Integrate drafting of the **planned actions**
- Adopt a **common credit system**
- **Organize activities**

2. Planning stage

- Meetings of the project team made with teachers both from the regional agency FIL spa and Istituto F.Datini
- Drafting of the project

3. Action stage

- **Analysis of the careers** for students attending the three-year course (see Monoennio and Biennio, Figure 5.2, Chapter 5) to get their first level qualifications in economy, tourism, graphics and social sciences.
- **Drafting lists of students** together with their evaluations for all those who have not made the expected progress according to the course teachers. Teachers note down individual difficulties together with their evaluation.
- **Drawing individual in-training actions in companies** by FIL spa teachers. The placements last fifteen days and take place in a special period when lessons are stopped.
- **Contacts with companies** willing to accept in-training students.
- **Organizing the students' activities** for the fifteen days either they stay at school or start their placements under two different kind of projects:

Project 1 7

- Students attending the first year of the common basic course are divided into four groups (one each qualification course they will choose to follow in the future) and experts from outside the school help them discuss roles and careers in each sectors. The group work goes on for one day.
- Students are carrying on a series of enrichment activities, followed by teachers, to implement competence and skills they have already achieved.

Project 2 8

The project aims to renew motivation through an individualized in-training experience.

a. The projects organization provides for:

7 For students who do not have any particular learning problem.

8 For students whose difficulties have been identified by class teachers and who are likely to drop out of school.

1. A **module of class activities** to be held in the Regional Vocational Education premises to learn how a company is organized, how to evaluate an in-training experience both in itself and compared with the previous school experience.
2. **Theoretical in-training** with students observing activities in the company
3. **Final evaluation** of the experience: Students' satisfaction
 - 3.1 Follow-up of the education and guidance activities developed inside the company, referring to the objectives of the project
 - 3.2 Cost-and-benefit ratio

Con formato: Numeración y viñetas

b. The methodology involves:

1. Students will discuss their opinions and experiences as classwork. Together with teachers and tutors they are requested to prepare guides to facilitate observation and gather information, forms and grids to be used on in-training and in the interim meetings to have clear points which can help students discuss and define specific contents referring to roles and organization inside the company
2. Once in the company the student will be followed by the company tutor, as agreed with the regional vocational education tutor as far as activities, objectives, timing of the student's placement.
3. The vocational education tutor will see the student in the company every fourth day, to check the progress together with him/her and the company tutor
4. The **alternance of classwork and in-training experience allows:**
 - To **fill the gap between theory and practice**, which do youngsters frequently point out, particularly by those who are most likely to drop out, as the main difficulty to be faced to be able to continue their studies
 - To **promote students' awareness** of how important the disciplines of their curricula are
 - To **elaborate their theoretical knowledge and enhance the experience** of

being part of a productive process which requires adequate knowledge, know-how, and behaviour

- **To create a new relationship between the time of education and the time of work:** no longer two different, separate periods, the former “before work”, the latter “after school” but a necessary, complementary, continuing process of intertwining knowledge, competence and skills
- To give space to a **new approach in self-evaluation and careers planning**

c. In-training placements organization

The company accepting in-training students is chosen for each trainee according to:

- The course chosen by the student (economy, tourism, graphics or social sciences)
- Location near students’ home or within easy reach
- The student’s difficulties as noted by the course teachers
- The student’s motivation
- Personal characteristics as indicated by course teachers, shown in face-to-face contacts and in the requested self-evaluation

The draft of the individualized in-training projects requires:

- Analysis of the available companies (sector and location, see above)
- Evaluation of the educational potential of each company
- Evaluation of previous in-training placements
- Direct contacts with potential company tutors
- Meetings to ascertain the actual, psychological attitude of company tutors in following such young trainees

8. THE TRAINING PROGRAMME

8.0. The planning of in-company training

Why planning?

"Without planning the training nothing can be done", some say. "In fact, there can't be any decent training without any written training plan. It is only by means of planning that training targets can really be achieved, that organisational slacks and waste of time can be prevented. Only planning provides quality training."

Others say, "You have to show us first if this really works". "This is pure theory, we do that completely differently. We are obviously not a school but an enterprise. Planning – how shall I know how big our orders will be and how much work we will have in one month's time? On top of that, I have absolutely no time for doing such a thing. The trainee works with us, thereby he learns everything he needs anyway."

Strictly speaking there is absolutely no training without planning. Often, however, this planning is not carried out explicitly as such, but it just happens, informally, as a side product, without the tutor being aware of it.

Requirements increase, however; time pressure is getting stronger, and companies have to save. In such a situation it is often the automatic reaction to say "we have no time" and to plan even less than before. But this is, in fact, the wrong way! Planning is a means of rationalisation. The harder the situation and the bigger the permanent pressure, the more planning has to be done.

Now the question is: What are the advantages to be gained from a good planning of training? Five big advantages are discussed as examples here:

- The saving of time
- The saving of money
- The improvement of quality
- The basis for success control
- A motivation for all those involved.

The foundations of planning: the learning targets

The learning targets specify what is to be achieved in the course of the training. They form the basis for the planning of the training, the managing of the employees and the control of success in the training.

For the **planning of the training**, the learning targets give a direction and make up the "substance" of the planning.

A **modern management** works according to the principle of an agreement on targets. Agreements on training targets can be made with the apprentices and with other employees involved in the training. In addition, the training targets – as it has already been mentioned above – form the measure stick for the control of success.

In order to be able to meet all these differing requirements, it has been found useful to differentiate the following levels of learning targets:

- Reference targets;
- Overall targets;
- Fine-tuned targets.

Reference targets are phrased very generally and give the training a certain direction without indicating specific contents.

Example: "Office clerk": "Knowledge of the goods, products and/or services provided by the company".

It is usually at this level that the national regulations concerning the training in question are formulated – this leaves plenty of scope to adapt the training to company-specific circumstances.

The reference targets do not suffice for carrying out the training. They are too general. The first step for the planning of the training, therefore, consists in listing **the overall targets**.

For that purpose, concrete contents are added to the reference targets (in our above-mentioned example about the goods, products and/or services provided by the company). The question is: "What does this reference target mean in concrete terms for our occupation and our company?"

For planning the concrete implementation of the overall targets it is necessary to make targets even more precise. These are then called **fine-tuned targets**. A fine-tuned target determines, for each overall target:

- The external conditions (e.g. independently, according to recipe, mechanically, etc.) and
- The limits (e.g. accuracy of measurement, time, tolerances, outside appearance, etc.)

Therefore, in the practice-oriented in-company training these fine-tuned targets describe, as a rule, a specific **task** to be performed.

Example: The learner has to machine a metal blank on a small turning lathe with a tolerance of +/- .1 mm.

Fine-tuned targets are, thus, exact activity descriptions for the trainees. Due to the fact that for each task it can be determined if it has been fulfilled and if conditions and limits have been observed, the fine-tuned targets form the basis of success control in the training.

Accompanying planning of training

The so-called "accompanying planning of training" can be used for on-the-job training. For the accompanying planning of training tutors are explicitly made aware of their unconscious planning methods. The precisely formulated instructions in individual steps create a lot of advantages:

- The method can be imparted to all tutors.
- Its application is facilitated by practical tips.
- Planning instructions include all major elements.
- The method can be refined, discussed, modified, and combined with other planning tools.

- The advantages of an explicit planning of training (basis for success control, motivation for all those involved, arguments vis-à-vis the management) become obvious.

The special characteristics of the accompanying planning of training lie in the fact that the order of the training steps is planned regularly (= accompanying the training) in accordance with the work to be done in the company.

In contrast to that, the "traditional" course-form planning of training involves the systematic planning of the order of the training steps beforehand. This method, however, is perceived by most employers as too inflexible and as too remote from practical requirements.

Procedure in the accompanying planning of the training

The **first step** consists in the listing of the overall targets as described above.

Table 8.1

Example of a basis of planning in the form of a list of overall targets

Reference targets	Overall targets	Adequately achieved
1. Knowledge of the goods, products and/or services provided by the company	a. Knowledge of the company-specific range of TV-sets	4
	b. Knowledge of the repair and service work offered by the company	4
	c. Knowledge of ...	
	d. ...	
2. Conducting sales talks	e. Knowledge of the basic rules and tactics in connection with sales talks	
	f. Conducting sales talks in the TV-department	
	g. ...	
	h. ...	
...		

Apprentice: Occupation: Responsible tutor:
--

The **second step** consists in planning the tasks and instructions for the first days of the training beforehand. The planning of the first training days is the start of the accompanying planning. For the beginning of the training of young people an intensive personal contact with the trainees is of utmost importance. Therefore, a related involvement of staff has to be taken into consideration in the planning.

For the purpose of the accompanying planning of training, appropriate tasks for the learners are chosen from among the activities to be done in the company at the respective time. Tasks are appropriate if they:

- Correspond to the learning contents of the list of overall targets, i.e. if the training targets can be fulfilled while performing the tasks;
- Are based on what the trainees have learned so far; and if they
- Are at the suitable level of difficulty for the learners (not too easy and not too difficult).

After the trainees have fulfilled their tasks, a control of success is carried out and it is assessed whether the learning target has been met. This can then be recorded in a specific column of the list of overall targets.

When selecting the next appropriate task, it has to be taken into consideration what the trainee has learned so far. The learners are always confronted with tasks which present targets they have not sufficiently achieved yet. Training targets that cannot be covered in this way have to be planned separately (e.g. lectures in course rooms).

During the whole period of the accompanying planning of training also **the following questions have to be considered:**

- Who should the learners co-operate with and who should assist them when they need help?

- How long and how intensively should the trainees occupy themselves with a particular task? This helps to form training focuses.

8.1. Content and objectives of the training programme

The training programme stems from a dynamic process

The students' in-company training process, as well as other vocational modules that are contained within each training cycle, **is a process** with some goals and it must be **planned, executed, monitored and assessed**.

We should bear in mind that both the in-company training module teacher-tutor and the company trainer have to organise and phase this process, establish a method to achieve it and plan assessment procedures.

This planning, executing and monitoring role, usually performed with ease by the educational establishment's staff, proves to be more difficult when developed in a different environment, the company, and by actors who are "external" to the education system. However, it should not differ substantially. After all, any enterprise abides by scheduled efficiency norms that somehow they want to apply to the training programmes.

What is a training programme?

It is the document where it is stated **how a in-company training module**, that students take in a determined work place (or places) (i.e. the in-company placements), **is going to be fulfilled and assessed**.

It consists of a group of productive-training **activities** for the students and fulfilment, monitoring and assessment **procedures**.

The productive-training activities have two aims:

↑ **The training itself**, since they complement the professional competence acquired by the students in the educational establishments and increase their ability to adapt to a production environment

↑ The **assessment** and monitoring, as they recreate scenarios that will show whether the students have mastered those professional competencies they should have (not only those achieved in the work place but also the ones achieved at school)

Anyway, the training programme depends on some conditions. Among them we will highlight:

- **The organisation, the resources and the nature of the production processes** and the enterprise, where the programme takes place, services supply
- **The acquired skills, the assessment criteria and as a whole, each vocational title content**, including the expected objectives for the new vocational education specific modules such as “relations in the work environment” and “work training and guidance”
- **The educational establishment characteristics**, especially the equipment facilities, the laboratories, etc.
- **Each student’s characteristics**

The teacher-tutor has to make a **general training programme** for his students. As soon as the company is known and the technology conditions have been checked he will have to decide if the whole programme or part of it can be fulfilled in that company (**specific training programme**). That is why training programmes are specific for each company and even for each student. In other words, different companies and students require different training programmes.

The programme takes the form of a document that meets the **characteristics** shown in Table 8.2

Table 8.2

TRAINING PROGRAMME BASIC DOCUMENT

Elements	<ul style="list-style-type: none"> ➤ Activities to be developed by the trainee, can be time phased and take the form of work positions, scenarios and means. ➤ Module fulfilment, monitoring and assessment method
Requirements	<ul style="list-style-type: none"> ➤ To be entwined with the actual activity ➤ Demand an exigency standard for the students equal to that of the company workers ➤ To abide by the collective bargaining agreement ➤ To follow the security and work health regulations ➤ To be agreed with the company tutor

8.2. How a training programme is made

Who makes it?

The educational establishment **teacher-tutor**, supported by the vocational cycle educational staff, has to prepare a training programme **proposal** based upon the general programme mentioned in the previous epigraph.

The final programme making process

The **stages** for **making** the final programme (the specific programme), including the analysis of the previous information (first stage) and preparing the proposal (second stage) are summarised in Table 8.3. Then comes negotiating with the company (third stage) and making the final document (fourth stage) to which the placements real fulfilment will have to refer.

Table 8.3

THE TRAINING PROGRAMME MAKING PROCESS

Stages	Objectives	Orientations
0. Input data analysis	To gather and examine the information provided by: <ul style="list-style-type: none"> ◆ The titles content ◆ The company ◆ The educational establishment ◆ The students 	The input data concerning the workplace is of paramount importance before starting working in the proposal. These companies' features may be obtained by means of the Chambers of Commerce, if it has been provided by them, or through visiting previously the company.
1. Preparing the proposal	To make a proposal both for the activities to be carried out by the trainee and for the monitoring and assessment system .	A question must be asked at this stage: which activities should students carry out to achieve the competence stated in official curriculum?
2. Negotiating with the company and according the training programme	To agree with the enterprise the students' activities proposal	The training programme proposal is the working paper for negotiating and according the in-company training module with the company. The better discussed and agreed the training programme, the greater the employer's commitment .
3. Making the final document	To state the results in a paper or programme concerning the module development and its assessment	It must meet some conditions : <ul style="list-style-type: none"> ◆ To be realistic ◆ To be able to be achieved ◆ To be able to be tested ◆ To adapt to the settled conditions ◆ To be able to be assessed

Next we will elaborate on each stage.

Input data analysis

It would be useful to have some **information** regarding:

- ✓ Goods or services produced by the company
- ✓ Organisational structure (departments, lines, staff, etc.)

- ✓ Production processes
- ✓ Positions (number, features and profile)

Besides, to analyse the in-company training module design, to see which are its objectives (acquired skills) and to alter them if necessary, proves to be essential.

It must be **taken into account** that:

- ✓ The in-company training module content (stated in the curriculum) leads to **general activities**. The **particular activities** for the training programme stem from it and can be placed in the enterprises, the students and the educational establishments' environments.
- ✓ **The activities and requirements demanded by the assessment**, i.e. monitoring the trainees' progression, stem from the skills or objectives stated in the module.
- ✓ It may be necessary **to alter the anticipated objectives for the in-company training module** due to the specific features of the environment. For instance, an educational establishment may lack certain technical equipment whose use is compulsory if the professional competence demanded by a title profile is to be acquired. But the placement company has it so that it could be reasonable to include the corresponding activity or activities in the training programme. In this event companies and educational establishments complement each other, which strengthens the trainees' professional competence.

Preparing the proposal

The **most useful information** at this stage is:

- Knowing the company **resources and processes**
- The **title curriculum**, where the in-company training content is specified
- The **title professional profile**, mainly the activities

These activities included in the training programme should have the following features:

- To be **real, prearranged and possible**
- **To allow the decision-making process**
- **To avoid routine tasks**
- To state the **schedule**
- To facilitate the job **rotation**
- To allow and forecast **the use of the very process means**
- To allow and forecast **the use of technical information**
- **To be entwined with the company activities**, following the professional profile

Negotiating with the enterprise

From the proposal paper, the company (through the owner, the human resources head person, and the tutor himself) reports **which** of the described **activities** can be done by the students, **on which conditions** and **how** the programme can be structured and scheduled within its organisational scheme.

A paper, which will be the reference for making the final document (i.e. the training programme), should be achieved as a **result** of this approach:

- **A concrete programming** of the activities to be fulfilled by the students
- The placements **development timetable**
- The appointment of the **individual or individuals** who will act as tutor in the company (as long as the programme negotiation has not been carried out with the tutor)
- The specification of **how** the students' **monitoring** and guidance **will be done**
- The **scheduling of the teacher-tutor company visits**

- The **assessment procedures** and papers

The meeting could be taken advantage of by reminding the company of the need of **making students feel welcomed**. It is expected that the tutor will be an individual ready to give them students a warm welcome, to supply them with information, to **visit** with them **the company different facilities** that students should know, and to support and provide guidance for them at any time in a new environment.

Final document elaboration

It is the teacher-tutor task to write the final document following the models established by the corresponding education body. Nevertheless, it is advisable to check whether the conditions shown in Table 8.2 are met before ending the training programme.

A current example on a training programme is given in epigraph 8.9. It could be used as reference to prepare other programmes.

After preparing the training programme paper, the teacher-tutor will hand one copy to **the company tutor** and another to **the pupil**.

8.3 Implementation of the programme

The business world as seen by the students

In most cases, students have a very rudimentary view of what a company is. It will be adequate to explain them in the previous meetings at the educational establishment, and to remind them later, in the companies, the following:

- **What a company does**, what products are manufactured, what services are provided, what customers it aims at.
- **How it is organised**
- Which are the **formal channels of communication**

- **How many people work there and which are their profiles**
- **What is the image they want to project**
- **Their position regarding competition**

The first contact with the trainee

Besides, the educational establishment should inform students about how to face the first contact with the enterprise. Being more precise, they must be aware of the company rules concerning **personal hygiene, presence and behaviour** (dress code, uniform, etc.). Any additional information would always be useful and, at least, they should have a clear view regarding:

- The **training programme** and the assessment criteria
- **Hierarchical dependence** or organic positions inside the company
- **Work health** regulations (we will later stress how important is this section)

The best way to pass on this information to the pupil is through an interview or conversation. This first talk target is to break barriers and to inspire confidence bearing in mind that the trainee may be nervous or “tongue-tied” or may be shy. So, it must be intended:

- ┌ To achieve a **warm** atmosphere for the **meeting** avoiding it to resemble an interrogation
- ┌ **To allow** the students interrupt the chat if any doubt arises
- ┌ To obtain feedback from the student, i.e. to question him/she in order to check whether he/she has understood the basic facts
- ┌ To record all the **data that could be useful** for the placement fulfilment
- ┌ **To give the student precise** and plain **information**

Therefore, the tutor has to envisage that he will have to spend **some time welcoming the student** or students (a tutor may be in charge of more than one trainee). He may have a previous meeting with the student and the school tutors (if this one goes with the student) in case he deems it convenient.

The students or pupils positively regard placements

It is important for specific vocational training pupil (or university students) to take the in-company placement module because:

- **It means that their first training stage, in schools, has been completed**
- It is the **final part** of the course
- He has therefore to pass this module in order to **obtain the official diploma for the training cycle** that has been taken
- In most cases, this is the **first time they approach the business world**
- They know it may be an **opportunity of finding a job**

The importance of the initial motivation

Thus, the students are the primary concerned in a proper functioning of placements. In general, they feel motivated to take the placements, but it is important to keep or increase these feelings at the beginning. We can mention, among others, the following **means** that can be used **to motivate** students and commit them with the company:

- ☞ **Let the work environment** where they are going to be trained (sections or departments) **be known.**
- ☞ **To verify “in situ” whether they meet the company image rules**, otherwise to warn them
- ☞ **To introduce them to their future colleagues**
- ☞ To explain them **what to do when the company trainer is not there** and whom to approach if doubts arise

- ☞ **To state clearly which tasks** they have to perform, what is their usefulness, which tools and materials should be used and how.
- ☞ To give them the chance of **making attempts or tests**
- ☞ To warn them of the **danger situations and the security measures.**

The first contact proves to be of primary importance in order to define the future relationship between the **company tutor, as an individual and as the organisation representative** too, and the **student**. But, it must be taken into account that the main aspect to be considered of is the daily coherence and not the kind of manner (cold and serious, warm but distant, friendly, etc).

Training positions

It is important to stress the dynamic features of any training position. It would be better to talk about a company-training **route** that allows carrying out the activities relevant to the programme in different departments or sections.

When talking of countable training positions we mean the number of students that can take placements in one enterprise simultaneously, although they may follow different training programmes.

Structure of the training route

Let us remember that the **training programme has already been negotiated and accorded** by the teacher-tutor and the company tutor or trainer (or the person appointed by it).

The student has also been fully briefed and the company tutor has checked that the information sticks to what was agreed upon.

Now it is intended to make easier for the student to fulfil the expected activities in the placement period. Following this line of thought it seems reasonable to start by telling him/her **when, where and how** he/she is going to develop the proper tasks.

The **orientating example** (epigraph 8.9) may be used as a guide for other programmes.

8.4. Some pedagogical suggestions

How a student or trainee learns

The aim of the student's in-company learning process is to obtain certain **technical skills** and, mainly, to develop **personal attitudes** that foster professionalism.

The objectives will be achieved by:

- ┌ Planning a **good training programme**
- ┌ An **active learning** methodology
- ┌ The company **tutor's guidance and monitoring**

Some **pre-conditions** regarding the **student**, the **tutor**, the **programme** and the **environment** are required if a relevant learning is to be expected. Table 8.4 shows those conditions.

Table 8.4

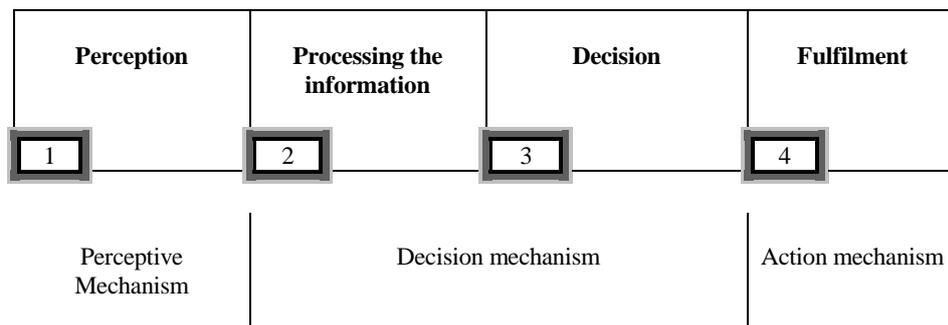
CONDITIONS REQUIRED FOR STUDENTS' LEARNING

The pupils	Able to structure his own learning process Aware of the usefulness of what is learnt
The tutor	Able to foster interest and to channel the student's doubts Enables to learn how to learn Provides the student with an overview, starting the in-company training placement without forgetting the global view
The programme	Made up of activities adjusted to the student's training and capacity Organised, consistent and adjusted to the cycle professional profile
The environment	Suitable; makes easier for the students to interact with the means With the proper means and materials

Basic scheme of learning

In any case, if the students have to carry out an action, first they have to receive information through the senses (stimulus), then process the received information, next make a decision and finally produce a response.

The suggested **basic scheme** is as follows:



The perception organises the sensations arriving at the student in need of understanding. When the data appear, they have to be decoded by the brain centres before making a decision. As soon as the information is processed, **a decision is made and there will be an act** according to it.

Self-learning is the goal

From that point onwards, the aim is to boost the student's **self-learning skill**, i.e. to learn how to learn. Self-learning guarantees that any student will take advantage of the different chances provided by companies.

The students or pupils must realise that they will be supported in fulfilling the programme activities; but also that from a certain moment they will have to face alone the work environment and that learning stems from their own behaviour towards it. Table 8.5 shows the **basic self-training process**.

Table 8.5

STUDENTS' SELF- TRAINING PROCESS

STAGES	CONTENT
1. Watching and gathering information	Selecting information Tutor explanations Knowing which people within the company can guide the students
2. Analysis and meditation	Structuring and ordering the information and the compiled data Recording in paper the fulfilled activities and the received guidance in order to force students to structure the work and to analyse the development of their training process With this aim in mind, weekly sheets, that record the students' progress, have been provided. They should be checked by the tutor so as to have a self-assessment witness
3. Fulfilment	Task fulfilment Although the students may perform some limited tasks, it is important for them to understand the whole process
4. Self-assessment	Self- assessment allows us to know the students' training degree and how they take advantage of the process. For instance: <ul style="list-style-type: none"> - To spot mistakes and weak points, to assume them and learn from them - To spot fields to be improved - To assess those improvements achieved In case a negative self-assessment results it must be considered which are the causes (internal or external factors) it may stem from: <ul style="list-style-type: none"> - The enterprise - The tutors - The environment - The timetable, etc.
5. Experiences exchange (in the company and the school)	To take advantage of the enterprise capacities. For those having a group of placement students, the experience should be checked within the same company. To gather the students in the educational establishment to exchange experiences and also to learn from others' placements. Group discussion.

Skill commanding stages

The process of commanding the skills goes through different steps. First, students imitate the actions until they achieve a certain confidence: it is the **initial commanding** stage.

With practice and recall of former experiences students will be best suited to carry out activities with a higher degree of efficiency. It is the **intermediate commanding** stage.

Once they achieve self-confidence and they are persuaded they are completely able to carry out any activity or specialised task (getting almost the same outcome in the different tries) they can already be placed in the **advanced commanding** stage.

The tasks **mastering degree** is closely related to the affective factors such as the trainees' attitude towards achieving a high standard of efficiency. It is important to persuade students of their ability to command a determined skill as well as to link the new knowledge with the fulfilment of valuable activities.

In the next epigraph we deal with the role played by attitudes in adapting to the company and enhancing trainees' professionalism layer too.

8.5. Trainees' attitudes and their adaptation to companies

Attitudes characteristics

In chapter 2 (epigraph 2.3) we have already talked about the increasing importance of some skills and new professionalism facts that are altering the professional profiles demanded by companies. That is the reason why the vocational education and training goal is not only to teach young people new techniques but also to develop other kind of skills which will lead them to be part of a productive organisation as well.

Attitudes play a key role in this kind of skills. Sometimes it is so clear that it turns to be the training process main target because a lot of adaptation and work success problems stem from not having a favourable attitude.

FP aims at changing attitudes and suiting them to job adaptation; this goal will be principally achieved by the in-company training module.

Therefore, **values and attitudes** must not be regarded as by-products but **as objectives** for the in-company training teaching and learning processes. This implies that the **attitudes content**, within the training programme, must be:

- ✓ **Clearly stated**

- ✓ Enforced through **activities that develop its learning or assimilation**

- ✓ **Assessed**

There are some **suitable techniques that may favour a change in attitudes**; some of them can be seen in Table 8.6.

Table 8.6

TECHNIQUES OR MEANS TO DEAL WITH ATTITUDES

Dialogue	It must be done on equal terms, favouring communication and starting from common criteria to approach positions in a progressive way.
Meditation	It is a non-emotional rationalisation of one's deeds. It is not a self-justification
Group discussion	If its purpose is to be useful some scenarios or context must be created or generated . They will allow students to take others' place and set a relationship frame where every opinion will be taken into account. The discussion moderator may make successive approaches , partial agreements, identifications, phase agreements, strengthening, etc.
Lifelong training	It is important to provide information about the attitudes features , to give examples, to discuss, to give meanings, to spot them in professional positions, etc.

Attitudes scope and how they have effects in business

The **family, professional and social** circles where a person places himself influence the motivations that determine his attitude.

These stimuli give way to concrete attitudes, to a character that is expressed through personality features and professional performance degree.

The influences coming from the professional environment, the one we are interested in, play an important role since the trainees' work life is just starting and it will be as demanding as their family life. Even a great number of value standards will depend on the individual's job.

The precise degree of importance of this kind of influence will especially depend on:

- └ Each job requirements

└ How the person adapts to it

Any significant learning entails familiarising oneself with attitudes and accepting new values. Therefore, it should be of paramount importance to create scenarios where students face problems concerning value conflicts, and if the new values and attitudes are considered suitable, the student could adopt and accept them. To be more precise, the intention is to **stretch scenarios where decisions have to be made**, running the risk of being wrong or not finding the right answer.

A first approach to attitudes: “prestige” and “defence”

Each person’s attitudes at work depend on the motivations and the acquired social stimuli. But two behaviours can be seen throughout the world in the work life of any individual: the **prestige attitude** and the **defence** one. Table 8.7.shows these features.

Table 8. 7

ATTITUDES AT WORK

The prestige attitude	<p>The prestige or resolute attitude appears in every new worker. Tutors should pay attention to it because a big step towards motivating students in their work life will be made as long as they boost the trainees’ attitudes, acknowledge their advances, encourage them and make them feel they are specially taken care of. On the contrary, if at the beginning of the new working life students lack of acknowledgement for their achievements they could easily adopt a non-interest attitude and it would be almost impossible to motivate them later.</p> <p>The worst attack upon the prestige attitude is to doubt or deny the prestige in front of the group.</p>
The defence attitude	<p>When this attitude appears, students are ready to justify any failure they may have. Therefore any mistake is due to partners, to the lack of means, to the teacher, or to any other circumstance and never to their own behaviour. This is a non-acknowledgement of one’s liability in failures attitude.</p>

These attitudes will be the key for the trainees’ positive **advance** in achieving the skills, depending on whether the problems that arise are considered as issues to be faced (first case) or threats to be skirted (second case).

The students expect regard and a positive appraisal for what they do. That is the reason why any worker wants his work to be acknowledged and tries to make it stand out.

Attitudes and being part of companies

Following what was suggested in chapter 2, one of the basic requirements for the new professional profiles is to be able to work within a team and to face problems with wide and integrating approaches. It demands special job adaptation and involvement **ability**.

The students' company involvement skill will depend chiefly on a series of attitudes that can be worked throughout the in-company training development. The following facts will help to assess the progress:

- ┌ **Responsibility** and work concern

- ┌ Work **quality**

- ┌ **Collaboration** spirit

- ┌ **Method**, hygiene and order

- ┌ **Attendance and punctuality**

- ┌ **Adaptation** and regulations observance

- ┌ **Interest in** enlarging the professional knowledge

- ┌ **Communication** skill

- ┌ **Autonomy**

- ┌ **Decision-making**

8.6. Incidents and conflicts

The conflicts

Let us remember that students before taking the placements have already been told at the educational establishments about the benefits and duties implied in the training programme. **They have, thus, accepted an agreement.**

Nevertheless, small disagreements concerning the company regulations, the job and the relationship with the tutor and the other workers may arise due to the students presence (Table 8.8).

Table 8.8

POSSIBLE CONFLICTS

Related to the companies rules	<p>The most common ones are:</p> <ul style="list-style-type: none"> ▪ Unpunctuality ▪ Inadequate appearance ▪ Absenteeism
Related to the own job	<p>The students' attitude towards the assigned tasks may also cause disagreements.</p>
Related to personal relations	<p>Some conflicts may arise because of the trainees' negative or demanding commitment. This attitude may even lead to relations of conflict:</p> <ul style="list-style-type: none"> ▪ With the tutor ▪ With the other workers.

The inability to solve this kind of situations (to correct persistent negative behaviours) means that students may not pass the in-company training module or that it may be the ground for rescinding the agreement between the company and the educational establishment.

If trainees were asked to comply with the school timetable and schedule, giving reasons for any incident, **they would also have to comply in a strict way with the agreed conditions** for the in-company training.

Avoiding conflicts

The following are some **suggestions** in order to avoid these small disagreements:

- ✓ To be sure that **students know the placement conditions** and the company regulations, and that they understand why they have to be obeyed
- ✓ **A daily monitoring of its compliance**

- ✓ **If a conflict or a lack of compliance is inferred, the trainees must be immediately talked to** so they know the reasons
- ✓ If the conflict continues, both the company **head or co-ordinator** for the placement implementation, if there is one, and the school **teacher-tutor should be warned**
- ✓ **To avoid conflict situations from continuing**

The last resort: rescinding the collaboration agreement

Breaking the company regulations and the lack of trainees' adaptation to the job are grounds for rescinding an agreement. These attitudes can show in:

- ┌ Reiterative lack of attendance and punctuality
- ┌ Inadequate behaviour or lack of progress in the training

It is, obviously, the final measure to be taken when the arising conflicts cannot be solved. It does not mean that possible answers have not been explored but an explanation from the student is expected.

8.7. Special modules: “Labour Environment Relations” and “Training and Guidance”

Besides in-company training other “specific” modules that help in achieving the professionalism degree demanded by each title are included in every vocational cycle. We refer to the “Labour Relations” module and the “Labour Training and Guidance” one.

The “Labour Relations” module is closely linked to what we have just said about attitudes, while the “Labour Guidance” includes valuable suggestions to look for or create a job. Whichever the case, it is important to think about the role played by in-company training in strengthening both modules content.

In-company training and work environment relations

Going back to what has been mentioned in the previous paragraph and what was advanced about the importance of the key skills, the social abilities and the attitudes, we should realise that in any cycle the in-company training module aims at training students in “acting responsibly in companies and involving themselves in the companies system of technical-professional relations”.

It becomes evident that pupils or students will neither play a leadership role in a company while the in-company training module is taken nor will be the chairpersons of any meeting. They will not either be able to have influence upon the motivation process. However, **students do use, to a certain degree, some of the skills** achieved throughout the module and because of it, it is important to state them clearly in the programme and to assess them.

It would be advisable for the training programmes of the cycles where this module is delivered, that “Labour Relations” teachers include training and assessment activities which at least may provide students with the chance of:

- Analysing their own socialisation process within the organisation
- Working in a team
- Using communication techniques
- Making small decisions
- Being an active part in meetings
- Making a short study or evaluation of motivation in the enterprise where the module has been taken and linking it to its influence upon the work environment.

This acting takes form through the following facts:

- ◇ **To arrive punctually at the work-place**, enjoying the allotted breaks and not leaving before time the tasks without any proper reason that will have been given to the person in charge

- ◇ **To understand and fulfil the instructions with diligence and initiative**, taking responsibility for the assigned task and keeping communication with the suitable person at any moment
- ◇ **To follow the companies' proceedings** and regulations, abiding by its hierarchical structure
- ◇ To stick to the work rules and procedures, taking part in **quality and productivity enhancements**
- ◇ To spot how the work will affect the activity and the achievement of the **organisation objectives**
- ◇ To keep the work surroundings with the **right degree of order and cleaning**
- ◇ **To co-ordinate** one's **activity** with the other workers in order to assess procedures and tasks allocation, giving warning of any change, outstanding need or unexpected contingency
- ◇ **To keep** fluent and correct **personal relations** with the staff
- ◇ **To show a good professional command**, fulfilling the goals and assigned tasks by sticking to priority and with work productivity and efficiency criteria
- ◇ **To accept** the remarks and suggestions received concerning one's attitude and tasks performance
- ◇ **To carry out the replacement** getting all the available data from the person replaced and transmitting the outstanding data that may arise from the in-company placement

in-company training objectives from guidance

From the guidance point of view, in-company training **should experimentally check**:

↑ **Work and contractual relations**

↑ Knowledge and skills in reference to **security and hygiene**

- ↑ Knowledge of the **companies structure and organisation**
- ↑ **Access to work and stay** procedures
- ↑ Ability to **recycle** and to take **job mobility**
- ↑ **Direct or indirect starting to work** opportunities including self-employment⁹
- ↑ **The attained competence suitability.**

8.8. In-company training and the “curricular project” of a training cycle

What is the curricular project of a training cycle?

A short remark about the “curricular project” or the training cycle will be given so the companies may have some information about it.

The curricular project is a way of **adapting each cycle objectives to the local facts** and it includes the didactic methodology, the assessment procedures, the activities to pass failed modules, the didactic materials and resources, the extra and out of school activities, etc.

What in-company training aspects must be taken into account in the training cycle curricular project

The training cycle curricular project is made by its teaching staff and decisions concerning the in-company training are made by them. Those decisions must be coherent with the school remaining training cycles curricular projects. The **pedagogical co-ordination committee** (composed by the heads of all the school departments) takes responsibility for co-ordinating the proposals from each teaching team.

⁹ Some Spanish Chambers of Commerce are organising the so-called “SCOP” (Service for Professional Guidance) which tries to help young people who have just finished their careers in looking for a job or self-employment.

Table 8.9 summarises the basic decisions about in-company training aspects in the context of each cycle curricular projects. Those decisions are included in the training programme and their treatment will “show the differences” among schools.

Table 8.9

“CURRICULAR PROJECT” DECISIONS REGARDING IN-COMPANY TRAINING

What to teach	Adapting the in-company training module goals to the production environment and the educational establishment context
When to teach	In-company training regular and non-regular fulfilment periods Criteria for developing in-company training in more than a company
How to teach	Guidelines for making the training programme that will be fulfilled in companies Co-ordination of in-company training with “Labour Relations” and “Professional Guidance” modules
What, how and when to assess	Strategies and procedures to assess and monitor in-company training In-company training promotion criteria Protocol to visit the companies
How to orientates	Criteria for giving students work guidance and information Tutor session’s organisation in the educational establishment
How to design and develop teachers training	Training needs Conventional training action Training in companies
Measures to pay attention to variety	In-company training organisation for students with special education needs

8.9. A Training Programme Example

The following Restoring programme belongs to an advanced level cycle (“**Advanced Technician in Catering**”) from the hotel trade and tourism vocational cluster (Spanish system).

The in-company-training placement span is **710 hours** that are distributed in **18 weeks**.

The trainees will rotate throughout the different restaurant departments or areas as Table 8.10 shows

Table 8.10

**TIME OVERVIEW THROUGH A TRAINING PROGRAMME
BY AREAS OR DEPARTMENTS**

AREAS OR DEPARTMENTS	WEEKS	
Foods and Drinks (15 weeks)	Kitchen and confectionery	5
	Dining room	3
	Bar and temporary points of sale (Swimming pools , discos, barbecues)	2
	Purchase / Supply / Storage ■ Perishable goods ■ Non-perishable goods	2
	Banquets	1
	Foods and Drinks	2
	Sales (Sales representative)	1
Management. Control	2	
TOTAL	18	

On the next pages long Table (Table 8.10) we can see the **training-productive activities** to be fulfilled by the trainees (first column), the precise **activities** that will be the point of reference for **assessing** the placements (second column) and the related acquired skills, i.e. **the goals to be achieved** in the context of the whole cycle training process (third column).

Table 8.10

DEVELOPMENT OF ACTIVITIES OF A TRAINING PROGRAMME

AREA OR DEPARTMENT: KITCHEN AND CONFECTIONERY (5 weeks)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To take part in the “mise en place” of the production processes (checking if the equipment works and preparing the workplace) - To understand and use daily reports - To take part in the raw materials distribution, prior to production - To check and use the making technical cards - To take part in the development of the breakfast range (pastry, small café, “room service”, etc) - To replace goods at serving temperature - To choose and carve goods - To ration, cut and chop goods - To re-use goods - To take part in the making process (in basic and in charge positions) carrying out the following activities: <ul style="list-style-type: none"> • To prepare produces • To make basic dishes • To make confectionery products • To make bakery products • To perform finishing and presentation tasks - To spot health hazards in: <ul style="list-style-type: none"> • “Stock” of raw materials (in the kitchen) • The making process - To store and preserve, if required, the products made - To take part in the delivery of products to the dining room department - To make “relevés” 	<ul style="list-style-type: none"> - To assess how products are received in the kitchen from the senses point of view - To carry out a preservation “test” for a cold storage room - To prepare a piece of meat and a fish - To make cooking samples - To make confectionery - To make a “relevé” at the end of a banquet or service - To behave responsibly and become part of the company technical-social relation system 	<ol style="list-style-type: none"> 1. To give information regarding the gastronomic variety, focusing the market, the target customers, the fixed quality standards, the nutrition and diet rules and the company economic objectives 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated rules and procedures 4. To act individually in order to produce food and drinks 6. To comply with the health and security regulations and procedures 7. To behave responsibly in the workplace and become part of the company technical-social relation system

AREA OR DEPARTMENT: DINING ROOM (3 weeks)
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PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To make ready the workplace and the food and drinks consumption area. (Supervision of decoration, room cleaning and supply, to take care of the "hardware, to revise the china, the cutlery and the glassware, to arrange the linen, to fix tables and sideboards, etc) - To check if the equipment works - To prepare internal supply vouchers for goods or produces - To replenish cold storage rooms and wine cellars - To understand and use daily reports - To keep decorating elements - To be part in the making of inventories - To fix "buffet", "self-service" or similar services - To welcome and find room for customers - To tell customers of the range of services provided by the establishment - To take orders - To perform services especially the wine related ones - To prepare dishes in front of the customers - To carve and to fillet - To pick and take away the remains - To make bills and collect the money - To collaborate in the place daily closing - To use computers for data searching, processing and transmission - To be in charge ("maitre") of the dining room using a foreign language - To work in a secondary position in the dining room using a foreign language if required. 	<ul style="list-style-type: none"> - To carry out the service, especially the wine one - To behave responsibly in the dining room - To work in a secondary position in the dining room - To fix a "buffet", self service or similar services - To assign the dining room work areas - To plan the weekly shifts - To behave responsibly and become part of the company technical-social relation system 	<ol style="list-style-type: none"> 1. To give information regarding the gastronomic variety, focusing the market, the target customers, the standard quality norms, the nutrition and diet rules and the company economic objectives 2. To apply the food and drinks products and/or services commercialisation schemes to the company communication strategy and commercial distribution 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated regulations and procedures 5. To act individually in order to carry out the catering proper motions, using a foreign language if required 6. To comply with the health and security regulations and procedures 7. To behave responsibly and become part of the company technical-social relation system

AREA OR DEPARTMENT: BAR AND TEMPORARY POINTS OF SALES (2 weeks)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To welcome and find room for the customers - To tell customers of the range of services provided by the establishment - To perform the service "mise en place" (to prepare the counter and the "central station", to supervise cleaning and decorating, to check the "hardware", to make equipment and utensils be ready, etc) - To forecast consumption - To replace goods (replenish storerooms) - To supply the goods that will be used in making dishes for the bar or the temporary points of sale - To prepare and serve alcoholic drinks - To prepare and serve non-alcoholic drinks - To control the drink consumption - To make easy dishes (sandwiches, pancakes) on the grill - To store and preserve the dishes, if required - To take part in the daily works - To perform activities regarding the drink decorating, finishing and displaying - To use computers for data searching, processing and transmission 	<ul style="list-style-type: none"> - To fill in a supply card - To record the drink consumption - To clean and tune-up a coffee maker ready to work - To prepare a cocktail - To prepare a non-alcoholic drink - To make easy dishes (sandwiches, pancakes) on the grill - To prepare weekly shifts for the staff depending on the activity - To behave responsibly and become part of the company technical-social relation system 	<ol style="list-style-type: none"> 1. To give information regarding the gastronomic variety focusing the market, the target customers, the standard quality norms, the nutrition and diet rules and the company economic objectives 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated regulations and procedures 4. To act individually in order to produce food and drinks 6. To comply with the health and security regulations and procedures 7. To behave responsibly and become part of the company technical-social relation system

AREA OR DEPARTMENT: PURCHASE/SUPPLY/STORAGE (Perishable and non-perishable goods) (2 weeks)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT CRITERIA	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To help in the purchase of goods in the market - To help in the purchase of goods to suppliers - To help in the making of supply orders specifying the quality standard and the goods commercial identification features - To receive perishable produces - To receive non-perishable goods and cleaning materials - To arrange (stock/preserve) goods in store rooms and warehouses - To spot health hazards in the process - To distribute and record the goods according to the supply orders from other departments - To produce real and non-real comparable inventories - To check if the equipment, storerooms and warehouses work properly - To take part in setting records for warehouse management - To use and maintain preservation systems and methods - To record the data from receiving-storing goods in the proper means - To prepare, fill in and hand (if necessary) papers arising from storing - To use computers for data searching, processing and transmission 	<ul style="list-style-type: none"> - To receive perishable produces - To use and maintain preservation systems and methods - To prepare, fill in and hand (if necessary) papers arising from storing - To distribute products among the production areas - To behave responsibly and become part of the company technical-social relation system 	<ol style="list-style-type: none"> 1. To give information regarding the gastronomic variety, focusing the market, the target customers, the standard quality norms, the nutrition and diet rules and the company economic objectives 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated regulations and procedures 4. To act individually in order to produce food and drinks 6. To comply with the health and security regulations and procedures 7. To behave responsibly and become part of the company technical-social relation system

AREA OR DEPARTMENT: BANQUETS (1 week)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To understand work orders in banquets - To fix the determined arrangements needed for banquets, business meals, etc - To establish protocols for special events - To be part in contracting banquets - To make budgets for banquets, business meals, etc - To organise and plan banquets or other events: <ul style="list-style-type: none"> ▪ Forecasting the furniture and materials needed ▪ Assigning the areas to be covered - To set banquets (arranging counters, "buffets", etc) - To take part in a service - To analyse a banquet production cost - To use computers for data searching, processing and transmission 	<ul style="list-style-type: none"> - To foresee the material required for a banquet - To decide the specific arrangement needed for a banquet, a business meal, etc - To develop a banquet protocol - To perform a fictitious work order from real data - To behave responsibly and become part of the company technical-social relation system 	<ol style="list-style-type: none"> 1. To give information regarding the gastronomic variety focusing the market, the target customers, the standard quality norms, the nutrition and diet rules and the company economic objectives 2. To apply the food and drinks products and/or services commercialisation schemes to the company communication strategy and commercial distribution 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated regulations and procedures 6. To comply with the health and security regulations and procedures 7. To behave responsibly in the workplace and become part of the company technical-social relation system

AREA OR DEPARTMENT: FOOD AND DRINKS (2 weeks)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To plan activities connected with catering - To plan the offers for the different points of sale - To analyse the "prime cost" - To decide which products adapt to the different offers, using quality and senses analysis - To help in the tasks allocation for daily work and special events - To analyse, check and prepare information, if needed, regarding: <ul style="list-style-type: none"> ▪ The work routine and steps ▪ Procedures and means to control the making process ▪ Procedures for goods and products receiving, storage and distribution - To be part in the analysis and making of the "Goods technical specifications cards" and the "Technical manufacturing cards" - To get statistic data and make reports - To anticipate the goods quantitative and qualitative demand according to the expected production - To design the food and drinks making and/or service offer - To use computers for data searching, processing and transmission 	<ul style="list-style-type: none"> - To anticipate the goods qualitative and quantitative demand according to the expected production volume for a determined span of time - To pick random samples of a perishable good - To prepare a specific offer for a determined point of sale - To make a fictitious work order - To behave responsibly and become part of the company technical-social relation system 	<ol style="list-style-type: none"> 1. To give information regarding the gastronomic variety focusing the market, the target customers, the standard quality norms, the nutrition and diet rules and the company economic objectives 2. To apply the food and drinks products and/or services commercialisation schemes to the company communication strategy and commercial distribution 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated regulations and procedures 6. To comply with the health and security regulations and procedures 7. To behave responsibly in the workplace and become part of the company technical-social relation system

AREA OR DEPARTMENT: SALES REPRESENTATIVE (1 week)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To prepare and fulfil advertising and promotion deeds, using a foreign language if needed - To evaluate the cost and efficiency of the advertising and promotion deeds - To plan and adapt conventional means to promote the offer (letters, menus, "displays", etc) - To evaluate existing surveys and measure their value - To make external sales of banquets and services - To use computers for data searching, processing and transmission - To get statistical data and make reports 	<ul style="list-style-type: none"> - To assess the cost and efficiency of an advertising and/or promotion act for the point of sale - To fulfil a promotion deed, using a foreign language if needed - To evaluate an existing surveys and measure its value - To perform the sale of a banquet and an external service - To behave responsibly and become part of the company technical-social relation system 	<ul style="list-style-type: none"> 2. To apply the food and drinks products and/or services commercialisation schemes to the company communication strategy and commercial distribution 6. To comply with the health and security regulations and procedures 7. To behave responsibly in the workplace and become part of the company technical-social relation system

AREA OR DEPARTMENT: MANAGEMENT. CONTROL (2 weeks)		
PRODUCTIVE TRAINING ACTIVITIES	ASSESSMENT ACTIVITIES	RELATED ACQUIRED SKILLS
<ul style="list-style-type: none"> - To analyse the food and drinks sales - To be part in the production daily closing and in the settlement of the cash - To check personally the goods - To check the storage consumption according to T. P. V. - To control and compare the customers' bills data - To monitor the costs structure - To watch how standard and cost prices for the range of foods and drinks are fixed, and to act if required - To watch how selling prices are fixed, and to act if required - To estimate the real and the standard costs for goods - To calculate margins arising from production costs - To make financial analysis in relation to: financial ratios, purchase and stocks and area or premises activity, turns and profitability indexes - To watch how budgets for customers are made, and to act if required - To make indirect taxes settlements - To use computers for data searching, processing and transmission - To get statistical data and make reports 	<ul style="list-style-type: none"> - To see which are the peak and the off-peak times in the different points of sale - To make an indirect taxes settlement - To prepare a financial basic budget - To calculate the profitability threshold - To understand balances sheet and make a report - To behave responsibly and become part of the company technical-social relation system 	<ul style="list-style-type: none"> 2. To apply the food and drinks products and/or services commercialisation schemes to the company communication strategy and commercial distribution 3. To define (under outcome supervision) the information concerning the supply, production and service of food and drinks, bearing in mind the kind of company, the means and the stated regulations and procedures 6. To comply with the health and security regulations and procedures 7. To behave responsibly in the workplace and become part of the company technical-social relation system

8.10. Some remarks concerning the Dual System in Austria

8.10.1. Apprenticeship trades

The majority of young people already apply for an apprenticeship post before the end of their compulsory school period. After their successful application the person entitled to teach and the apprentice and/or also his/her legal representative conclude a written Apprenticeship Contract in accordance with the Vocational Training Act.

The Apprenticeship Contract

The signed Apprenticeship Contract must be presented to the Apprenticeship Office so that it can be put on record as soon as possible. The Apprenticeship Office examines the data given in the Apprenticeship Contract and the qualification of the training company as well as recognisable job-related training periods. The recording of the Apprenticeship Contract is the prerequisite for the teenager's later admission to the apprenticeship-leave examination.

The apprentice receives an apprenticeship remuneration. According to the Vocational Training Act it has to be in agreement with the remuneration usually paid in the respective area or the pay in comparable apprenticeship trades.

Training regulations

The apprenticeship trades recognised by the State are specified in the List of Apprenticeship Trades, a regulation based on the Vocational Training Act. In this List are also regulated the apprenticeship period and the relation to other apprenticeship trades, including the mode of recognition. Currently there are 250 recognised apprenticeship trades. Their number has been reduced drastically since 1970 by combining different apprenticeship trades.

For the individual apprenticeship trades, the Minister for Economic Affairs adopts the training regulations.

The regulations from the Vocational Training Act are compulsory for the training at the training enterprises. In each one of the training regulations the specific occupational image of

the respective apprenticeship trade is determined. The so-called occupational image comprises the basic knowledge, qualifications and skills imparted during the training for an apprenticeship trade in a catalogue broken down by apprenticeship years.

Depending on the apprenticeship trade chosen, training lasts between two and four years. This is fixed in the List of Apprenticeship Trades. There is the possibility to shorten the apprenticeship period. This applies to persons who have already acquired job-specific education and training in related apprenticeship trades or in subject-related school careers.

This ensures a close connection to the curriculum of the respective vocational school for apprentices and offers the training enterprises a help for the content and time-related design of the training.

2. Administration and office organisation

Pos.	1 st year	2 nd year	3 rd year
2.1	Administration		
2.1.1	Knowledge of the organisational set-up and the tasks and responsibilities in the company's administration		-
	Knowledge of in-company work processes		
2.1.2			
2.1.3	Related commercial correspondence, handling of incoming mail, outgoing mail, filing, updating and storing of files		Handling of forms and blanks
2.1.4	Knowledge about the preparations for and the keeping of statistics, card-indexes and files		-
2.1.5	-	Administration of card-indexes and files	
2.1.6	-	-	Basic knowledge about business risks, their insurance possibilities and about notices of claim
2.1.7	Basic knowledge about the contact with the authorities, social insurance institutions and employers' and employees' organisations that are most important for the training enterprise and the apprentice	-	-
2.1.8	-	Knowledge of the company-specific treatment of complaints and the behaviour in case of complaints	
2.1.9	-	Basic knowledge about the transport by train, post and other means of transport and ways of communication	

2.2	Office organisation		
2.2.1	-	Compilation and evaluation of reports, formulation of documents and letters	
2.2.2	-	Taking dictations and writing on the basis of general information; writing of standard letters; filling in of forms	
2.2.3	Adequate use and servicing of the company's technical office organisation equipment and work tools, as well as the means of communication used		
2.2.4	Language- and subject-appropriate expression, holding of adequate discussions		
2.2.5	Basic knowledge about the structure of the company's EDP (application and tasks of EDP in the business organisation)	-	-
2.2.6	-	Knowledge and application of the company's EDP (hardware, software, operating systems)	
2.2.7	-	Carrying out of workplace-specific EDP applications (such as data processing, calculation, bookkeeping, observation of appointments, filing), basic knowledge of the development of new workplace-specific EDP-applications	

3. Acquisition and offer (material, goods, services)

Pos.	1 st year	2 nd year	3 rd year
3.1	Acquisition		
3.1.1	Basic knowledge about the branch -and company- specific acquisition possibilities as well as of the determination of demand	Knowledge about the branch - and company- specific acquisition possibilities and the organisational procedure in acquisition	-
3.1.2	-	-	Co-operation in the determination of the demand
3.1.3	-	Preparation of and co-operation in orders (equipment, goods, services)	Carrying out of orders
3.1.4	-	Keeping account of delivery dates	Steps to be taken in case of delays in delivery
3.1.5	-	Solicitation, handling and examination of offers; examination of acknowledgements of orders	
3.1.6	-	Knowledge about important agreements in connection with acquisition such as purchasing conditions, terms of delivery and payment	
3.1.7	-	Basic knowledge about the company-specific purchasing-related legal provisions	
3.2	Offers		
3.2.1	Knowledge of the goods, products and/or services provided by the company		
3.2.2	Knowledge of the branch-specific labelling of goods, of the standards and product declaration and framework conditions for the service offer		
3.2.3	-	Co-operation in the compilation of offers and/or information from the company-specific service offer	

3.2.4	Knowledge of the adequate behaviour vis-à-vis principals, agents, customers, contracting parties and clients	
3.2.5	-	Co-operation in the acknowledgement and handling of orders
3.2.6	Basic knowledge about the company's sales-related legal provisions	

4. Business accounting

Pos.	1 st year	2 nd year	3 rd year
4.1	Cost accounting and calculation		
4.1.1	-	Basic knowledge about the company's costs, how they can be influenced and their effects on profitability	
4.1.2	-	-	Knowledge of cost accounting
4.1.3	-	Co-operation in calculation activities	
4.2	Taxes, duties and rates		
4.2.1	-	-	Basic knowledge about the company's taxes, duties and rates
4.3	Accounting		
4.3.1	Basic knowledge about tasks and function of business accounting	Knowledge about tasks and function of business accounting	
4.3.2	-	Basic knowledge about computer-assisted processes in business accounting	Knowledge about computer-assisted processes in business accounting
4.3.3	-	-	Basic knowledge of wage and salary accounting
4.3.4	Carrying out of different types of business accounting, compilation, examination and control of data		
4.3.5	Preparation of supporting documents for invoicing		-
4.3.6	-	Invoicing	
4.4	Payment transactions		
4.4.1	-	Knowledge of the payment transactions with suppliers, customers, authorities, the post office, and finance and credit institutions	
4.4.2	-	Co-operation in payment transactions	
4.4.3	-	-	Knowledge of the company's usage regarding procedures in case of delays in payment, carrying out of simple related work
4.5	Bookkeeping		
4.5.1	Basic knowledge about the business-related bookkeeping and the company's booking documents	-	-

4.5.2	-	Business-related booking activities and drawing up of evaluations and statistics
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Source: Bundesgesetzblatt (Austrian Federal Law Gazette). No. 376/1990

Table 8.12

**Excerpts from the Training Ordinance Hairdresser and Wigmaker (Stylist)
OCCUPATIONAL IMAGE**

Pos.	1 st year	2 nd year	3 rd year
1	Introduction in the company's structure and organisation	-	-
2	Knowledge of the materials, auxiliary means and goods of the field in question and their properties, functioning and application possibilities, as well as their appropriate disposal; basic knowledge about the biology, chemistry and physics involved in the subject matter		
3	Handling, maintenance, storing of the tools and appliances to be used		
4	Disinfecting of the tools and appliances to be used	-	-
5	Job-related communication, dealing with customers, counselling and sales talks	Job-related communication, professional, personality-related counselling and sales talks	
6	Knowledge of the hair, the skin and nails, their structure and function; recognition of the major skin types such as normal, dry, greasy and mixed skin	Knowledge of hair, skin and nail diseases; knowledge of their causes and possibilities of treatment	
7	Skin and hair diagnosis, Head massage	-	-
8	Knowledge of and skills in connection with the cleaning of skin and hair	Knowledge of and skills in connection with hair care	
9	Basic knowledge about and preliminary exercises for hair cutting using different techniques	Knowledge and skills in connection with hair cutting using different techniques, also on a dummy head	Knowledge and skills in fashionable haircuts using different techniques, application on the customer
10	Basic knowledge of shaving, the connected facial care as well as handling of the shaving knife	Knowledge and skills in connection with shaving, facial care and beard cutting	Knowledge and skills in connection with beard dyeing
11	Carrying out of relaxation massages as preparatory work for decorative cosmetics (make-up) and shaving	Laying on of hot and cold compresses and packs as preparatory work for make-up and shaving	

12	Knowledge and skills in connection with fixing and curling exercises for permanent waves, also on a dummy head	Creation of permanent waves using different curling techniques	Creation of permanent waves using different curling techniques on the customer
13	Knowledge about the different laying and blow drying techniques, such as hand-laid water waves, different types of curlers, etc., and brushing techniques	Application of the different laying and blow drying techniques on the dummy head and on the customer	Application of the different laying and blow drying techniques on the customer
14	Designing of simple hairstyles also on a dummy head	Designing of fashionable hairstyles also on a dummy head	Designing of hairstyles also using artificial pieces of hair and hair decoration on the customer
15	Knowledge of the different techniques of brushing (hair finish)	Carrying out of the hair finish taking into consideration the techniques and products of the respective fashion also on a dummy head	Carrying out of the hair finish taking into consideration the fashion techniques and products on the customer
16	Basic knowledge of chromatics and their optical effect also with regard to hair colours	Knowledge of chromatics and skills leading to a change in the hair colour	Carrying out of dyeing and toning on the customer
17	Knowledge and skills in connection with the dyeing of eyebrows and lashes	Knowledge and skills in connection with the dyeing of eyebrows and lashes as well as shaping of the eyebrows	Creation of make-up
18	Knowledge and skills in connection with nail care	Carrying out of the nail care including removal and application of nail varnish	
19	-	Knowledge of braiding, knotting, meshing, sewing and tambouring	Braiding, knotting, meshing, sewing and tambouring
20	-	Knowledge of cleaning, care and brushing of wigs and artificial pieces of hair	Cleaning, care and brushing of wigs and artificial pieces of hair as well as the making of artificial pieces of hair
21	-	Knowledge and application of make-up under use of branch-specific materials	
22	Knowledge of the pertinent safety regulations as well as the other pertinent regulations for the protection of life, health and the environment; knowledge about job-specific health-related stress and possibilities of its restriction and prevention		
23	Knowledge about first aid in case of minor burns and cuts		

24	Knowledge of the obligations resulting from the Apprenticeship Contract (sections 9 and 10 Vocational Training Act)
25	Basic knowledge of the labour-law related regulations that must be displayed publicly

Source: Bundesgesetzblatt (Austrian Federal Law Gazette), No. 636/1996

Table 8.13

Excerpts from the Training Ordinance Plumber and fitter for sanitary and heating installations

Gas and water-pipe installation

Occupational profile¹⁰

1. Equipment of the working place.
2. Reading and practical application of technical supporting documents.,
3. Determination of the steps, work equipment and working techniques.
4. Professional selection, acquisition and examination of the required materials.
5. Fault finding and fault elimination.
6. Connection, assembly, adjustment and examination of pipe systems and pipe connections incl. off-take installations, safety installations and shut-off equipment.
7. Mounting, assembly, examination and servicing of gas consumption installations, of water supply installations and of waste water installations.
8. Servicing and maintenance of pipeline systems and control systems
9. Customer care.
10. Doing work taking into consideration related safety and environmental standards.
11. Compilation of technical data on the workflow, the results of the work, the tests and checks.

Pos.	1 st year	2 nd year	3 rd year
1.	Handling and maintenance of the relevant equipment, tools, machines and appliances		
2.	Knowledge of the process materials, of their properties, application and treatment possibilities		
3.	Sawing	-	-
4.	Measuring	-	-
5.	Marking	-	-
6.	Filing	-	-
7.	Cutting	-	-
8.	Grinding and sharpening	-	-
9.	Drilling and counterboring	-	-
10.	Cutting of threads	Cutting of machine threads	-
11.	Soft soldering	Soft and hard soldering	-

¹⁰ Since 1996 the occupational images in the training ordinances of new apprenticeship trades and of new regulations of apprenticeship trades are preceded by the so-called occupational profiles. These describe the major activities of a skilled worker after the end of his/her training.

12.	-	Gas (oxyacetylene) welding	Gas (oxyacetylene) welding in constrained position (M 7807)
13.	-	-	Simple electric welding
14.	-	-	Oxygen cutting
15.	Cold bending and levelling of pipes	Hot bending and levelling of pipes	-
16.	Carrying out of pipe connections, junctions and mouldings with subject-pertinent materials		
17.	Gluing and welding of plastic pipes		-
18.	Connection of pipe systems for supply, disposal, waste gas, including the assembly of relevant shut-off and off-take installations		
19.	Basic knowledge about the expansion of pipelines and the steps required in pipe laying	Knowledge about the expansion of pipelines; steps in pipe laying	-
20.	Carrying out of leak and pressure tests	Carrying out of function tests and measuring of quantities of liquids and pressures	
21.	Knowledge about the servicing and maintenance of gas appliances and water supply installations, hot water and sanitary installations	Servicing and maintenance of gas appliances and water supply installations, hot water and sanitary installations; finding, assessing and handling of faults	
22.	Protection and insulation of pipes and checking	-	-
23.	Knowledge about the setting up, connecting and putting into operation of gas appliances and water supply installations, as well as hot water and sanitary installations	Setting up, connecting and putting into operation gas appliances and water supply installations, as well as hot water and sanitary installations	
24.	-	Adjustment of gas appliances	
25.	Reading of installation and assembly instructions	Reading of plans of installations and assembly	
26.	Reading and drawing of simple installation; assembly and measurement drawings	Reading and drawing of installation; assembly and measurement drawings	
27.	-	-	Writing of technical reports and operating instructions
28.	-	Knowledge of the properties and use of different flammable gases	
29.	-	Knowledge of the functioning and installation possibilities of gas, water and hot water appliances	
30.	-	Knowledge and application of major measurement, test, safety and control systems	
31.	-	Knowledge and application of waste water installations and systems	

32.	-	Knowledge and application of water treatment, filtering and cleaning	
33.	-	Knowledge about sound insulation and the insulation of cold and hot water systems and drainage systems	
34.	-	Knowledge of the protective measures against inner and outer destruction of pipelines and appliances	
35.	-	Knowledge of the design, functioning and adjustment of fittings	
36.	-	Knowledge about hot water production and distribution	
37.	-	Knowledge about pipe dimensions	
38.	-	-	Knowledge about sprinkling installations
39.	-	-	Knowledge about prefabrication
40.	--	Knowledge about the use of gas consumption installations	
41.	Knowledge of the pertinent technical regulations and safety regulations		
42.	Basic knowledge about the hazards of electricity		
43.	-	-	Basic knowledge of hygiene
44.	-	-	Basic knowledge of hydraulics
45.	Basic knowledge about alternative forms of energy		
46.	Knowledge and application of English technical terms		
47.	Knowledge about customer-oriented behaviour		
48.	-	-	Basic knowledge about sales-oriented behaviour
49.	Basic knowledge about quality assurance		
49.	The measures and regulations regarding the protection of the environment relevant for the apprenticeship trade: Basic knowledge of the company's measures for the sensible use of energy in the job-relevant field of work; basic knowledge about the residual substances produced in the job-relevant field of work and about their separation and recycling, as well as about waste disposal		
50.	Knowledge of the pertinent safety regulations and protective measures and of other connected regulations and measures for the protection of life and health		
51.	Knowledge of the obligations resulting from the Apprenticeship Contract (sections 9 and 10 Vocational Training Act)		
52.	Basic knowledge of the labour-law related regulations that must be displayed publicly		

Source: Bundesgesetzblatt (Austrian Federal Law Gazette). II No. 269/1997

When formulating the concrete training contents it always has to be kept in mind that the qualification requirements are subject to continuous changes. Therefore the individual contents of the occupational images are not specified statically, but are designed dynamically in a way that the training enterprises can carry out adjustments to new technological and work-organisational developments as fast as possible. The new training regulations comprise modern, complex professional requirements as well, such as the optimisation of activities and quality assurance.

8.11. The Training Program

General

New or modified jobs frequently create demand for training. In the field of manufacturing industry, designed and equipped for high reliability, the complexity and demand on availability require a high quality of operation and maintenance manpower.

Within the school sector, as within the industrial and other sectors of the society, educational planning is usually based on the experiences of a few individuals, with the subsequent risk that the decisions may be made on extremely unreliable ground. For many years, vocational training and technical education programmes often have been carried out without sufficient adaptation and modification to suit the local industry requirements and conditions. Consequently, many persons have been trained in skill and standards which do not meet the requirements needs of particular jobs and employment situations.

Development of industrial training programmes

The planning of in-company training has to be based on detailed assessment of present and expected performance of operatives, machines and organisation. Operation analysis will expose shortcomings in preventive maintenance and repair; function of the machines; material flow and load on the machines, logistics and ergonomics in connection with handling of material; and service of the machines. Operation review may even reveal that if conditions for production are improved, any further retraining of operatives is not necessary, only reorganisation of the administration. Training need appreciation may in this way

become a most important tool also for eventual investment planning.

Means and ways for in-company training

There is a long list of in-company training activities aimed at:

- individuals or groups of employees
- beginners or more or less experienced personnel,
- execution of a single job or, for wider understanding, of a comprehensive process
- learning machines operation or machines maintenance,
- learning directly at the production machines (for a whole branch of the industry or for a certain category of personnel): centrally, within the company's premises; institutionally, outside the company.

The following examples of in-company training should be subject to further elaboration and clearance, also in respect of terminology:

- | on-the-job instruction
- | on-the-job training
- | apprenticeship training
- | next job training
- | up-grading training
- | promotion training
- | supervisor training
- | management training
- | maintenance technician training
- | instructor training
- | training officer training
- | inspector training

The list, which could be extended, shows the variety of in-company training to be offered, and also the selective character of training, giving the opportunity to impart just the necessary knowledge and skill needed for defined jobs, in a minimum of time, without too much interruption of normal production.

“Integrated in-company training and productivity development” prepared especially for newly graduated engineers and technicians, are essential before they take up responsible positions in industry. The system of “learning during production” should be applied as much as possible for saving costs and facing the trainees to realistic conditions.

Some pedagogical hints

Teachers and instructors are key personnel who, indirectly, exercise a considerable effect upon a nation’s industrial training programmes. They are a vital link between people they train and an industry in constant need of human resource development and skill. A good industrial training programme depends on good teaching staff.

The main qualities and skills which teachers and instructors must endeavour to attain are:

- | A sound knowledge of their subject matter
- | Suitable personal qualities which include enthusiasm, drive, patience, tact and authority
- | Skill in the application of proven instructional techniques, and ability to present and communicate information effectively

How to solve problems

Specialists should be assisting the Ministries of Education and Industry to introduce effective education planning and plan evaluation techniques, including forecasting of future capacity needs, school location planning and the development of education statistics.

The authorities should support education and training objectives, which are to improve the quality and capacity of the education and training system to meet the high demand for educated and highly skilled manpower.

Additional technical assistance will be included to assist the Ministry of Education to improve planning, cost control and management of the education and training system and to support the development of economical and technical education and vocational training. Measures intended to improve quality of education include the development and provision of more and appropriate equipment and materials.

Development in the field of teaching aids and instructional materials is not just a job for State institutions. Every establishment with internal training programmes must endeavour to support training and advanced training of the teaching staff, and also to provide appropriate courses. This includes the development, manufacturing and provision of suitable teaching and learning aids.

Surveys and analyses should proceed to ensure that the training is closely related to the special working conditions and atmosphere, as well as gathering information on manpower levels and requirements. Improvement in teaching methods, including new ways of learning, must be reached through studies of the requirements of the individual trainee. This means that his/her attitudes, interests, personal needs, the environment he/she is taught, equipment and materials he/she works with, must be considered.

To define the goals

Vocational training has two main goals. It paves the way to successful careers and creates a skilled working force for the country. Through experience we find that there is a close link between training and career prospects.

An essential part of the vocational training is character formation, training of young men in habits of thought and character to make them feel proud of their work and to develop a sense of team work and loyalty to the country and the own establishment.

Quality standards and training goals

All in-company training should aim not only at certain productivity targets but also at identified quality standards of products or process output. The quality standards required have in turn to be identified from the market demands, and may become the determining factor when producing items for export. The tolerances and quality standards may be indicated by measuring figures, by description, by pictures and by samples.

To achieve key education and training goals, the following should be considered:

to improve the quality of primary and preparatory schooling through increased provision of teacher training;

- | to increase the capacity and quality of secondary education;
- | to provide increased education and training opportunities for girls;
- | to improve planning, management, and financial procedures in the Ministry;
- | to modify occupational descriptions to cope with the modern technologies;
- | to periodically evaluate the training programmes;
- | to develop trade tests; to study the effects of the training on the course manpower structure and the distribution of skills, either at the establishment level or at other levels; and to provide consultation in the area of identified training needs.

Acceptance by the trainees

Various forms of incentives have to be explored, developed and presented to make trainee's perceive the advantage of training, e.g. increased earning power, improved social status and personal satisfaction, promotion possibilities.

Remunerative incentives may require a review of the payment system. Improvement of social status may require further grading of training content, extent and targets in academic terms. Introduction of an improved promotion system may require an official recognition of identifiable vocational training as part of the educational pattern, and a revaluation of manual skills, know-how and experience versus academic qualifications.

The union's acceptance

It is envisaged that industry union branches have to be approached and sometimes strengthened, and branch training committees formed. Co-operation with and contribution from international organisations such as ILO and UNIDO is possible.

Linking of in-company training with

- productivity development,
- technology appreciation,
- investment planning, and
- export promotion

may be outlined in circular letters as a preparation for a personnel approach.

Assistance will also be provided for the setting up of group training schemes for groups of smaller firms that individually do not have the resources to mount satisfactory comprehensive training programmes.

To support the on-the-job training of training officers, supervisors and the related training of the Department staff, overseas training and assignments should be given priority.

To provide promotion training programmes following individual career plans for executive management, middle management and for supervisors.

9. MONITORING AND ASSESSMENT

9.1. What should be assessed

Previous data to be considered

Assessing any kind of work is always a complex task.. This complexity is greater when the object of the assessment is a process. For example, in the case of training we have to measure not only the final outcome of knowledge or performances but also the students' attitude and predisposition to learn and solve unexpected problems. We have to bear in mind that students taking vocational education will have to face the main challenge of adapting to the technological changes or, at least, they will have to face the various events which may happen at any time during their production cycle.

It is thus interesting to design the best possible plan, based on three principles or criteria:

- * it has to be **simple**;
- * it has to allow **comparability** through measurable indicators;
- * it has to be easily **clustered**,

without detriment to the educational authority's instructions or suggestions (especially teachers-tutors).

Assessment contents

in-company training assessment does not restrict to evaluate the **technical performance** of the student carrying out the in-company training, attitudes training included. It has **supplementary objectives** that have an effect on the **process** itself, **the other modules' content** and the work insertion that is the final outcome of the **vocational training**.

Due to the latter, within assessment, **several aspects** have to be thought of:

- ┌ The **students' learning process**

- Have they attained the in-company training expected **targets**

└ The **training process** which enables students to learn:

- Is the **company-tutor's and school tutors' contribution** satisfactory?
- Have the **activities completed and verified what has been learnt** in the other modules?

└ The **work insertion degree**:

- How many students has the company employed after finishing the training placement?
- How many students are working **after a lapse of time**?
- Of these, how many are working in a **job related to their vocational title profile**?

In other words, the assessment aim is to verify some aspects which affect the student and the process (Table 9.1) -the individual aspects and the global ones- and which may have a static or dynamic time dimension.

Table 9.1

WHAT TO ASSESS IN IN-COMPANY TRAINING

About the trainee	<ul style="list-style-type: none"> ◆ They know what to do, i.e. the professional competence, expressed by: <ul style="list-style-type: none"> - Technical knowledge and ability to assimilate. - Performances. - Attitudes, rules and values stated in the curricular design. ◆ Work insertion
About the process	<ul style="list-style-type: none"> ◆ The selection of enterprises ◆ The development of the training programme ◆ The monitoring of activities ◆ The degree of the company involvement ◆ Work insertion

It means there are several types of assessment according to their objectives. These can be summarised in two:

- ◇ **Individual assessment**: the one that focuses individual aspects of every student.

◇ **Global assessment:** the one that takes into account global aspects or results.

As far as individual assessment is concerned, we may as well distinguish between those aspects linked to **specific activities or performances** and those **more generic** that provide a synthetic idea of the attained outcome.

9.2. Who assesses

All the actors involved in in-company training (educational bodies, schools, companies, intervening organisations) participate in the assessment. Each of them with different levels of responsibility, depending on the type of assessment (individual or global).

Who makes the individual assessment?

The main actors in the individual assessment are the **company-tutor** and the **school tutor**, being the latter the ultimate responsible once the former has made his proposals.

However, it must be stressed that the company-tutor has a special leading role in the so-called **technical assessment**, which is dealt with later, since he possesses more analysis and judgement elements.

The company-tutor's assessment role is also going to be of paramount importance in the **individual evaluation of synthetic character**, although the school tutor has the final say.

Who makes the global assessment?

Educational bodies and the **business organisations or corporations**, which are the link between the schools and the enterprises, make the global assessment.

Nevertheless, we shall not forget that **there could not be a quality global assessment without an accurate individual assessment**. Hence the importance of the teacher-tutor and the company-tutor role in the whole process.

9.3. Individual assessment of technical character

Activities to be considered:

The assessment of the strictly technical aspects, i.e. the specific activities carried out by the students, may entail a certain difficulty, as enterprises usually have no experience in this function. This is why the procedure has been simplified to the utmost. How? Suggesting a group of activities to be assessed that, although they are not different from those stated in the training programme, will show clearly the students' competence. It has been done so in the example of epigraph 8.9 in the former chapter (Table 8.10, second column).

The evidence of professional outcome allows us to infer the individuals' competence, which in its turn, implies the ability to fulfil and obtain results with real equipment and situations.

Nevertheless, **two premises** must be the starting point for this assessment:

- **What is being learnt during the placement is not assessed isolatedly:** the competence to be assessed has been acquired both in the educational establishment and in the enterprise (or even outside them both).
- **Not everything learnt during the placement is assessed:** it cannot be nor should be assessed the whole competence attained in the companies.

How to select the activities for the assessment

We have to choose **those productive activities that show the success in achieving** the most representative **competencies**:

- └ **In normal conditions**, the assessment activities will not differ from those fulfilled at the company. They are part of the training programme list of activities. For every activity, a set of observable and measurable criteria is established. This way, the company-tutor can be asked to verify if these criteria have been attained or not (**observation protocol**)

↳ If specific assessment activities are raised, different from those habitual in the daily routine, it is either because they require from the students a special autonomy of fulfilment and can only be evaluated in a situation created “**on purpose**”, or because some productive activities in the company show some assessment difficulties.

The assessment activities are necessary to apply the competence assessment criteria. They differ from the other activities for being more representative and for showing more clearly the students improvement in the enterprise. They also show the acquired competencies in the educational establishment, as they place the students in a real work situation.

Activities selection and assessment criteria. An example

Let us suppose that the following training programme in the intermediate cycle of “**Made-to-measure furniture and installation**” belonging to the carpentry and furniture cluster has been proposed:

Activity 1.- Sanding with portable machines, using the right abrasive

Activity 2.- Spotting the faults in a wrong sand

Activity 3.- Mechanical sanding of flat objects

Activity 4.- Selecting dyes for specific colouring

Activity 5.- Using self-protection equipment

Activity 3 is considered as specially meaningful and thus it is selected as “assessment activity”, being then some “assessment criteria” defined for it, i.e. providing some concrete outcomes (Table 9.2).

Table 9.2

ACTIVITY AND ASSESSMENT CRITERIA EXAMPLE

ACTIVITY	ASSESSMENT CRITERIA	YES	NO
<ul style="list-style-type: none"> ▪ Mechanical sanding of flat objects 	o To handle fluently the sanding machine controls	X	
	o To verify the thickness and feed speed parameters	X	X
	o To use appropriate weight bands	X	
	o To keep clean the work place		
	o To control the gauge	X	

Activity assessment keys

However interesting an assessment of a wide range of possibilities may be (typical scale from 0 to 10), in this case it is enough to reflect one out of the two following options:

- . Successful performance (YES)
- . Not enough evidence of competence (NO)

9.4. Individual assessment of synthetic character ¹¹

There are three main areas or dimensions (see Table 9.1- epigraph 9.1) presented according to the **individual assessment** within a wider range which summarises further professionalism features (both theoretical and attitudinal):

- ◆ Cognitive or assimilative **ability**, only partially showed in the previous approach.
- ◆ Working **ability**, mainly verified from the same approach in the Table 9.2 example.

¹¹ Recent reports on abilities have been used for this purpose. One of them has been carried out by Siemens AG and the German Ministry of Education in 1990, under the acronym of "PETRA". In the UK they have tried similar approaches which have been taken into account when designing the curricula of the Spanish vocational training system. We try to elaborate a system of easy application that allows us to analyse the most relevant characteristics of students' professional profiles of initial training. This analysis can also be applied to situations of continuous training.

- ◆ The attitude towards the challenges throughout the in-company placement. The previous approach hardly offers any information.

The competence concept

The competence itself has several dimensions whose values add to the configuration of an objective view of the **students' potential technical ability**. It includes:

- ┌ The degree of **theoretical knowledge**

- ┌ The ability to **assimilate and follow instructions**:
 - ◆ Oral
 - ◆ Written
 - ◆ Symbolical

Thus, competence covers from the theoretical knowledge learnt at the educational establishment (former academic background) to the open or receptive nature the students develop during their placement.

To evaluate each of the above-mentioned competence dimensions, knowledge **indicators** are needed, as well as those of understanding, assimilation and fulfilment of the tutor's instructions. Somehow, a good answer to these instructions shows an adequate level of knowledge, which is translated, within the oral or written codes, in symbols interpretation that simplifies the transfer, such as mathematical or chemical formulae, diagrams, computing programs, etc.

Table 9.3 summarises the assessment indicators or factors, together with a numerical proposal of different degrees (which will be commented later on).

Table 9.3

POSSIBLE ASSESSMENT FACTORS OF TECHNIQUE COMPETENCE

INDICATOR	VALUATION				
	10	8	6	4	2 or 0
Theoretical knowledge	Very High	High	Acceptable	Low	Very low or null
Assimilation and fulfilment of verbal instructions	He/she does not need repetition or clarification	He/she needs some repetition or clarification	He/she needs repetition or clarification with certain frequency	Frequent assimilation or understanding difficulties	He/she hardly understands instructions or does not assimilate anything
Assimilation and fulfilment of written instructions	He/she does not need additional explanations	He/she needs some additional explanations	He/she needs additional clarifications with certain frequency	He/she does not progress without additional clarifications	He/she hardly understands instructions or does not understand anything
Assimilation and fulfilment of symbolic instructions	He/she does not needs help	He/she needs some help of interpretation	He/she often needs help of interpretation	He/she interprets with difficulty, even with some help	He/she interprets with much difficulty or is unable of interpreting symbols

Technical skills

The term **skill** refers to the **ability to fulfil the ordinary tasks of any job**, training intervening to cover a process that leads to a quality product.

Skill **indicators** are also varied (Table 9.4) and the observation fields established show the steps any student has to follow once he/she has received working instructions: first he/she has to **organise and plan** the work, i.e., to set a tasks scheme and the necessary resources to achieve them; second they have **to follow** a suitable **method** that will lead to a **quality outcome or work** within a reasonable **rate of work** that makes it possible (in economic terms).

Table 9.4

POSSIBLE FACTORS TO ASSESS SKILLS

INDICATOR	ASSESSMENT				
	10	8	6	4	2 or 0
Work organisation and planning	Detailed	Detailed with some lacks	Acceptable	Scarce	Very scarce or null
Method, order and hygiene	Very effective	Effective	Acceptable	Hardly acceptable	Inadequate or very inadequate
Work rate	High and sustained	High though irregular	Medium and sustained	Medium though somewhat irregular	Low or very low
Quality of the work done	Perfect	Standard quality	With defects possible to overcome	With defects impossible to overcome	Poor or very poor

Attitudes or social abilities

There is a third group of indicators that show the students' **attitude** towards work and, in general, their **integration in the enterprise**. It includes very heterogeneous variables that could arise many remarks. Four have been chosen: the **initiative** degree shown by the students when they have been given inadequate instructions - or even intentionally incomplete -, to carry out the tasks or when the students think of technical or process improvements. The students' ability for **team work**, either led by their tutor either arising from the need to cover any of their lacks with their colleagues' assistance. **Punctuality and attendance** are factors that show interest and a positive attitude; nonetheless, negative events should be assessed carefully. Finally, the degree of **responsibility** noticed, which includes the resolute character to face unexpected situations. Table 9.5 summarises the attitudes or social abilities basic indicators.

Table 9.5

POSSIBLE FACTORS TO ASSESS ATTITUDES

INDICATOR	ASSESSMENT				
	10	8	6	4	2 or 0
Initiative	He/she shows initiative many times and usefully	He/she shows initiative frequently and with good results	He/she only occasionally shows or has initiative	Rarely he/she shows initiative	Scarcely or never he/she shows initiative
Collaboration and team-work	Great disposition and success	High disposition and success in most of the cases	Enough disposition and relative success	Scarce disposition	Disposition very scarce or null
Attendance and punctuality	No events	1 or 2 light events per month	3 or 4 mild events per month	1 or 2 serious events per month	3 or more than three serious events per month
Responsibility and interest in the work	Very high	High	Acceptable	Low	Very low or null

“Attitude” as a term covers some of the so-called “**key competencies**” which somehow belong to the personal background of all the non-technical assets. Many of them have been acquired along the training process and are becoming increasingly important.

The students’ professionalism after completing their placement

There are twelve assessment areas or fields and the combination of them would show the **professionalism degree** reached by the students after completing their placements. However, in numerous occasions we will need to state clearly additional remarks (qualitative ones as a rule) about a certain number of the students’ personal characteristics. The evaluation system has to be carefully planned but it should also be open and flexible to channel any kind of useful, even though not measurable, information.

It means that the tutor in the enterprise has to assess several types of behaviours or performances, although not all of them have the same weight for the final assessment. We will deal with them later on in the elements of assessment and professional profile.

9.5. When to assess

Assessment has to be **continuing**, especially the individual one. Only a constant record of the process' most meaningful variables allows to verify the students' changes, while fostering their improvement on the areas with worse performance or keeping those with better performance.

During the in-company training placement module, **assessment and monitoring have to become a habit** for the teacher-tutor, the company-tutor and the students themselves.

Throughout the process, the students have to know the stage they are in, their possibilities and difficulties and, above all, they have to be able to evaluate their own learning process.

Global assessment has a more precise character, and almost all its elements will have much interest after completing the individual assessment. A minimum of discipline is required from the responsables (educational establishments, public bodies and participating enterprises) in order to input the outcome as soon as possible and to use it to improve the process.

9.6. Monitoring and assessment tools

There are three basic tools used by the different agents for monitoring and assessment:

- ↻ The activities handbook, **sometimes made up of weekly sheets**
- ↻ The monitoring cards
- ↻ The reports

All three are very helpful for the individual assessment while only reports are currently used for the global assessment, in this case combining statistic Tables with interpreting comments.

Specific individual assessment tools, which are more useful from the enterprise's point of view, are going to be further commented.

The activity handbook

It is a kind of “diary” filled in by the students during their training placement. It can be structured as a single paper or can be the result of daily reports (amounting up to a week).

The “weekly sheet” is a kind of “work report” for the whole week where the students state all the activities performed during that period, their difficulties and the support received. It is useful both to help the students reflecting their progress during the in-company training and to inform their teacher-tutor in the meetings held at the school every fortnight. Table 9.6 shows an example from Spain.

In order to validate the outcomes of each of the training programme activities, the company-tutor can use the handbook, or the weekly sheet. He/she can also make notes in the margin of the assessing activities of the programme, thus turning it into a wide technical assessment card, coherent to the aforementioned format shown in Table 9.2.

The suggestions provided by the teacher-tutor are very helpful to the company-tutor when he/she has to choose among the different formulae.

EXAMPLE OF WEEK SHEET

Table 9.6

Pupil:				
Company:				
Week 12				
Area or department: Purchase/Supply/Storage				
WORKING DAY	DESCRIPTION OF THE PERFORMED ACTIVITY	GUIDELINES RECEIVED	PERFORMANCE DIFFICULTIES	REMARKS
1	<ul style="list-style-type: none"> - To recognise the area conditions (dimension, equipment, features, etc.). - To answer to the departmental supply orders and to sort goods. 	<ul style="list-style-type: none"> - Explanations about the purchase/supply/storage area technical conditions. - Explanations about the procedures to supply other company departments with goods and 	<ul style="list-style-type: none"> - Difficulty to locate goods in the warehouse. 	<ul style="list-style-type: none"> - I would need to know better the store plant and fittings.
2	<ul style="list-style-type: none"> - To attend a meeting with a supplier and the head of the department. - To help making orders. - To receive perishable raw materials. - To sort (store/keep) goods in warehouses and cold storage rooms. 	<ul style="list-style-type: none"> - Information about non-perishable goods suppliers. - Explanation of the administrative procedure to place orders. - Suggestions about the process to control the reception of goods. - Suggestions about the goods features: quantity, quality, sell-by date, packaging and temperature. 	<ul style="list-style-type: none"> - Difficulty to recognise the features of some goods. 	<ul style="list-style-type: none"> - Dealing with the supplier was very interesting.
3	<ul style="list-style-type: none"> - To attend the purchase of goods on visiting the market. - To receive non-perishable raw materials and cleaning products. - To sort (store/keep) goods in warehouses and cold storage rooms. - To record in a computer the data from the reception process, storage and sorting of goods. 	<ul style="list-style-type: none"> - Suggestions about the goods quality features. - Explanation of the computing program used by the department. 	<ul style="list-style-type: none"> - Doubts about the optimum condition of some goods. - Difficulty to record data in a computer because the program is unknown. 	<ul style="list-style-type: none"> - The goods used by the establishment are of good quality.
4	<ul style="list-style-type: none"> - To help in placing orders. - To receive perishable raw materials. - To sort (store/keep) goods in warehouses and cold storage rooms. - To record in a computer the data from the reception process and sorting. - To make a report about possible health hazards in the purchase/supply/storage process. 	<ul style="list-style-type: none"> - Information about the perishable products suppliers. - Information about the critical sanitary moments in the purchase/supply/storage process. 	<ul style="list-style-type: none"> - Doubts about the layout of the report made. 	

5	- To make a theoretical and physical inventory of the stored goods	- Procedures to make an inventory.	- Difficulty using the company code system.	
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PUPIL'S SIGNATURE

OK THE COMPANY-TUTOR

TEACHER-TUTOR

The monitoring and assessment card

A card where every week **the most relevant indicators** of performance success -or failure- has been designed in order to reduce the time required by the **synthetic assessment tasks**. The model in the next page meets the minimum requirements for a trustworthy assessment and can be used within any situation, vocational cluster or cycle.

The card (Table 9.7) shows the indicators of **individual synthetic assessment stated** in epigraph 9.3 (Tables 9.3, 9.4 and 9.5).

Obviously, not all the three blocks stated nor the content areas in each block have the same relevance when assessing the students' professionalism. Thus different evaluation criteria should be applied for each area; nonetheless there are at least **two reasons why the same evaluation scale has to be used:**

- ↗ **Simplicity** (different weighing leads to greater difficulty to assess and greater risks of error)

- ↗ The **increasing importance of non strictly technical qualities** to carry out professional responsibilities

Table 9.7

CARD OF TRACKING AND EVALUATION

NAME AND SURNAME													NUMBER			
COMPANY										CYCLE						
AREA/WEEK	1 ^a	2 ^a	3 ^a	4 ^a	5 ^a	6 ^a	7 ^a	8 ^a	9 ^a	10 ^a	11 ^a	12 ^a	AVERAGE	FINAL		
Theoric knowledge	6	8	6	6	6	6	6	8	6	8	6	8	6,7	7,0		
Assimilation and tracking of verbal instructions	6	6	6	6	6	8	6	6	6	6	6	8	6,3	6,0		
Assimilation and tracking of written instructions	6	8	8	6	8	10	8	8	8	8	10	8	8,0	8,0		
Assimilation and tracking of symbolical instructions	6	6	8	10	8	8	8	10	10	8	8	8	8,2	9,0		
SUBTOTAL CAPACITY	6,0	7,0	7,0	7,0	7,0	8,0	7,0	8,0	7,5	7,5	7,5	8,0	7,3	7,5		
Organization and planning of the work	2	4	6	6	6	4	4	6	6	6	6	6	5,2	5,5		
Methodology	4	4	6	6	6	6	4	8	8	8	6	8	6,2	6,5		
Rhythm of work	6	6	8	6	6	6	8	4	6	6	6	8	6,3	6,0		
Work done	6	8	8	8	6	6	8	6	6	6	6	6	6,7	7,0		
SUBTOTAL HABILITY	4,5	5,5	7,0	6,5	6,0	5,5	6,0	6,0	6,5	6,5	6,0	7,0	6,1	6,3		
Initiative	2	4	2	2	4	4	4	4	2	4	4	4	3,3	3,5		
Work in group	4	6	6	6	6	4	4	8	6	6	6	6	5,7	6,0		
Punctuality and attendance	10	10	10	10	10	10	10	10	8	10	10	8	9,7	9,7		
Responsability	6	4	6	6	8	6	8	6	6	4	6	8	6,2	6,0		
SUBTOTAL ATTITUDE	5,5	6,0	6,0	6,0	7,0	6,0	6,5	7,0	5,5	6,0	6,5	6,5	6,2	6,3		
TOTAL	5,3	6,2	6,7	6,5	6,7	6,5	6,5	7,0	6,5	6,7	6,7	7,2	6,5	6,7		
REMARKS																

Figure 9.1

WEEKLY PROGRESS (PARTIAL)

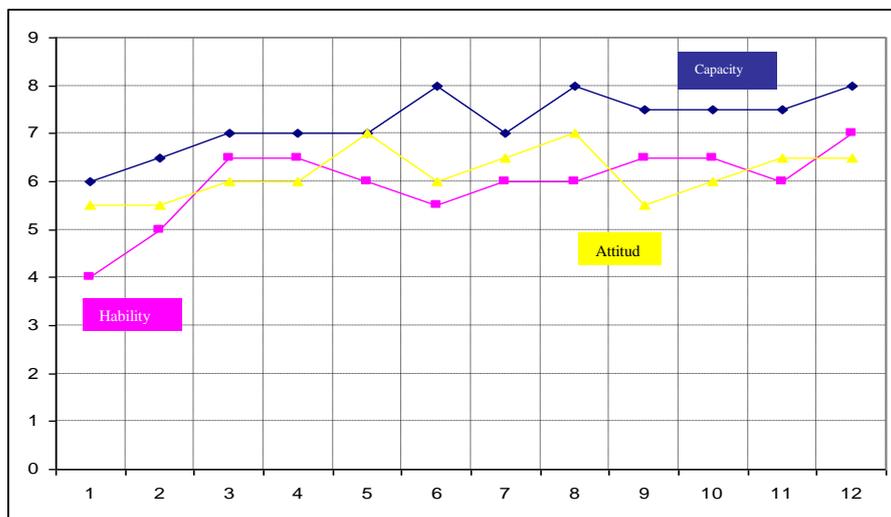
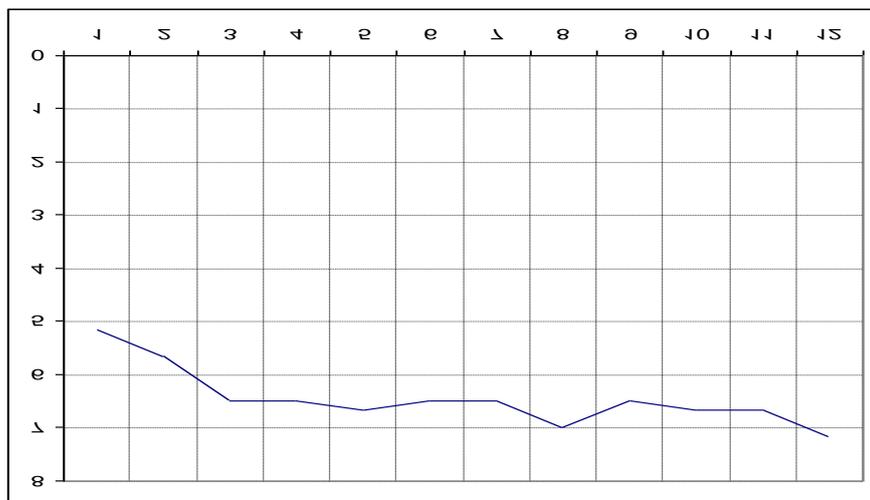


Figure 9.2

WEEKLY PROGRESS (TOTAL)



An homogeneous assessment scale from 0 to 10 is proposed with the special feature that **only even numbers should be used** to prevent the risk of grouping the majority of results in the central part of the scale (i.e. assessing as 5 all the unclear situations).

The proposed card let us calculate automatically the attained marks in the different dimensions of professionalism and the average of both the areas and the dimensions. The tutor can use the average mark of every area as a reference to give a more balanced final mark on the assumption that this one may differ from the latest partial assessment.

Figures 9.1 and 9.2, which go with the card, allow a quick estimate of the students' evolution throughout the training placement. The evolution in each of the previously established areas of professionalism (competence, skills and attitude towards work) can also either be added or summarised as remarks to the card data as shown in table 9.7.

The reports

The so-called reports are **comments explaining** the synthetic remarks stated in the students' sheets or in the monitoring cards. They can even be added as appendixes to the previous documents.

Their name should not frighten the company-tutors. On the contrary, it **offers them the opportunity to give reasons to their assessment proposals** and to limit the importance of a list of statements or negations (in the weekly sheets of the placement handbook) or numbers (in the monitoring and assessment card).

9.7. The professional profile stemming from the assessment

The individual card numerical indicators provide not only general information about the students' degree of professionalism but also about some of his/her relevant characteristics. The marks obtained in the different dimensions define what can be called the **students' professional profile**, when they obtain their diploma, as well as its **global characteristics**.

Professional profiles characterisation

Similar results in the three dimensions analysed would show a **balanced or homogeneous profile**. Traditionally, an individual profile is considered to be balanced when the marks of competence, skills and attitude fluctuate between more or less 0.5 points of the total mark. The characterisation of the global profile would depend on the indicators average mark. This characterisation would thus be **positive, normal or negative** if the average global assessment is between 7 and 10, between 5 and 6.9 or below 5, respectively.

On the contrary, quite different marks in each of the three professionalism dimensions (different to the average value of ± 0.5) would show a **slanted profile**, with specific deviations which should be taken into account. The introduction of such deviations could lead to a typology of these profiles according to the greater relevance of one or two dimensions. High marks in the competence area would show a biased profile of **“theoretical-cognitive”** character while, in other cases, a **“practical” profile** would happen (when there are high marks in the skills area), or an **“attitudinal”** profile (when attitude marks are in the first place). Similarly happens with the homogeneous profiles, the global characterisation of the different marks in the various indicators can also be positive, normal or negative.

A suggested typology for the profiles

Table 9.8 summarises the **typology of the professional profiles** which could arise from the assessment cards –a dozen in total. Nine others (of biased mixed character) could be added (cognitive-practical, cognitive-attitudinal, practical-attitudinal with their respective global characteristics).

Table 9.8

TYPOLOGY OF THE PROFESSIONAL PROFILES		
Type	Slant	Global characterisation
Balanced or homogeneous	--	Positive
	--	Normal
	--	Negative
Slanted	Cognitive	Positive
		Normal
		Negative
	Practical	Positive
		Normal
		Negative
	Attitudinal	Positive
		Normal
		Negative

The students’ professional profile and guidance

Knowing the initial professional profile characteristics has several advantages, both for the student and the tutor, and for any company that wants to appoint a student who has completed his/her placement:

- ◇ The profile shows rather clearly the students’ **strong points** (whose potential can be improved for their own benefit) as well as the **weak points** (which have to be worked on to improve their professionalism degree)
- ◇ It is an indicator of **the best productive insertion for the company** since all the dimensions show different productive affinities

- ◇ The global analysis of the profile allows making **changes in the training system** when the levels of some areas or dimensions show either unacceptable marks or not easily accepted by the productive systems

A **minimum homogeneity** among the three main dimensions is very important for the **small enterprises** - and even for **entrepreneurs** - since the worker must face numerous questions dealing with technical aspects of management, quality, commercial relations, etc. On the contrary, **big companies can more easily accept slanted profiles** since they are a complement to the reverse ones.

All this makes us outline the importance of an accurate placement assessment, in spite of the fact that to establish objective assessment criteria may be difficult and even though they may be used similarly by all the tutors. A good assessment can be very useful for **vocational guidance** and, hence, of great help to achieve the ultimate goal of vocational training in general and of the in-company training placement in particular: **work insertion**.

10. SUBJECTS TO BE DISCUSSED CONCERNING THE RELATION BETWEEN TUTORS AND OTHER ACTORS

10.1. Why is the discussion necessary?

The clash of points of view of the actors involved in the training tasks, in each and every responsibility position, is one of the conditions that ensures the success of these kind of experiences.

An agenda or a dialogue plan is not necessarily implied in such a clash; but it could turn useful to have on the Table some **key subjects** that may focus the dialogue. That is why we suggest some of them regardless of the open relation among actors (from education or business, with managerial or organisational responsibilities) demanded by this kind of discussion.

10.2. Quality and proper functioning guarantees

- Features that a **training programme** should have
- **Negotiation margin to adapt the training programme** to each enterprise's reality
- **Regular contact between the company-tutor and the teacher-tutor**
- **Law guarantees**

10.3. Information requirements to assess and change

- ◇ Advantages and disadvantages of the **assessment tools**
- ◇ **Immediate changes** that may arise after the first results

10.4. The intermediate actors role

- ↳ How to get support from the **collaborating organisations**
- ↳ Need to **communicate them any event**

10.5. The acknowledgement of the training function

- ↻ Possible **acknowledgement means**
- ↻ **Proposals** that may favour the in-company training collaborating company or entity

10.6. Possibility of creating a work exchange

- └ **Commitments** of the education authorities and the companies
- └ **Finding a work and service to companies**
- └ The problem of the professional **information confidentiality**
- └ **Exchange organisation**

10.7. Assessment of the system and creation of mechanisms of improvement

- ✧ **The relations between education authorities and business associations**
- ✧ **Assessment areas**
- ✧ **Proposals of new assessment objectives**

10.8. Future tasks in apprenticeship training

For the future of apprenticeship training the major challenge -apart from the expansion, support and promotion of further training and mobility-is the opening-up of training and employment possibilities in new apprenticeship trades and, above all, in new training enterprises and thus in additional economic sectors.

10.9. Further discussion ¹²

General

Manufacturing industries contribute to growth and development in Sweden in a number of ways. They expand output and provide additional income through demand for local natural resources which, as the old phrase "vent for surplus" suggests, might otherwise go practically unused. More generally, they permit the economy to specialise, thanks to its relatively abundant resources, while importing goods and services that would be very expensive or impossible to produce locally.

Reaching these goals involves a transformation of supply capabilities in manufacturing industries.

This involves:

- ™ Creating modern manufacturing industries;
- ™ Expanding their production and capacity;

¹² We have considered interesting to add up other subjects of discussion conceived under a Swedish point of view, but very European in approach. The following pages would permit to know new elements of exchange, as well as a more precise approach to training topics.

- ™ Improving their technology, organisation and efficiency;
- ™ Widening their range and flexibility;
- ™ Augmenting their capability for borrowing and adapting technology from abroad;
- ™ Making locally owned industrial enterprises strong and competitive;
- ™ Expand the training programmes for all manpower;
- ™ Strengthening the middle management within the manufacturing industries.

How to develop communication and co-operation between the school and working life

Link between industry, the vocational training institutions and the general schools would be established and strengthened. Joint industrial training programmes involving pre-service, in-company and off-the-job training should be developed, in collaboration with the Ministries of Education and Industry.

An Instructional Designer should conduct research and develop and advise on teaching methods and aids.

Tasks include:

- researching into current developments in curricula, teaching methods and other educational practices, and advising on necessary changes and possible improvements;
- advising on contents of modules and courses and methods of examination;
- researching into distance education and teaching aids and advising on, planning and organising their introduction in various educational establishments;
- preparing papers and reports;
- supervising counterparts.

The responsibilities of the Instructional Designer will also include the following assistance to the Ministry of Industry:

- identification of training needs;
- planning and introduction of training strategies;
- Development of in-service and upgrading training, i.e. facilities, programmes, materials

and training staff;

- development training programmes for training officers and instructors;
- elaborating individual career development plans for promotion courses;
- conducting workshops and seminars for all personnel within the fields of curriculum development and teachers training;
- evaluation of outcome and costs.

Co-operative actions, such as the following should take place:

- technical working-group meetings and seminars; case-studies, comparative studies;
- study-group meetings for analysis of current situation, and for evaluation of a completed series of activities;
- workshops, training courses and seminars for the development of curricular or instructional resource materials, and for preparing handbooks or designs for various activities;
- publication and dissemination of an international bulletin on technical and vocational education, planners, policy-makers, educators and students throughout the world.

How to develop different kinds of co-operation

The Ministry of Industry would plan, direct and co-ordinate the human resources development activities within the industry and business sectors in conjunction with the Swedish Distance Learning Network (SDLN).

International co-operation among high-level specialists in technical and vocational educational pre-university level, that is secondary technical/ vocational education and post-secondary technician education.

The various elements making up its programme are aimed at:

- fostering the international exchange of ideas, experience and studies on policy issues;
- strengthening national research and development capabilities;
- facilitating access to data bases and documentation;

- promoting innovations in staff development;
- supporting international co-operative actions.

It is essential to intensify the development of human resources so that they will be in line with the requirements of the industry and the society.

- ◆ To expend the existing institutional training infrastructure and create new institutions to cater for growing needs.
- ◆ To promote, develop and co-ordinate the management of the training in order to armonise and rationalise all training in Sweden and to make the private sector more sensitive to the nation's goals.
- ◆ To ensure greater co-ordination of technical education at secondary and tertiary levels.
- ◆ To increasingly control, co-ordinate and monitor private commercial colleges in order to achieve standardisation and to make them more relevant to the society.
- ◆ To establish a unit for vocational and technical training research
- ◆ The manpower development programmes should be extended to cover areas outside the urban ones, where most of the informal economic activities are undertaken.
- ◆ To finance the cost of any scheme for manpower development or other vocational education training through a levy imposed on certain employers.

Future demands of closer co-operation between the school and working life

The educational authorities would assist the industry to:

- a) strengthen labour market and manpower development at national, regional and local levels;

- b) improve the national distance learning system, including a joint industrial training scheme with industry, occupational standards and certification;
- c) develop in selected provinces distance learning support for in-company training providing, for instance, mobile training units for training in business and administration for self-employment

The project covers five main fields:

- ™ Surveying and assessing natural resources as well as industrial, commercial and export potentials, and other development assets.
- ™ Stimulating capital investments to help realise these possibilities.
- ™ Training in a wide range of vocational and professional skills.
- ™ Transferring appropriate technologies, and stimulating the growth of local technological capabilities.
- ™ Economic and social planning, with particular emphasis on meeting the needs of the poorest segments of the population.

Modern trends in adult education

The word "education" refers not only to a concept, but also to the institutional and administrative structures and programmes designed to translate the concept into a reality. That reality is not static, but is a process always subject to -and indeed productive of- many varying social pressures. The reality is therefore constantly changing.

UNESCO is the international umbrella-organisation for adult education. Mr. René Maheu, the former Director-General of UNESCO, declared: "We live in a world that is changing before our very eyes -a world in which the population explosion, decolonisation and profound economic and social transformations resulting from technological development are

so many forces making for the democratisation of education.

At the same time the acceleration of scientific progress is resulting in the more and more rapid obsolescence of knowledge, and the development of mass communication techniques and audio-visual methods is revolutionising the traditional basis of communication. With all this it is out of the question for education to be confined, as in the past, to training the leaders of tomorrow's society in accordance with some predetermined scheme of structures, needs and ideas, or to preparing the young, once and for all a given type of existence.

Education is no longer the privilege of an elite or the concomitant of a particular age: to an increasing extent, it is reaching out to embrace the whole society and the entire life-span of the individual. This means that it must be continuous and omnipresent. It must no longer be thought of as a preparation for life, but as a dimension of life, distinguished by continual acquisition of knowledge and ceaseless re-examination of ideas." Mr Maheu was demanding a concentration of the world-wide efforts upon adult education. For the half century after the Second World War, formal education had been a booming growth industry all over the world, with even the poorest countries struggling to expand their school and college systems, usually in the pattern of the industrialised countries. The idea of using adult and non-formal education as a means of compensating for the shortcomings of formal schooling attracted attention in both developed and developing countries.

The learning process of adults

In the field of adult education much has happened during the past fifteen years or so to cause the education to move from an art toward a technology. Where guesswork was the order of the day, there are now systematic bases upon which to make decisions about what a course should contain in the way of content, depth of treatment, selection of procedures, student evaluation, and course improvement.

An important part of adult education is to provide examples from a variety of fields, and to include references that will help the learner expand his/her competence. Equally important is to present the learning materials in a plain language. When we consider the qualities that make a successful educator the issue is fraught with difficulty. Qualities such as sincerity,

efficiency, courage, resolution, energy, tact, and personality all spring to mind. The list is seemingly endless, and even after having compiled it no one really is sure of how it can be used.

A more useful approach is to consider what an educator actually does; in other words, to adapt a "functions" rather than a "qualities" approach, and then to make sure that these functions are carried out in the most efficient, effective, and economical manner possible.

Basically, there are just two kinds of activity in which a educator can engage. He/she either manages learning resources, or else he/she operates as a resource. Bertrand Russel put this neatly when he said: "Work is of two kinds: first, altering the position of matter at or near the earth's surface relative to other such matter; second, telling other people to do so." The first kind is unpleasant and ill paid; the second is pleasant and highly paid.

Adult education is considered not as a performance by the educator acting as a transmitting station, but as an activity of the group or class at the receiving end of the process. The educator should stimulate full contribution from the class, and obtain its co-operation in setting up an interchange of ideas and experience.

Teaching is not simply transmitting, it is essentially a matter of communication. Nevertheless, no matter how skilled the educator may be, learning is essentially the task of the learner, and can be accomplished only through the effort of the learner, who must be in a responsive frame of mind.

One of the most important goals for adult education is to develop the self-confidence of the students by creating a feeling of co-operative "group partnership" and to use every opportunity for practical work, especially work with social value.

The adult student must have the ability to learn, which is associated with intelligence, and also the desire to learn. If a man does not want to learn, you can use every known pedagogical artifice on him and he will learn nothing. The educator's responsibility is to see that all the motivating tactics available are used.

One of the hard lessons an educator has to learn is that his main job is to create and work in a learning situation rather than in a teaching situation. A good lesson should be student centred, not teacher centred. Interest is essential for attention, and attention is essential for learning and memory. “Interest” here does not mean simply a localised interest in a particular part of the syllabus, or a day’s work. Such a fragmentary sense may soon wane. The interest that motivates on a long course is something deeper and is based on fundamental emotions and desires.

Teacher education

No successful manpower development can take place without an adequate supply of well trained teachers. In most of the countries, there is an acute shortage of educated teachers, particularly those who have had good branch experience from business and/or industry. It is clear that the issue of teacher training will not be solved in a near future unless further resources are made available.

A major problem in ensuring an adequate supply of teachers and vocational instructors lies in the unattractiveness of the profession and a not surprising preference for the better paid jobs in private industry or commerce. Efforts need to be made to overcome this problem by building a policy for the development of teachers and instructors.

The training programme should be designed to equip the teacher trainees with qualified knowledge of teaching methods and teaching skills he/she has acquired and an understanding of the problems he/she will encounter in the practical teaching situation.

It should also be industrially orientated to provide an appreciation of the vocational environment for which the students are to be prepared. It will emphasise the integration of theory and practice as complementary aspects of any learning process and of an organised application of what has been learned.

The teacher training programme should be based on the most modern internationally accepted methods of teacher training and will emphasise the importance of teaching aids and progressive techniques. Close-circuit television should be used for demonstration and

analyses in both micro and macro teaching situations.

It is necessary to allot a proportion of time to the teaching practice in order to provide opportunities for the trainee:

- To observe the application, performed by expert instructors, of the principles and techniques he has to learn;
- To apply these principles under expert supervision and guidance so that problems and weaknesses may be discussed and corrected; and
- To develop personal confidence and a personal teaching style, which is suitable to his own personality, all consistent with accepted standards of educational programmes

It must be emphasised that this is a learning and orientation period which can only be accomplished under expert supervision and guidance. To leave a trainee to his/her own devices with the added responsibilities of a teaching load during this critical period can only inhibit and prejudice his development as a teacher.

The objectives of a teacher training programme extend considerably further than providing the trainee with technical skills and the techniques for teaching them. It is equally important that he/she should be assisted to develop his/her own personality, and to structure his/her ideas and attitudes into a philosophy of education consistent with community aims and ideas. He/she should be guided in identifying his/her personal role as a leader and facilitator in the group learning experience of the student community for which he is responsible, rather than as an authoritarian figure concerned only with providing material for student consumption.

Further training for educators

The success of a nation's industrialisation programme, on which the economic growth of the country depends, involves the training in increasing numbers of skilled technical workers. This can only be achieved if sufficient technical and vocational teachers, equipped with the

necessary skills and trained in the most modern methods of teaching, can be made available in the various establishments where such teaching is required.

Further training courses should be designed to equip the educator with the practical and teaching skills he/she will require and the understanding of the problems he/she will encounter in the practical teaching situation. Those will be industrially oriented to provide an appreciation of the occupational environment for which his/her students are to be prepared. It will emphasise the integration of theory and practice as complementary aspects of any learning process and of an organised application of what has been learned.

It must be emphasised that even further training is a period of learning and orientation which can only be accomplished under expert supervision and guidance. To leave a young educator to his/her own devices with the added responsibilities of a teaching load during this critical period can only inhibit and prejudice his/her development as an educator.

The linkage between schools and industries

For many years the struggle between capital and labour work has been observed and questioned. In the future peoples knowledge will be the most important outcome for all EU countries. Every economy is moving toward ever more knowledge-intensive work.

Managers in the industry and the school sectors insist that a wider gap than ever before exists today between the skills needed to work in factories and in administration offices and the skill profiles of job seekers. Better co-ordination between institutional pre-service training programmes and the industry and the business sectors is seen by all, as the only way to remedy this.

This implies that the following steps should be taken:

™ detailed assessments of the critical skill requirements of the industry to ensure the necessary demand orientation;

™ the need to gear the training capacities towards this demand;

- ™ cost-efficiency and quality control of the human resources development activities;
- ™ synchronisation and specialisation of training activities at all levels and by public and private institutions and production units;
- ™ it requires new ideas and models about research and development work in the fields of economical, vocational, technical and promotion training programmes.

Simultaneously with the questions of vocational training and technical education, the matter of educators must be underlined. The reasons for this view are the indicated lack of practical know-how, and the lack of knowledge of how to conduct practical systematic training. It is inevitable that the countries now must concentrate on improving the standard of skilled technical teachers in order to achieve better trained craftsmen and technicians.

Educational and industrial psychology

Objectives

The aim of this course is to provide an introduction to the study of human behaviour with special emphasis on its implications for technical education, vocational training and work. It will aim to provide some understanding of:

1. The conditions under which human beings develop and mature intellectually and socially;
2. Abilities, and the measurement of abilities and achievement, by use of simple statistical methods; the techniques involved in the structure of objective tests;
3. Learning, motivation and factors affecting the acquisition of knowledge and skill;
4. Individual differences; social behaviour in the classroom and the workshop;
5. The organisation of human resources in school and in industry;
6. Special development problems associated with handicapped, retarded, emotionally disturbed and delinquent students.

The course should concentrate on adolescent behaviour since this is the period of development with which technical teachers are most concerned. It will also attempt to stimulate insight into the teacher's own personality and encourage him to examine his relationship with the student group and the effect of this on teaching techniques and

teaching style.

Main parts

Part I

Introduction to psychology

Outline of experimental methods employed (including writing-up of experimental results)

- Motivation and incentives
- The nature of intelligence and its measurement
- Special abilities and their measurement
- Personality and measurement of personality
- Attention; span and range of attention
- Perception
- Imagery and thinking
- Concepts and language
- Maturation and growth
- Individual differences

Part II

- The learning process
- Theories of learning
- Remembering and forgetting
- Factors affecting learning
- Learning techniques
- Assessment and testing
- Applications of psychological theory and practice to teaching and teaching techniques

Part III

- Group behaviour
- Group structure and its effects in the classroom, the workshop and in industry
- Observing and understanding the student group
- Special misfits
- Problems of adolescents
- The personality of the teacher and his interaction with the student group
- The application of psychological principles in the classroom and in the workshop
- The application of psychological principles in industry
- Psychological factors affecting the organisation of human resources

Educational and industrial sociology

Introduction

Sociology as the systematic study of human social relations, the interaction of social groups and the structure and dynamics of social institutions. Origin and history. Relationship with other social sciences, e.g. anthropology, psychology, economics, political science, etc. The specialised fields of sociology in particular educational sociology and industrial sociology.

Objectives

The aim of the further training course is to provide a basic understanding of society and school structure and an appreciation of the function of the school, the workshop and the factory in society, and their relationship with the other social institutions. It will deal with the development of the educational system in terms of structure, needs and goals of society and in terms of the demands of a developing economy.

The course will examine the nature of social forces and cultural changes and the role of education in social changes.

Special attention will be paid to the structure and function of the various groups in the technical education, vocational training and industrial sectors, the factors which influence them, and their interaction with each other.

The course will endeavour to develop some basic skills in observing social groups and their individual members behaving as group members, and will cover techniques for assessing and systemising such observations.

The role of the teacher and his relationship with student groups, the school, his peers and with the community will be developed in the course. Although emphasis will be directed toward the technical school and the industrial establishment in the general examination of the group dynamics, other impinging institutional structures, e.g. parent groups, employers organisations and trade unions, will be considered.

Main parts

Part I

- Evolution of society and the dynamics of group structure
- Culture and cultural change
- Social institutions, their growth, structure and function
- Social forces, social change, economic and political factors
- Cultural, social and economic change in Singapore
- Education and its development in response to the structure, needs and goals of society
- View of education in a developing economy - a "consumer good" or an "investment good"?
- The school as a social organism and its place in society
- The industrial establishment as a social organism, and its place in society
- Classroom and workshop as sub-units and sub-cultures

Part II

- Observation of social groups
- Unstructured groups and the behaviour of individuals
- Social roles and individual responses
- Measurement of social forces and vectors - sociometrics
- Leadership and the role of the leader
- Observation of the development of group structure and comparison with highly structured groups
- The teacher as a group leader and the student group as a learning team
- The role of the teacher as a leader and his responsibility toward his students, his peers and the community

Part III

- Review of the teacher's role as a group leader
- Discussion of other group activities in the school
- Discussion of group activities in the community, e.g. Community Centres, People's Associations
- The parent-teacher organisation and its function in the community
- Identification of student groups with community ideals and goals; the teacher's role in this
- Industrial groups and industrial relations; employer associations, trade unions, professional organisations, conciliation and arbitration
- The role of education in all group situations and its function in developing acceptance of responsibility to the community

Strategies for further training

Education - a lifelong experience

The school plays a significant role since it covers a substantial period of life experience at a stage in the maturation of young people, when they are most susceptible to the social climate in which they live, work and play.

The knowledge and skills gained are one thing; the attitudes and feelings about such knowledge and skills and their use; about living and working with others; about the school and the community, and the role identification with both, all are conditioned by the school as a "society" and by the interaction amongst all members of that society.

The role of the teacher and his image as a leader and as a representative of community leadership are critical. The teacher's perception of his personal role and his responsibilities in the widest sense are therefore most important.

A training strategy, built upon *Individual Career Development Plans*, should be the best way to upgrade the teaching staff within the fields of further skills training, instructional methods and school management.

The following items should be considered:

- industrial manpower planning and identification of training needs
- organisation, administration, budgeting and financial planning
- computerised data processing and storing
- quantitative and qualitative evaluation
- delegation of authority and identification of responsibilities
- staff recruitment, development and in-service training
- trainee recruitment, assessment, documentation and follow-up.

Continued in-service training and upgrading of the staff is a necessary part of the Staff Development Programme. For this purpose, a Career Development Plan should be established as well as Individual Career Development Programmes, based upon careful analysis of both present and future jobs.

Based on these plans, an agreement will be made concerning the course content for each individual teacher and school manager.

In-company training in industry

General

The base for all development is education. In creating a new system for education or strengthening the existing one, the aim must be to explore and develop the potential of each citizen to the full, for enabling him to maximum contribution to society in return.

A multilateral or bilateral project should focus on human resource development, the formulation and implementation of new policies and the upgrading of training management and training systems. It will contribute to expansion of employment by improving the competitiveness and productivity of industry. An in-company training system will improve skills of commercial and industrial manpower.

In the description of a human resource development project, the emphasis should be laid on development of in-company training, supervisory training, strengthening productivity centres.

Education for development requires a system of educational administration, organisation and management which is all geared towards progress and change. The approach to the different plans of work must be systematic and co-ordinated.

The success of educational development depends on the teachers, instructors and supervisors, and on their commitment, competence and ability to utilise existing resources. This means that professional education of middle management at all levels is fundamental; basic training for those who are about to enter the profession and in-service, upgrading and promotion courses for those who are already in the field.

In order to establish an in-company training system for development of human resources to their full effect, it is necessary to attain integration and co-ordination between the national education and vocational training programmes, combined with distance learning for lifelong education.

It is important that all relevant aspects of education and training are considered in order to avoid overlapping and to reach an optimal effect considering input of money, technical assistance and other measures that will be taken.

Policy and guiding principles

1. The concept of in-company training to be made acceptable and attractive to the industry and to the employees.
2. The industry's potentials, shortcomings, limits and targets to be analysed and identified. Training priorities to be set accordingly.
3. Maximum involvement of industry in in-company training planning and in targeted execution, including carrying the costs.
4. Training and productivity targets to be set considering human resources, as well as invested capital, quality of products, material to be processed, service to the operatives and production environment.
5. Tolerance and quality standards to be assessed, identified and clarified.
6. Alternatives in in-company and in-service training to be identified in respect of content, extent and application. Terminology to be confirmed.
7. Means, ways and alternatives for transfer of know-how and skills to be identified and assessed considering human receptiveness and reaction, economic conditions and costs, traditions and cultural pattern.

8. Implementation schedules to be prepared at an early stage after initial exploration of the existing situation to secure that the assignment is fully covered and carried out in set time.
9. Existing facilities for institutions, programmes, schemes, equipment, human resources and expertise to be explored and utilised as far as possible. Doubling of efforts to be avoided.

Means and ways for in-company training

There is a long list of in-company training activities aimed at:

- individuals or groups of employees,
- beginners or more or less experienced personnel,
- execution of a single job or, for wider understanding, of a comprehensive process learning machines operation or machines maintenance,
- learning directly at the production machines (for a whole branch of the industry or for a certain category of personnel): centrally, within the company's premises; institutionally, outside the company.

The following examples of in-company and in-service training should be subject to further elaboration and clearance, also in respect of terminology:

- On-the-job instruction
- On-the-job training
- Apprenticeship training
- Next job training
- Upgrading training
- Promotion training
- Supervisor training
- Management training
- Maintenance technician training
- Instructor training

- Training officer training
- Inspector training

The list, which could be extended, shows the variety of in-company training to be offered, and also the selective character of training, giving the opportunity to impart just the necessary knowledge and skill needed for defined jobs, in a minimum of time, without too much interruption of normal production.

“Integrated in-company training and productivity development” prepared especially for newly graduated engineers and technicians, are essential before they take up responsible positions in industry. The system of “learning during production” should be applied as much as possible for saving costs and facing the trainees to realistic conditions.

Fellowship training

Fellowship accommodation to the administrative staff shall aim at: giving the widest possible view of today’s means and ways for technical training; integration of technical training into the general educational pattern; co-ordination of the training activities with the needs of industry and trade; and providing teacher training with the proper administrative framing and tools for international comparison and co-operation, development and evaluation.

Fellowship accommodation of teachers and instructors shall aim at practical demonstration of managerial, technical and educational skills applied under various conditions, training systems and workshop layouts, including relevant learning/teaching aids. Special attention would also be paid to the efficiency of work, quality of products and performance, and maintenance of buildings and equipment.

In order to settle the aim of the studies of the participants, according to individual demands, CUROMED and its affiliated have, as basic data, well arranged study plans that are very

flexible. Those plans will give an increased amount of knowledge so the trainee has more chances of participating in educational development activities.

Soundly developed training programmes are one of the keys to higher productivity and consistent quality required in today's competitive economy. Surveys and analyses will be performed in such a way to ensure that the training is closely related to the special working conditions and atmosphere. They will also gather information on manpower levels and requirements.

Improvement in teaching methods, including new ways of learning, must be reached through studies of the requirements of the individual trainee. This means that his attitudes, interests, personal needs, the environment he is taught in, the equipment and materials he works with, must be considered.

In collaboration with the personnel within the curriculum department and other concerned departments, the Swedish specialists are willing to develop curricula and instructional material for the different training courses. Today, machine and equipment downtime - whether caused by simple mechanical failure or by the absence of trained operating and maintenance personnel - is more costly than ever. Soundly developed training programmes are one of the keys to higher productivity and consistent quality required in today's competitive economy.

Distance learning

The European Association of Distance Teaching Universities (EADTU) was established in 1987 by Europe's major distance teaching institutions. Its aim is to promote and support the creation of a European network for higher level distance education based on the existing provisions - the European Open University Network (EOUN).

Recommendations

The establishment of assisting centres for improvement of distance learning within the Ministry of Education and the Ministry of Industry

Industrial training is a major approach for developing human resources in any country. For many years, technical education and vocational training programmes have been transferred from one country to another, often without sufficient adaptation and modification to suit local requirements and socio-economic conditions. Consequently, many persons have been trained in skills and standards which do not meet the needs of requirements for particular jobs and employment situations.

Since the 1970's many developing countries have been paying great attention to industrial training. However, this could not bridge the gap resulting from a shortage of skilled labour, because each economic sector had been fulfilling its own requirements of manpower by establishing its own vocational training centres and developing its own appropriate training systems, techniques, and programmes, without giving great regard to the national needs.

The success of an industrialisation programme, on which the economic growth of the country depends, involves the training of increasing numbers of skilled craftsmen and technicians. Therefore, it is necessary that the national vocational training programme is well planned and essentially aimed at standards acceptable to the various establishments.

Also the pre-vocational training programmes, conducted by the Ministry of Manpower should be partly connected to the National Distance Learning Network. A higher level of flexibility for young innovative people to get an education to become self-employed or to open small enterprises would be a means of supporting the formal sector and improve the social situation for people living in remote areas.

UNIDO and ILO have already shown their capability to co-operate with industries through human resource development programmes in different countries. The importance of increased involvement in human resources development within the Ministry of Industry training responsibilities should be a nation-wide upgrading of every EU country's socio-economic life.

The base for development is education. In creating a new system for education or strengthening the existing one, the aim must be to explore and develop the potential of each citizen to the full, for enabling him to maximum contribution to the Society in return.

One of the first recommendations is to call for more concern for *scientific research on training aspects*. Accordingly, a decision can be taken for the establishment of a Swedish Assistance Training Centre, to assume the duties of conducting studies and research about different aspects of education, such as training approaches, programmes, techniques, equipment, installations, teaching aids, tests and standards, budgets, staff and other related subjects that might be difficult to deal with at national training organisations. The first recommendation should be to call for more concern for scientific research on training aspects.

An Assistance Centre, can give the support needed in research and development work, and also strengthen the different sub-sectors within the country's Ministry of Manpower.

The tutorial work should be scrutinised as well as the existing systems of student support, examinations and evaluation.

Inception team

The project should be initiated with an inception team whose task would be to clarify the status of the existing distance learning programme within the Ministries of Manpower and Industry and to create a long-term plan of operation for the authorities enlarged responsibilities.

A comprehensive study will provide the authorities in the country with a technical basis for decision on proposed development programmes. It will describe the elements of an increased distance learning network, and set out the conditions, institutions, and policies conducive to a successful strategy of country-wide further training programme.

Concluding views by Curomed Utbildning AB ¹³

I. Training and industry. Significance and models of training implication.

Ideas and reflections as well as examples of co-operation between training institutes and companies.

II. Modern trends in adult education.

Training and Industry. Significance and models of training implication.

The chapter includes three areas.

1. An analysis concerning the needs of co-operation in companies, in schools, and for the students.
2. Examples of activities important for increasing the co-operation.
3. Experience and models for integrated training in Sweden.

1. Why is it important to increase the co-operation between the school system and the labour market? An analysis and a discussion

The needs for organising methods for integration between the local companies and the school systems are rapidly increasing. The students seem to be unprepared for their entrance into the labour market. They are unfamiliar to the demands and conditions connected to a job or a company. Many students also lack competence when it comes to new technology and skills training.

The companies need to employ people who can be integrated in the production and being productive within a relative short period of time.

If the potential staff member has the right training and profile for a job and the necessary level of skill from school, the possibilities of finding a job will increase. If the individual is more prepared for the job, probably the effect will be that the company will show a greater

¹³ Organisation partner of the Leonardo Projecto "Training for Trainers 2002".

willingness to hire.

In this respect, the training of trainers is essential. The teachers have to know about the realities in different companies and organisations. They have the great responsibility of transferring this knowledge to the students. This is an important question for the matter of new jobs and regional development.

The companies also have to share their part in such a training system. They have to prepare the organisation for trainees from the school and train instructors who can take care of students or teachers visiting the company.

It is very important to build up systems for natural meeting places for the students, the trainers and for representatives from the companies and organisations. In order to produce a model for knowledge transferring and network establishing several actors have to be engaged. The result of such a co-operation will be that students would be more prepared for the working life in a company or for managing their own company.

Within such a system, the different groups have their own particular objectives.

The teacher and the school:

- ™ Increased co-operation between the school and the local companies.
- ™ The teachers will be more integrated in society and its structure and progress.
- ™ The teaching will be more varying and interesting.
- ™ The lecturing and the equipment are co-ordinated with what is used and done in the companies. Therefore, they will be easier to keep up to date.
- ™ The trainers get increased resources for further training.

The company:

- ™ More trained and prepared new employees.
- ™ Increased co-operation with the school and other local companies.
- ™ Increased network with people working in the school system, the teachers and the students.

- ™ Increased insight in the school and its methodology
- ™ New contacts with the next generation employees.
- ™ Possible resource regarding development of the organisation, i.e. marketing, administration, production etc.

For the student:

- ™ Enlarged possibilities of finding a job after the school.
- ™ Easier to get the “right” job.
- ™ More interesting jobs.
- ™ Good view of what it is like in a business, and what the demands of working life are.
- ™ Easier for the student to start a SME of his own.

2. Examples of activities as a method for strengthening the co-operation between the companies and the school organisation

Activities supporting the teachers involvement in the companies

- o The companies arrange a system making it possible for trainers to practice in companies or organisations. The system should be a kind of rotation model which gives the trainees possibilities to see a whole organisation and information about how to manage a company.
- o The teacher gets theoretical education and practical training in items connected to manage a company i.e. business development, organisations, entrepreneurialism, management etc.

Activities in the companies

- o The workplaces train instructors and arrange systems with well motivated personnel who guide and take care of the teachers when they arrive for study visits.

- o The companies prepare distinct specifications concerning the demands for level of knowledge and skills, technical competence and other important areas of requirements for new employed persons. All in order to facilitate for the teachers the planning of education in connection with these requirements.
- o The workplaces arrange separate locations in the company or organisation where in-company training can be conducted.
- o The staff in the organisations who have to deal with this students or teachers have to be updated on modern approach about development and communication with people.

Activities that prepare the students in the school environment to be more familiar with entrepreneurialism

The students together with the teachers deal with entrepreneurialism as a subject during school time. In small groups, they develop a company and learn different essential items related to that. With help from lecturers and support from local industries and organisations, together with awareness of actual problems or products, students attain understanding of the realities of entrepreneurialism.

Another advantage is that this part of the school work can be a type of “planting” school for new entrepreneurs and, as such, the students actually can start and work with SMEs during school time, which will be realistic and instructive. Students that have ambitions to become entrepreneurs can then have the school as a “greenhouse” for their own business ideas.

This system gives a lot of useful experience:

1. For the company, it ensures the level of knowledge, skill and social view that is of importance for a future employment and for the development of the company. It also

gives the company opportunities to know the presumptive staff and, through that, increase the chances to get in the future “the right man for the right job”.

2. The University establishes close relations with the labour market and different companies in the region. It comes into contact with an important network of managers, factories and decision makers. The teachers in the University get opportunities for further training in practical and updated applications of their theoretical knowledge. The university can score a success when a lot of its students find jobs after the university studies.
3. The other winners are, of course, the students. After the training, they have good opportunities to get jobs. They know that their training is very updated and that they are needed in the companies that have been engaged in the programme. Or if they would like to start their own business, they have, through the training, already built an important and fruitful network, which they can use in order to attract customers, etc.

“Information systems for business development”

The training programme was a collaboration among the National Business Organisation, the National Post, the Country Labour Boards, the foundation “Stegen“, the Social Insurance Office. The training was accomplished by Curomed Utbildning.

The project goals were to create new jobs, to find a method to develop small companies through new IT-techniques and to find new ways to reintroduce long-time unemployed persons, or persons in need of labour rehabilitation, in the labour market.

The purpose of the training was to give the participants an understanding of operational IT-techniques systems and how to introduce these in the project company. They should also learn about the working conditions in a small company and about the opportunities to develop the market, the administration and the organisation of the project company.

The method was mainly to start with a basic, theoretical training. Then, there would be a placement in the project company with a follow-up every week during the time in the company. The details can be studied in the detailed plan.

This project was conducted 1995-96 as a one-year pilot project. The results were promising as to the reintroduction in the labour market, 12 out of 17 got a restart, and it pointed out the importance of the intimate contact between the individual and the company for creating the trust that is needed for an employment of a long time unemployed person, especially in a SME.

3. The AMU Group: modular training and in-company training

The increasing demands on the labour forces as well as the fast changing labour market made the Swedish government, already in the 1950's, to set up an organisation for further education of adults who for different reasons could not continue in their profession. Back in the 50's, the main reason for re-educating people was physical disabilities to continue with their old work. Nowadays, the main reason is the fast changing labour market.

The AMU modular training of today is much more focused on getting the pupils to understand a wholeness. This applies even to practical workshop training objectives. That way, the pupils are given the theoretical and practical training combined with production-unit training and in-company training. As an example, we can take a welding course:

- | Theoretical studies including handling computers, production planning, production economy, etc.

- | Training in different kinds of welding, theory and practice, sheet iron work etc., this in a module system. When the pupils have been trained in all the different modules and passed the tests, they work in an organised production unit for a certain period of time. Then, they practice their knowledge "in a real life setting" (a company) for another period of time, often 8-12 weeks. During this time the teachers from AMU work as instructors for the students in the companies.

After this period, the company is able to get support from the Country Labour Board to try the person for a time up to six months.

This has been found to be a good way to reintroduce people in the labour market.

To summarise, there are similarities between the different models: A) They all have a period of in-company training. B) Two of the models involve the teachers in the in-company training in different ways. C) They all point out the importance of contact between the training institution and the companies.

The Curomed model also points out the opportunity to introduce new technique knowledge. In this case, that is to say information technology in SME:s. This may be something good for very small companies, as they often lack the power to keep updated with technology especially if this technology is not right in line with what the company is working with.

BIBLIOGRAPHY

A large number of sources of every kind have been used to produce this guide; as counting them would be tedious, we will only mention the most outstanding ones:

- 📖 Cambres de Comerç, Industria y Navegació de Catalunya y Generalitat de Catalunya, Department d'Ensenyament (1995): **“Manual del Tutor de Empresa”**. Barcelona.
- 📖 European Commission (1996): **“Teaching and Learning. Towards the cognitive society”** (White Paper on Education and Training). Brussels.
- 📖 Industrial Research and Development Advisory Committee of the EC (IRDAC) (1994): **“Quality and Relevance. The challenge to European Education. Ulocking Europe’s Human Potencial”**. Brussels.
- 📖 Centro Nacional de Recursos para la Orientación Profesional (1997): **“Fichas para la Orientación Profesional 2ª edición”**. Ministerio de Educación y Cultura, Secretaría General de Educación y Formación Profesional. Madrid.
- 📖 Consejo Superior de Cámaras de Comercio, Industria y Navegación de España (1994): **“La Formación Profesional en el nuevo contexto europeo”**. Madrid.

We deem as highly valuable some assessment researches made in other countries, such as the so-called “Petra” report by Siemens AG and the German Ministry of Education, as well as the suggestions and contributions of the members of the “Training for trainers 2002” Leonardo project and the people, later mentioned, who have been related to it. The exchange of opinions coming from such different countries as Italy, Iceland, Sweden or Austria have lead us to see how the core objectives of this work (to foster the Spanish companies training commitment) is so common in other socio-economic cultures. Actually this guide is an adaptation of the first technical report of the already mentioned Leonardo project to the institutional situation of what is currently known as MEC area, that goes along others for the Canary Islands and Galicia.

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