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VOCATIONAL EDUCATION AND TRAINING IN GERMANY AND SWEDEN

Stategies of control and movements of resistance and opposition. Report from a symposium

Edited by
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Introduction: Germany and Sweden - Two Different Systems of Vocational Education?

In international comparisons Swedish and German Vocational Education and Training (VET) systems[1] have both been characterised as unique in several respects. Differences between the two countries seem to come to our minds easily, and to some observers the two systems of VET might even appear to be completely diverse. The classical view of diversity is summarised below at the two levels of VET, and the education of teachers and trainers for VET.

However, the traditional research methodology and the results of Comparative Education need to be viewed critically. The answers it has provided in the past may be based on very narrow and too simple questions as well as very particular and very one-sided political interests. Hence focusing on nothing but the products (the "answers", the "results") of Comparative Education research carries certain risks. The products in Comparative Education research and their specific uses will be difficult to understand, if we abstract from the production process of theories and related methodologies. They will be even more difficult to assess if we afford us the luxury of ignoring the fact that they are closely related to historical development processes of capitalist systems and specific problems arising in this context. The question we therefore have to face is that of the meaning of capitalism and its history (decline) for the area of VET. As someone remarked long ago, capital is the great leveller in history - and in the end we may find, through formulating different questions and adopting new approaches which are less decontextualised than would now be widely accepted, that it has in fact largely levelled differences between systems of VET in Germany and Sweden. We may thus end up by concluding that diversity is nothing but a political myth and in terms of research orientations nothing but a self-fulfilling prophecy.

Current debates on reinforcing the European dimension in education, on subsidiarity, on multi-tiered systems of European policy-making, on the emergence of a European market for education (parallel to an internal European market for products, a European labour market, etc.), on processes of harmonisation between Member States, etc., will necessarily have to be seen in a new light, if the usefulness of this alternative view could be made plausible.

1. Processes of Vocational Education and Training in Germany and Sweden

(a) *Location of courses, delivery of programmes in Vocational Education*. From 1971 onwards basic, initial Vocational Education in Sweden has been school-based to a very large extent, and it is still school-based after the latest reform in the 1990s. In fact, at this level practically all training for occupations in industry and commerce as well as in the state sector is provided by the *gymnasieskolan*, i.e. the upper secondary level of an integrated Comprehensive School system. Today approximately 98% of all young people enter some kind of Upper Secondary Education. Apprenticeship is one alternative within this system, but the number of apprentices is very small in Sweden at present. The political - legislative and administrative - responsibility rests entirely with the state. Vocational education programmes are meant to be an integrated component of Upper Secondary Education, at least on paper being on a par with the general education programmes. Core subjects such as Swedish, English, Mathematics and Natural Science studies - are common to all programmes, and both vocational and academic programmes give general access to Higher Education (also see below).

By tradition (initial) VET in Germany[2] has been regarded by employers as being their prerogative.

Hence VET centring around the idea of "apprenticeship" has been and still is predominantly factory and office-based under the full responsibility of employers, apart from specific framework legislation by the state and certain institutionalised trilateral consultation processes between employers' federations, trade unions and government representatives. Almost all attempts at modifying this system in the sense of increasing the role and the influence of the state (and the trade unions) had already failed by the mid-1970s. As a result the traditional barriers and the differences in career opportunities and prestige between General Education and VET have been fully maintained up to this day. Only minorities of students will gain access to Higher Education through VET (excepting those who acquire the *Abitur* first and then add on an apprenticeship).

(b) *School careers, diplomas and time frames*. All streams of the Swedish *gymnasieskolan* independent of their curriculum content give access to Higher Education, as well as leaving it to students to decide in favour of not continuing their education but to look for a job. Thus, the percentage of those holding the required diploma for passing on to the level of Higher Education is very high, higher than in most other European countries, and certainly much higher than in Germany. This is precisely because the diploma acquired at the end of Upper Secondary School has this dual function, based of course on a corresponding curriculum of the *gymnasiekolan*. At the same time school careers of Swedish students appear to be very simple, with the system being rather transparent and the choices available being quite limited. At present there are 16 broad national programmes, some of which are specialised in national or local branches in the second and third years, specially designed programmes, and individual programmes The latter are particularly aimed at students who are uncertain of their educational and occupational choices, but may also consist of a three-year apprenticeship. However the number of apprentices is very small in Sweden. Normally Swedish students spend twelve years in Primary and Secondary education, but the time may be extended for those who first enter an individual programme and later choose a national or special programme. Also, students who fail have got a right to complete their studies, which prolongs their time of study.

The situation in Germany appears to be quite different. When entering VET, prospective apprentices are faced with more than 400 different occupations from which to choose the one which might be appropriate for them. On the other hand there is a heavy concentration of apprentices in just 25 occupations, with the top 25 recruiting more than 80 per cent of all female apprentices and (different) top 25 accounting for roughly 65 per cent of all male apprentices. A substantial minority will have no apprenticeship at all but will be obliged to attend a Vocational School for unskilled youth, parallel to unskilled work or unemployment, for the duration of usually two to three years under current regulations for compulsory schooling. Apart from that, there is the possibility of choosing between an apprenticeship and full-time vocational schools (e.g. *Berufsfachschulen*), as well as the *Fachoberschulen*. In any of the cases, excepting the *Fachoberschulen*, it is a quite complicated process to move from there up to Higher Education, and it always needs a lot of not easily available information in order to take the right decisions. However, important shifts in participation rates and the structure of school careers have taken place at the level of secondary schools as a result of increasing numbers of parents and students deciding in favour of ever longer schooling in the area of General Education (*Realschule*, *Gymnasium*) instead of Vocational Education. Even students entering VET have previously spent more and more time in General Education and thus tend to be older and older on the average. The same applies to Higher Education, with ever larger numbers of students going through an apprenticeship before taking up academic studies and with ever larger numbers of university students having completed studies at a polytechnic (*Fachhochschule*) beforehand. In general it could be said that the duration of school careers has turned out to be an extremely flexible matter, not to speak of developments at the level of Higher Education. As a result of longer periods of schooling and increased participation rates at higher levels labour market problems for new entrants tend to be less severe than they would quite certainly have been otherwise.

(c) *Teaching and learning processes, quality aspects*. The Swedish Upper Secondary School reform in 1991 meant that the vocational programmes were prolonged with a third year and shared a

number of core subjects with the academic programmes. A new grading system, on the one hand including a possibility to fail students, and on the other hand giving schools a marked responsibility to provide such students with enough compensatory teaching in order to pass, was introduced. The Upper Secondary Education reform was motivated by quality arguments. If VET could not provide the labour market with a well educated and flexible work-force, it would soon become superfluous, and the VET students would not be able to compete over the jobs, it was argued. Not least the big labour market organisations held such a view. However the new Upper Secondary School has got several substantial problems, one of which is a high number of students, particularly at certain vocational programmes, who fail in the academic core subjects. Thus, in 1996, one third of the students failed in Mathematics, and every fifth in English and Swedish, at the Industry programme and the Transport technology programme. Figures as these have caused a heated public and political debate over Upper Secondary Education to take place. Doubts have been raised whether students in the vocational programmes have the capacity of successfully completing the academic courses in core subjects, and if all students really need a three-year Upper Secondary Education. The supporters of the reform maintain, that neither the reform, nor the students are to blame for the problems. It is argued, that the intentions to integrate theoretical studies and practical training have not advanced as expected, the co-operation between schools and work-places is too sparse, and methods to improve teaching and learning processes in VET must be developed. Another central quality problem has to do with the vocational training at work places. According to the reform decision in 1991, the Upper Secondary vocational programmes should contain no less than 15% of site-based training (*Arbetsplatsförlagd utbildning*, APU). Most vocational students regard the APU as a very important and valuable part of VET. Today, however, almost 40% of the students do not get APU to the extent required in the curriculum. Lack of time and money, and too few trained instructors are the main reasons why site-based training is not arranged according to regulations. Finally, the lack of a modern vocational teacher education, as is discussed below, is a serious quality problem for Swedish VET.

The ”quality” of VET in Germany could be assumed to be in rapid decline - which might even seem to be difficult, given the bad marks it already got in major research studies of the 1960s and 1970s. In the past it was seen as a major problem of VET that vocational schools and employers were operating independently, with schools having their specific curricula and employers having their specific training programmes, without sufficient co-ordination existing between the two sides. While this technical problem may no longer exist, it has at all times been a matter of manifest pride that teaching and learning processes were fundamentally focused on practice, practical experience, practical work experience, work experience in real production processes, or whatever you might euphemistically call it, and not on some kind of abstract learning in unrealistic contexts far from concrete requirements of work in factories and offices. The actual nature of this work experience and the very procedures of education for work involved are not so often made the object of public debate, and it is quite evident that they do not lend themselves as easily for being made a matter of manifest pride and boastful claims. In fact ”work experience” could carry a lot of different meanings in practice. It could refer to business firms employing apprentices right from the beginning of their first year like any other worker, charging them with one-sided and rather simple, repetitive tasks and providing little, if anything at all, on the side of systematic training under the supervision of a qualified person - or it could refer to a craft shop where master and skilled worker would insist on apprentices participating in all kinds of work, demonstrating everything to them from the very simple to the very complicated tasks and thus providing a very comprehensive and qualified training, perhaps even supported by additional periods of training in a Training Centre of the respective Chamber. It could mean a kind of training, particularly in big business firms, where the employer would basically want to provide a systematic and more theoretical overview of all relevant production units, including instruction in *Lehrwerkstätten* and additional theoretical training, thus allowing apprentices only at the very end of their training to be actively involved in real production processes - or it could mean a kind of training where learning would be based largely on practical experience in different production areas where apprentices would spend fixed periods of time under the supervision of trainers and experienced workers, systematically being moved from one area to the next. Whatever the case may be, and there is in

reality a large number of variants between the extremes, we might be generally sceptical as to the outcomes of training processes and their providing sufficient qualification for the concrete demands of working life.

(d) *Structure of the teaching corps, job conditions and careers, professional competence*. The staff involved in VET in Sweden is heterogeneous; it consists of teachers in general core subjects (appr. 30% of the scheduled time), teachers in vocational subjects (55-60% of the time), and trainers in companies (10-15% of the time), with different education and recruitment patterns, different cultures and status in Upper Secondary Education. Here, the discussion will mainly be focused on teachers in vocational subjects and trainers at places of work. Normally, Swedish vocational teachers should hold a University Diploma in Education for Upper Secondary School in order to be employed. The only exceptions are when teachers with such qualifications are not available, or, in some cases, when vocational training is arranged on contract. In periods, Swedish VET has had problems recruiting qualified teachers, especially to vocational technical education. In the 1980s, several measures were taken (e.g. possibilities to follow vocational teacher education as part time studies, reintroduction of training allowances) in order to increase the availability and attractiveness of teacher education and training. The number of vocational teachers who do not meet the formal requirements has decreased over time, but in 1996 more than 20% of the teachers in some industrial programmes were not formally qualified.

In Sweden there are four broad categories of vocational teachers, each with its own formal education requirements (which today also may vary somewhat between the different universities and university colleges): teachers for industry and handicraft, commerce and administration, natural resource use, and paramedical education, respectively. Particularly the two first kinds of teachers have been seen as quite another category than teachers in the general subjects in Upper Secondary School. In spite of the integrative aims of the reform in 1970, vocational and academic programmes have often been kept apart, physically and cognitively, and vocational and academic teachers have worked separately from each other. Their professional careers and educational backgrounds have been qualitatively different; practical work experience has been valued higher and the demands on formal and theoretical knowledge on the average have been lower for vocational teachers than for the others. For example the required knowledge for admission to the 1-year vocational teacher education for industrial occupations has been five years of work experience and only 2 years of Upper Secondary Education, whereas upper secondary teachers in academic subjects have to follow several years of university studies. The status of vocational teachers traditionally has been lower than that of the teachers in traditional, academic subjects. The differences in status, traditions and culture of the two teacher groups lead to considerable difficulties in achieving a desirable co-operation and subject integration in the vocational programmes of Upper Secondary School today.

Very few, if any, scientific studies have been conducted specifically on job conditions and careers of vocational teachers and trainers in Sweden. The sparse available data often show substantial similarities between vocational teachers and other teacher categories of Upper Secondary Education as to how they perceive their job conditions. For example the contact with young people is highly valued, and the salaries are seen as too low by most teachers. However, vocational teacher work is more noisy, dirty, polluted and stressing than that of the others. Work is perceived as less flexible than by other teachers, and less safe, i.e. chances of being fired are seen as bigger. The career alternatives are limited both for vocational and core subject teachers.

It is not difficult to get a rather gloomy picture of the competence of Swedish vocational teachers. The requirements of formal education are still considerably lower than for other teacher categories (also see below), and approximately 45% of the vocational teachers have only got a basic education at upper secondary level when they enter teacher education and training. Furthermore, their competence is often said to be too narrow and specialised in the new, broad upper secondary programmes. A survey from 1994 showed that slightly more than half of all vocational teachers had got their main experience from working life more than one decade ago, and that only half of the teachers had received any work practice since they entered the teaching profession. Industry and trade union

representatives have recurrently characterised the competence of vocational teachers as being insufficient and out of date. However this picture can be contrasted with recent evaluations from vocational students, who are generally more favourable to their studies and teachers than students at the academic programmes. Thus more than 2/3 of the vocational students think that they have been well prepared for working life. An overwhelming majority (90%) maintain that they have received new knowledge in the vocational subjects to a high extent and almost as many that they have been trained to work independently, by studying in their own pace, conducting studies of their own and work together in small groups.

Concerning training staff, it could be expected on the basis of the structure of the 'dual system' prevailing in Germany that trainers being responsible for the training of apprentices at the level of (mostly private) companies in production and circulation outnumber school teachers by far. Trainers would either be identical with the employers (in small firms) or would be employees working exclusively or partly in the area of training. However, few concrete demands are made on their educational competence, with the exception of those introduced by legislation in 1969. Basically it is enough for them that they are entrusted with certain training tasks and responsibilities by their respective employer, and employers have always regarded all matters pertaining to apprenticeship training in the company, including the selection and the demands on particular qualifications of trainers, as being an exclusive domain. Hence it could be assumed that trainers have a basic orientation on the (often narrow) aims and objectives of a particular company and a particular employer, although existing framework regulations concerning training of apprentices (*Ausbildungsordnungen*) have to be respected. This is to say that trainers find themselves in a typically hierarchical situation regulated by private contract, with apprentices themselves clearly being at the bottom of the hierarchy. Undoubtedly apprentices have reacted in increasingly negative ways to being held in this position ever since the 1960s and this has forced companies to reflect more systematically on new methodologies of training. On the other hand the situation of vocational teachers is slightly different from that of trainers in companies. It is important to note that in most parts of Germany there are clear distinctions being made between teachers in General Education, Special Education and Vocational Education, plus additional divisions existing inside the group of teachers in Vocational Education, even though the vast majority of them are civil servants with the same sort of career structure, payment and similar working conditions. This kind of equality of formal status has been achieved only at a late date for teachers in commercial vocational training (*Handelslehrer*), and even later for teachers in technical vocational training (*Gewerbelehrer*). Occupying a relatively weak position within the 'dual system' as a result of the subordinate role being played by vocational schooling, vocational teachers have seen their role and their competence further questioned by the negative development of the labour market and rapid technological changes in recent decades.

(e) *Reproduction of the division of labour*. It is quite evident that inside the Swedish working class the boundaries and inequalities between manual and intellectual labour have not somehow disappeared with the 1970 school reform or that of the 1990s introducing an Upper Secondary Education for all (or almost). Neither have gender divisions disappeared; on the contrary, the Swedish labour market is still one of the most gender divided in Western countries. Undoubtedly the fundamental need for reproducing a hierarchical system of skills and competences at the level of production and circulation and in the state sector still exists. The differences in job requirements are still vast and probably growing between different branches, between big and small companies, and between various types of production. But this seems to be a lesser problem for employers, at least in the big industries, in relation to the much more basic requirements of attracting and recruiting young people to industrial work under conditions of highly mechanised and automated processes and of being able to dispose of a sufficiently motivated and flexible workforce. It tends to be precisely the needs of big industry, particularly within mechanical engineering, which have been voiced in the debates and partly reflected in the reforms of Swedish VET. What big industry requires from schools is a workforce with a generalist education and a broad basic vocational training, which is said to best serve their needs of competitiveness and flexibility. Today representatives from the biggest engineering industries almost unequivocally advocate general education with core subjects such as Swedish, Mathematics, Foreign

Languages and Physics. But then one must also add that big companies have got far better possibilities than the smaller firms to provide their workforce with the specialised vocational training needed, after Upper Secondary Education. It might thus be assumed that in the eyes of big industry employers the Upper Secondary School by and large can deliver the goods, even if certain improvements and complementary additions are required.

In reproducing the existing hierarchies of skills and competences, employers in Germany have faced the same sort of problems as employers in Sweden but have had a tendency to rely almost completely on their own forces. This has involved a number of inconsistencies being in contradiction with claims to having the 'best system of VET in the world'. The big and medium-sized export industries dominating the German economy have by tradition preferred to a large degree not to train their manual workforce themselves but to leave this business to handicraft trades and small shop owners or to small firms in industry and then to recruit workers only after completion of their VET. It is generally accepted that there are big differences in the "quality" of VET, depending on the type of training undergone (for industrial or commercial occupations), on the size of the firm (small, medium or big), on the branch where training takes place, on the availability of competent trainers, etc. It is also undeniable that a substantial majority of apprentices will change after the end of their training the employer and/or the branch and/or the occupation for which they were trained. This, then, inevitably leads to the conclusion that VET could at best have no more than very general effects on the education of apprentices - and in the worst case no visible pertinent effects at all. As far as information is available - and employers are not easily motivated to provide it - it could be assumed that with regard to demands for a high-quality VET the vast majority of employers are not delivering the goods, nor do part-time vocational schools under the responsibility of the state. Matters have been further complicated since the 1970s by declining growth rates of the economy, with bankruptcies preventing apprentices from finishing their VET, with difficulties of finding employment after completed training, with skilled workers having to accept jobs in specialisations which are unrelated to their training, sometimes on the basis of limited contracts, part-time employment and job-sharing schemes.

(f) *Governance of Vocational Education and Training, role of social actors in the political process*. Since the 1960s, VET in Sweden has been a matter of secondary schooling in state-run institutions. However, throughout the entire post-war period the big bargaining forces of the Swedish industrial relations system, the organised labour movement and the employers' organisations, have played a decisive role in shaping VET policy. The 1970 Upper Secondary Education reform has been interpreted by some researchers as a sign of the unique strength, and in fact the hegemony, of the Swedish Social Democracy and the trade union movement. In this perspective the education reform was deemed to be one of the last products of the old struggle of organised labour for equal opportunities in education and against the old parallel system of General and Vocational Education, with roads to Further Education/Higher Education being barred for the majority of students. Others have stressed the fact that employers and employers' organisations have not been seriously opposed to the introduction of a school-based system of VET inside the Comprehensive School. In particular the few big export industries dominating the Swedish economy rather have been driving forces behind the development of VET for a large part of this century. Indeed a set of ordered relations between a strong, centralised state, ruled for a long time by Social Democratic governments, and very well organised and strong actors at the level of industrial relations - generally termed the `Swedish model' - has been capable of defining a consensus in matters of education policy and translating it into political practice. Even if the `Swedish model' gradually has lost ground from the early 1970s and onwards, it is still working in the field of VET.

In the 1980s and 1990s, the Swedish educational system has undergone a profound change in terms of decentralisation, deregulation and, to some extent, privatisation. The earlier strong central regulation of school organisation, curricula and allocation of resources has been replaced by so called goal governance, within the frames of which local actors (municipalities, schools, local industry and local unions, teachers and so on) are to make decisions. Today the municipalities themselves e.g. decide which programmes to

provide and with what resources, they are free to invite tenders in Upper Secondary Vocational Education, and may co-operate with local companies in a number of different ways. What will come out of these changed patterns of governance and division of responsibilities is still an open question to a large extent, but it is already obvious that the influence of local industry over vocational programmes has increased in many places, as well as differences between municipalities in the content and quality of VET.

Although the widely used term of 'dual system' (*duales System*) for the governance of VET in Germany suggests a kind of co-responsibility of employers (and trade unions) and the state, this is hardly reflecting the really existing power relations. In this century employers' organisations and employers have generally been violently opposed to ideas of sharing responsibility with the trade union movement (with extremely few exceptions) or even to regarding the politics of VET as part of the normal bargaining process within the system of industrial relations. They have, with very few exceptions, successfully fended off in the 1970s and after any attempts at expanding the role of the state in supervising and regulating processes of VET, as far as it takes place inside private enterprises and shops. And they have been extremely reluctant, if not in fact completely unwilling, to accept an increase of the time apprentices and young workers spend in state-run part-time vocational schools (so far mostly half a day per week), the introduction of full-time vocational schools replacing the dual system (e.g. the *Berufsgrundbildungjahr*), and any forms of integrating General and (school-based) Vocational Education inside a Comprehensive School system (the *Kollegschule*) as they have been experimented with up to the 1980s in the Land Nordrhein-Westfalen. Any serious analysis of the political process in the governance of VET would easily be able to substantiate the thesis of a lack of consensus between the many partners involved _ and it might be added that in many important matters there is not even a basic consensus between different factions and categories of employers.

2. Professional Education of Vocational Teachers and Trainers in Germany and Sweden

(a) *Coherence of structural aspects and phases of programmes for educating trainers and teachers*. Keeping in mind that the pedagogical activity of company-based trainers in Germany rests mainly on work experience and skills acquired in the specific occupation for which they function as trainers, it comes as no surprise that the demands being made on their formal education as trainers are generally low, being restricted to the pedagogical side and not including the side of occupational knowledge and skills. A typical trainer would be educated as a skilled worker and would then have progressed after certain courses and examinations to the level of master (*Meister*) or technician (*Techniker*). In order to be able to work as a trainer within the 'dual system', he would be required by the respective ministerial orders regulating minimum demands concerning the qualification of trainers (*Ausbilder-Eignungsverordnungen*) to demonstrate familiarity with certain areas of pedagogical and psychological knowledge deemed to be important by the authorities. This would be done through examinations organised by the respective Chambers of Commerce, Agriculture, etc., and actually not requiring prior attendance of courses and seminars. That does not exclude much higher particular demands being made on trainers by the employer at the level of a particular company. The general situation, however, is characterised by the fact that a certain knowledge of typical work processes within a particular company and some superficial knowledge of basic pedagogical ideas and problems would be regarded as being fully sufficient for exercising the function of trainer in VET.

By contrast, the formal requirements for becoming a teacher in the field of VET are rather extensive and detailed. Students would have to spend a minimum of seven years in teacher education courses before having the formal status of a fully qualified teacher. The peculiar structure of teacher education in Germany, which is valid for Vocational Education as well, requires each student to pass through two compulsory phases organised by two different and separate institutions (*Universität, Ausbildungs- und Studienseminar*) under the political and administrative responsibility of two different ministries at the level of the Länder (*Wissenschaftsministerium, Kultusministerium*), each of them terminating with a major state examination (*Erstes Staatsexamen, Zweites Staatsexamen*). Possibly a third non-compulsory phase of in-service training (*Lehrerfort- und -weiterbildung*) is to be added to this. It is doubtful, however,

whether the idea of phases, presupposing some kind of unity and continuity of purpose, content and learning processes in different institutions and environments, could seriously be upheld. Indeed there is far-reaching agreement that this kind of unity or continuity does not exist, with earlier phases not working towards aims and objectives of later phases, and with later phases not building on achievements and contents of earlier phases. It is a logical consequence that the passage from one phase to the next is clearly experienced as a break by students. Each subsequent phase in fact sees itself as being in opposition to the preceding one and as either having to start from scratch in the development of professional competence, or as having to supply the most basic elements which were neglected by the earlier phase. Thus, there is a high degree of incoherence between phases and in the transition from teacher education to work. Some cynical but nonetheless logically thinking commentators have concluded that the most important competence prospective teachers apparently are asked to develop is that of being able to forget everything they learnt.

In Sweden, where school based education and training traditionally is clearly dominating, and site-based training is more or less marginal, the official educational requirements for vocational teachers are detailed, but non-existing for trainers in companies. Since several decades, industry in collaboration with the university colleges have arranged short, optional trainer courses. Although the quality of the site-based training (*APU, arbetsplatsförlagd utbildning*) was regarded as one crucial aspect of the Upper Secondary School reform, and has later often turned out to be a problem, no reforms regarding the education of trainers have been suggested. The public committee on vocational teacher education, appointed in the 1990s, concluded, that this, as before, primarily was a task for working life, to be carried through in co-operation with the schools.

The Swedish education of vocational teachers is located at universities and university colleges and basically follows the same rules of eligibility, curriculum, diploma, etc., as the rest of the Higher Education system. It is of a duration of one year and oriented towards the theory and practice of teaching. The formal entry requirements vary between the different teacher categories. For example, vocational training and at least five years of professional experience are required to be accepted to the vocational teacher education for industrial occupations. In spite of the fact that the qualification demands on vocational teachers have increased considerably, education for vocational teachers is essentially the same today as in the 1960s and 70s. For instance, the 1991 Upper Secondary School reform meant that vocational and academic subjects and courses were combined into rather few programmes, preparing for broad occupational areas rather than specific jobs, and also for higher studies. It was rather obvious that the reform required a theoretical knowledge that many vocational teachers were lacking. Furthermore, the intended broadening and modernisation of vocational education presupposed that upper secondary teachers of different categories would co-operate closely. Also schools, and above all the vocational teachers, should collaborate with local industry in order to create an optimal site-based training. Against this background a reform of teacher education would seem urgent. In fact, such reform proposals have been put forward in the 1990s but have not led to any decisions yet. In 1993 the Conservative Minister of Education appointed a committee with the task to suggest a future vocational teacher training and further education for teachers and trainers. In the committee report, with the telling title '*Raise the bar!*', it was proposed that education for vocational teachers should build upon at least two years of higher studies. The committee argued, that such a reform was necessary out of several reasons, especially the growing qualification demands from industry and the rest of society and the changes of Upper Secondary Education, with a larger share of theoretical subjects than before. Also it was seen as unreasonable that vocational teachers should have considerably lower theoretical competence than other upper secondary teachers. Finally the committee supported the idea of a teacher certificate. However, these proposals were put aside when the new Social Democratic government came into office, and today, education for vocational teachers is still the same as before. One possible consequence of a continuing passivity in this respect is that municipalities to a growing extent invite tenders for teaching in vocational subjects in upper secondary education, another is that the big corporations increasingly establish independent, tax funded upper secondary schools because of a growing dissatisfaction with the public schools - both possibilities were opened up in the 1990s.

(b) *Focus of teaching and learning processes. Role of professionalisation.* As for Germany, it would be fully naive to assume that the objective of professionalising trainers and prospective teachers actually represents the main orientation of their respective teaching and learning processes. In a formal sense teaching and learning processes of trainers and of teachers are worlds apart, although the outcomes might still be similar. Concerning the trainers (roughly representing 90 per cent of all teaching personnel in VET), there is no sign for the state and the governments at central and regional level being interested in creating an institutionalised framework for their education. Just as the 'dual system' of VET is dominated by the interests and the influence of employers, the education of trainers at company and shop level is largely left to the employers' side, except for a few basic legal norms and regulations which they have to respect. The existing curricula having been issued by the Bundesinstitut für Berufsbildung in the context of the ministerial orders defining minimum levels of pedagogical qualification represent nothing but recommendations which are not binding on individual employers. Apart from that even strict adherence to the curricula would be no guarantee whatsoever for providing trainers with an adequate professional education enabling them to deal with training situations in qualified ways - except if they happen to have these qualifications through natural dispositions and/or long-standing experience. Only under very exceptional circumstances would trainers be given a chance of passing through phases of formal education for their pedagogical functions at the workplace or in training centres.

As for the teachers, decades of research and debate have made it perfectly clear that their education in the first and in the second phase will have to be interpreted as part of a wider process of socialisation, an education for citizenship as a particular form of ideological integration, having no direct link whatsoever with the world of teaching in schools and the qualification requirements deriving from it. The university education of teachers for Vocational Education which has been achieved in Germany decades ago represents a world of anti-practical, anti-theoretical, anti-critical, anti-rational reproduction processes. This is far from being an accident or a passing situation which could be altered with a little bit more effort, nor is it a sign of a lack of endeavour or insight on the side of teacher educators. By definition the university in a capitalist society is just this - non-labour, non-professionalisation, non-reflection. It is a hopeless romanticism to believe it could be otherwise.

As has previously pointed out, the formal Swedish initial teacher education for vocational teachers in the field of industrial and commercial occupations is actually only one year of duration, consisting of courses in education, didactics, and practice, and a small research task. Hence the major part of the teacher education and training actually takes place at places of work, as several years of professional experience are required for entrance to teacher education. Hitherto almost no research has been done on this question, which illuminates the education and socialisation processes of Swedish vocational teachers, and how the two parts of initial training - the professional work and the formal educational-didactic course - contribute to the shaping of a professional identity of vocational teachers. Furthermore, we know little about the socialisation of vocational teachers in their daily work of teaching, situated between and influenced by the different ideologies of two separate worlds - those of working life and the academic teaching professions.

Considering the short periods of site based training and absence of formalised education demands on trainers, it is doubtful if one can even speak of a trainer professionalisation, in industry and commerce. However it is evident, that the conditions and processes of instruction above all are framed and shaped by the companies and their strategies to combine effective and profitable production with the (possible) investment of training future workers. The fact that 40% of all vocational students get less site based training than they are entitled to, because of lacking resources (time, money, trained instructors) is telling in this context.

(c) *Integration and consistency of the teacher education curriculum*. Seen from the perspective of a student, there is a clear lack of integration between the various components of the teacher education curriculum in the first (and in the second) phase. Academic teachers in general tend to emphasise the scientific aspects of their special field of interest, with little regard for questions of teaching methodology, and there are often different chairs for a subject area and its methodology. There is a high degree of

”departmentalisation”, as the subjects/disciplines to be studied are distributed to various faculties or departments enjoying a relatively high degree of autonomy within the broad confines of formal curricula for teacher education. Curricula are usually constructed to fit the specific qualifications, needs and aspirations of teacher-educators and are based in general on the specific values of the scientific community, with little regard for everyday problems of school teaching. It is an indisputable fact that there is no sufficient tradition at the universities for generating and passing on the required knowledge and skills to teacher-students in accordance with the workplace characteristics of the teaching profession.

Although there has been a wide-ranging debate in the educational sciences about the formal and the hidden curriculum in the 1970s, it is extremely difficult to say whether this debate has had any influence at all at the level of teaching and learning in Higher Education. Even in teacher education, where this seems to be more absurd than anywhere else, disturbing thoughts about the effects of the hidden curriculum are evidently banned from the thinking of teacher-educators.

In Sweden, teacher education for vocational teachers and academic teachers are completely separated. While the former student category is required to have spent some years in working life before they are accepted to teacher education, the students in academic teacher education have often got no such experience at all, and the possibilities to practice at vocational programmes within Teacher Education for Upper Secondary School are limited. That is: these teachers are not prepared to integrate theory and practice if and when they teach in VET. Also, their teacher education suffers from the same lack of integration and consistency between the first, subject-oriented years and the last years of theory and practice of teaching, as is discussed in the German case.

(d) *Autonomy of the learner. Relevance of research in teaching and learning processes*. As far as trainers receive any formal education, be this in Germany or in Sweden, this would not be done under the postulate of supporting and enhancing their self-determination and individual responsibility for the outcomes of teaching and leaning processes. Their main if not exclusive responsibility is towards the employer and their foremost duty lies in following directives and orders of superiors and management in general.

In theory the situation of students in Germany is different, as the combination of teaching and learning with research has always been regarded as a condition for autonomy. However, teacher-students in Germany mostly do not seem to value educational research highly, very often just being interested in learning the ’tricks of the trade’. They tend to show little understanding of the research issues and methodological problems in the Educational Sciences which becomes evident in their ways of dealing with the obligatory thesis (where the thesis carries enormous weight in the German tradition) or in the oral examinations at the end of their studies (in their turn carrying enormous weight), both often betraying a very low level of reflection and critical analysis. On the other hand, it has to be admitted that educational research does not play a significant role in initial teacher education, that there are few systematic attempts to mediate research for students and to induct them into the procedures of educational research. Teacher educators appear to clearly separate research activities and teaching, without making very clear the research basis of their teaching (assuming that it has any). However, more research elements in teacher education do not automatically solve the problem. The existing separation of the Educational Sciences from theories of social development and the division of labour between different academic disciplines has narrowed the vision of educational research in a way that strictly limits the relevance of the results for whoever might want to benefit from them. This problem has become even more critical with the rapid progress of specialisation which we have witnessed in the Educational Sciences in the past twenty years.

Today, most teacher education programmes in Sweden include a small (5-10 weeks of duration), independent research task. However it is still an open question to what extent this contributes to a critical understanding of teacher practice and promotes an interest in research issues of the students. One may add, that educational research on vocational training and didactics is very limited in Sweden, which of course is a serious problem in itself and also in the context of teacher education.

(e) *Relationship between teacher educators and students*. Formal institutionalised learning processes

tend to play a very marginal role for trainers. In particular there is no need for them at all to participate in any courses in preparation of their pedagogical role or the examinations required by the respective legislation. Their activities including any learning processes would be under the control of the employer first of all.

Within the teaching and learning processes of teacher education regular contacts with teaching staff are of a much greater importance. Today student criticism of teaching staff tends to be extremely negative in Germany, although it could not be assumed that all criticism is automatically justified. Some of it may just be due particular expectations of students or to the particular circumstances under which students find themselves obliged to pursue their academic studies nowadays and which represent a dramatic change in comparison with the experience of earlier generations. Students appear to have a low esteem for the pedagogical competence of teaching staff, and indeed pedagogical competence has by tradition been regarded as a very unimportant element in the preparation of teacher educators for their job and in career promotion at universities. On the other hand, it is a telling fact that students complain about the absence of certain personality factors which they value even higher than any teaching competence, above all 'decent treatment of students', 'amiable, friendly behaviour', 'interest in persons', 'confidence in abilities and autonomy of students', 'enthusiasm for the respective subjects taught and for the job in general'. At this point a certain level of alienation between teacher educators and students becomes clearly visible. In part it could be explained against the background of few contacts between teacher educators and students as a result of a particular German tradition of structuring academic studies (or rather not structuring them very much). Finally, it could often be heard that students regard teacher educators as having a low motivation for the 'dirty aspects' of their work, like course teaching, examinations, assessing written work, etc. All in all, in the opinion of students, teacher educators and their respective instructional faculties have very little impact on students' learning processes. This may be regarded as a natural result of the indisputably low quality of teaching (not excluding that there are individual good teacher educators here and there), or rather as a matter of differing emphases and different criteria and evaluations between teacher educators and students. It may also be an indication for the most important learning processes of students not taking place in Higher Education at all, which seems to be particularly true of learning processes of teacher-students.

(f) *Formal and informal processes of life-long learning*. It has always been taken too much for granted both in Germany and in Sweden that prospective teachers are in fact acquiring the necessary competence and knowledge for teaching inside teacher education institutions, although there is indeed very little positive evidence to support this view. Somewhat ironically it might be stated that the real agenda of teacher education institutions rather consists in teaching prospective teachers how not to teach and why learning is and has to be something completely unattractive and boring. Certainly there has never been a lack of suggestions on how to improve the present deplorable state of affairs. However, we have to face the fact that teaching at the level of VET continues on the basis of formal education producing non-professionalism and non-competence - without major catastrophes following directly from this. Quite evidently most teachers succeed in acquiring at least some basic competencies outside formal processes, before and mainly after having gained the formal status of qualified teacher, in an informal life-long learning process. In spite of other influences, it could be assumed that life-long learning does mean above all learning on-the-job and that this learning on-the-job continues to play an absolutely central and fundamental role in teachers' careers and in the acquisition of competencies. This implies the necessity of regarding experience (and perhaps also reflection on that experience) as the main method of acquiring pedagogical knowledge and competence. Changes, even from the same sort of experience, will not occur in a uniform manner but depending on personal qualities, intentions, prior experiences, social origin, etc. of teachers. It is, however, important to stress that on-the-job learning presupposes specific school and classroom contexts and specific impacts of such contexts. The kind of generalised knowledge and competence independent of contexts, as the one initial teacher education usually focuses upon, will never be achieved through experiential on-the-job learning. Any change of context will inevitably implicate the teacher in new learning processes.

In Sweden, the necessity to continuously provide vocational teachers with an updated knowledge of

work life and of modern methods and technology, *and a critique of the prevailing conditions in this aspect*, have been a recurrent themes for decades, when industry and trade unions have discussed VET. Particularly in the 1990s, new demands of good theoretical knowledge have been added. Formally, the possibilities of further education are rather good. The principals are responsible for establishing annual individual developmental plans for each vocational teacher, stating what kind of education and work practice he or she should undergo. Further education courses are arranged by several universities in co-operation with the municipalities, and three of the four vocational teacher categories are qualified to enter university studies directly after initial education and training, both in their respective subjects and in Education. However, only few teachers in the programmes of technical vocations have followed such additional higher studies. Also, very few vocational teachers have participated in some kind of work practice after their own initial teacher education, which in most cases was completed several decades ago. There are certainly both practical-economical and more psychological obstacles preventing this kind of further education to take place, but few serious and systematic attempts to overcome them.

(g) *Governance of professional education for trainers and teachers*. In Germany the situation at the level of governance of training the trainers and teacher education has not changed much over the last decades. There have been concrete attempts in the late 1960s to increase the influence of the state on formal requirements to be made on the training of trainers at company level through framework legislation but it could hardly be claimed that this has had substantial effects. Loopholes are still big enough for employers in order to be able to largely disregard such attempts. Thus it is in fact rather a matter of established practice and of the personal judgement of individual employers what kind of specific education and training the trainers would need and are to be given. Matters are different for the education of vocational teachers, with the highest demands being put on those who would teach exclusively at a vocational school, in a tenured position or not (*hauptamtliche Lehrkräfte*), and lesser demands on those who would teach only for part of their time at a vocational school (*nebenamtliche Lehrkräfte*). Responsibility for the education of vocational teachers lies exclusively with the state at the level of the Länder which means that each Land has the right to define its own norms of teacher education for the first phase (university) and for the second phase (separate *Studienseminar*) within the wider framework of agreements concluded between the Prime Ministers of the Länder or between the Education Ministers. This still leaves enough room for each university practically having its own particular model of educating and training prospective vocational education teachers.

In Sweden a reform of the universities in 1977 had resulted in the creation of a single and coherent system for all post-secondary education that encompasses the traditional universities and various professional colleges. All teacher-education accordingly became part of the 'new' university organisation, which in principle consists of state universities and university colleges. The university colleges have no faculties and thus only offer courses at the undergraduate level. A common trend in the debate about teacher-education concerns the problems associated with the 'universitisation' process. The balance between the academic and the professional character of teacher-education is thus still a major issue. Recent discussions in regard to teacher professionalism in Sweden and elsewhere have added fuel to that debate. One of the issues that has emerged concerns which degree programmes in initial teacher-education that should be given solely by the universities. The issue at stake concerns, on the one hand, the academic status of the university colleges and, on the other, the problem of maintaining a certain uniformity or equality in the nationally validated teacher-education programmes. Activities at Swedish universities and university colleges are in recent years undergoing the most intensive period of change since 1977. The focus of the 1993 Higher Education Reform was on deregulation. A new system of management control which involves more decentralised decision processes has been introduced. The centrally determined study programmes have thus partly disappeared, to be replaced by local decisions regarding which courses and programmes are to be offered to the students. As a result, the rules for admission and selection now have become a matter for decision at the local level, to mention but one example. Increased emphasis was put on quality control and a new system of funding introduced. These changes were initiated by the Conservative coalition government, but so far the new Social-Democratic Government has not announced

any profound changes concerning the governance of universities and university colleges.

3. Comparative Research on Vocational Education and Training: the German-Swedish working group

Social control and opposition as the essence of developments in Vocational Education and Training

The picture we have presented so far of the Swedish and German systems of vocational education might be interesting for readers in many of the details presented, as comparative material like this is not easily available. However, we have to be clear about the limits of current work, including our own, as some very fundamental questions have remained untouched. These are basically questions concerning the nature of social systems in Sweden and Germany and their effects on VET in the two countries. Within the sphere of production and circulation the division of labour and the hierarchical structure of skills and competences have undergone dramatic changes in all industrialised countries in the post-war period. While Sweden and Germany have reacted by constructing (or simply maintaining) apparently very much different systems of VET, with different philosophies, different value systems, different forms of relations between major actors, different strategies of implementation, different approaches to governance, etc., both are found to be confronted with the same fundamental problem - namely that of maintaining social control in the face of oppositional movements. This is an aspect which is almost completely neglected in relevant research, although it could be claimed that it is the most basic and essential aspect in understanding the role of VET in capitalist societies.

Social control needs to be analysed as a dynamic social process involving actors, strategies and contexts, instead of producing a kind of artificial and fantastic still life picture of structures, organisations, legal frameworks and funding provisions, clearly defined and neatly laid out, which seems to change only once in a decade (at best) with new editions of the relevant handbooks.

Hence detailed analysis is required about

- the changing *general social and political context* for deploying strategies of social control and the respective problems of power and control arising in particular historical situations, emphasising social processes of change and transformation and describing the factors and causes behind them;
- the specific *functions of education and in particular VET* in recruiting young people for the world of labour (or in failing to do so), in producing the necessary motivations and ambitions, in promoting certain work-related general attitudes and unspecific skills, in contributing to an education for citizenship and democracy, in creating a general feeling of confidence in and positive support for the structures and values of capitalist society (perhaps also in comparison with other kinds of strategies of social control);
- the *processes of VET at the level of education policy,* including the positions and influence of different actors involved in the politics of VET. One of the major problems consists in succeeding to go beyond a merely formal listing of different groups of actors and their positions and in drawing conclusions about the weight, the influence, the power, the efficiency (or whatever one might want to call it) of actors in enforcing or in opposing strategies of social control. Traditional research has constructed, although more implicitly than explicitly, formalised and stable hierarchies of influence and power, assuming a sort of omnipotence of governments in planning and directing the dynamic development of society including the education system. Evidently, the assumption as such is perfectly in line with the prevailing self-congratulatory and irrealistic self-image of governments and politicians but ignores the relevance of class factors and other groupings of bourgeois society;

- the *processes of VET at the level of teaching and learning processes* in companies and schools, in particular work experiences and learning experiences of trainers/teachers and apprentices/ students, as expressing and representing tendencies of social control; that would include processes of teaching and learning related to the official curriculum and to the hidden curriculum, processes of selection and the phenomenon of dropping out, procedures of assessment and testing and their effects, the results of teaching and learning processes, particular efforts of improving the quality of teaching and learning including modularisation and new learning methodologies, certification strategies, etc.;
- the *results of VET* against the background of the development of systems and processes of social control in the field of vocational education, particularly as viewed in a (long-term) historical perspective (possibly including comparison of historical key situations).

The very fundamental problem of such analyses, again one which is almost completely neglected in research, lies in their ability of transcending a level of investigation and hypothesis being restricted to the triangle of employers, trade unions and government as the privileged policy makers. It is of course not implied that these groups are of no importance or that their policies should not be studied. Quite the contrary. However, in limiting ourselves to this particular perspective young people undergoing processes of VET (and in similar ways also teachers and educators in the field of vocational education) are usually treated as mere objects of the bargaining and political strategies of these privileged actors, young people themselves seemingly playing no role in shaping policies and seemingly not even having orientations and objectives of their own in policy matters. Perhaps this reflects their traditional position in a hierarchical relationship inside systems of VET. It includes above all a basic orientation of teaching-learning processes on passive learning models the inefficiency and the counterproductive effects of which are no secret. Above all it reveals a general lack of effort (or motivation) in relating learning processes to the reality of class society and experiences made by different groups of young people within this society. As a result it appears that there is simply no opposition to policies of social control, just the permanence of hierarchical structures and a kind of perfect integration into structures resulting from the bargaining of the 'big players'. However, it could be assumed that policies of social control not only happen to have as their counterpart specific forms of resistance and opposition from the side of young people but are systematically provoking and actively promoting them just because of the continuing impact of class factors.

It is a telling fact that even in critical analyses young students, young workers and apprentices rather tend to appear as being caught in situations of suffering, repression and inhumanity lying completely beyond their control but not as subjects and policy-making actors themselves. If this politically motivated prejudice and the related abstractness of policy analysis are to be overcome, more detailed research is needed on

- the changing social and political context of the development of resistance and opposition to VET in schools/enterprises/administrations;
- the everyday processes of VET in schools/enterprises/ administrations and the development and impact of phenomena of the refusal of education and training, including effects on the attitudes and behaviour of teachers and educators;
- the tendencies in modernising the professionalisation of teachers/educators in VET in relation to the development of resistance and opposition on the side of young people;
- the resistance and opposition of young people to VET in a historical perspective (possibly including comparison of key situations of a breakdown of social control mechanisms, e.g. under Nazism);
- the history of theoretical reflection and analysis of the phenomena and the causes of resistance and opposition to VET.

Politics of comparative analysis

From its origins to the present day, and particularly in the period since the Second World War, Comparative Education has continuously presented itself as a reservoir of nationalist fantasies and prejudices, phrased in terms of the diversity of national cultures and the uniqueness of national characters, in the worst of all cases national systems being upheld as models for imitation to the rest of the world (see in particular the unfettered propaganda at an international level around the German 'dual system'). This kind of political role of Comparative Education has among others found expression in well established and generally accepted ways of comparing educational systems, including a wide-ranging consensus on structural elements and basic research strategies in Comparative Education, reproducing self-fulfilling prophecies of the diversity of education systems.

An alternative strategy of comparing education systems, including an alternative vision of the political role of Comparative Education, would be motivated by an interest

- in the origin and development of educational reality;
- in placing the analysis firmly in a contextualised study of social and political processes;
- in criticising the nationalist implications of the dominant ideologies in comparative analysis; and
- in combining the perspectives of Comparative Education with those of the History of Education.

The methodological consequences of such an alternative approach are quite evident. Thus, it would inevitably result in an alternative definition of the subject to be studied ("Vocational Education as a particular form of social control and of developing opposition to mechanisms of control" instead of "the diversity of cultures"), alternative ways of selecting sources of information on the subject ("the reality of social and political processes" instead of "the normative legal basis and the normative administrative and political definitions of education systems") and choosing from the available methodological options ("critique of social systems" instead of "reading and quoting from texts"), as well as alternative strategies of interpreting research results ("focus on understanding fundamental problems in the historical development of social systems including VET" instead of "reproducing self-fulfilling prophecies") .

Comparative Education in its traditional form has ended up in a dead-end street. There could be no doubt about that. In the past we have seen an endless flood of analyses being thrown on the market, in particular in the context of European integration, reproducing nothing but the prejudice of diversity, leading to the most superficial views on political integration and tolerance, with all the evident political implications for the role to be played by those who arrogantly claim to be the peoples' political representatives. There is absolutely no legitimation for continuing with such kind of meaningless business. But there is an urgent need for coming up with alternative suggestions for serious comparative analysis.

The German-Swedish working group

Some of the members of the German-Swedish working group on comparing systems of VET have been in regular contact with each other since the beginning of 1997. During the first half of 1997 there were attempts on both sides to look for potential collaborators in the research work to be undertaken. The group now comprises the following colleagues (not all of them having taken part in the meeting in Umeå and in the production of this publication):

Participating on the German side:

1) Universität Osnabrück, Fachbereich Erziehungs- und Kulturwissenschaften
(Dr. Theodor Sander)

2) Deutsches Institut für Internationale Pädagogische Forschung
(Uwe Lauterbach, Philipp Grollmann, Wolfgang Hellwig, Dr. Hermann-Günter Hesse, Ute Lanzendorf, Dr. Harry Neß)

3) Universität Münster, Institut für Didaktik der Geschichte
(Dr. Alfons Kenkmann)

4) Universität/GH Kassel, FB 2, Institut für Berufsbildung
(Prof. Dr. Martin Kipp, Dr. Meinhard Stach)

5) IG-Metall Vorstand, Abt. Berufsbildung
(Eva Kuda)

Participating on the Swedish side:

6) Umeå universitet, Pedagogiska institutionen
(Dr. Lisbeth Lundahl, Sigurd Johansson)

7) Lund universitet, Institutionen för ekonomisk historia
(Dr. Anders Nilsson)

8) Uppsala universitet, Institutionen för Lärarutbildning
(Dr. Rune Axelsson)

9) The Swedish Confederation of Trade Unions(LO), Dept. of Industrial Policy
(Lise-Lott Hansson)

It was proposed at an early date from Umeå to apply for funding for an expert meeting on some basic aspects of comparing the German and the Swedish system of Vocational Education in autumn. Such funding was in fact provided from the Svenska Institutet, Stockholm, and the meeting was held in Umeå on 13 and 14 September, 1997. In preparation of the meeting all colleagues involved were invited to submit a paper. At the meeting itself texts from German participants were reviewed and presented individually by Swedish colleagues as discussants and vice versa. In addition there was time for debating the texts in the group. The small group of experts consisted of Swedish, German, and, in one case, Danish researchers in the fields of education, history of education and economic history. Also two trade union representatives, both with the task to watch and develop VET from a trade union perspective in Sweden and Germany, respectively, participated. The contributions in this volume all emanate from this expert meeting.

On the Swedish side, in his article, *Anders Nilsson* (Lunds universitet) presents an interesting study of

new local policies of VET, as a result of the ongoing decentralisation and deregulation of educational governance in Sweden. He is able to show, that multiple patterns of co-operation and competition between municipalities and local companies are emerging. A tentative conclusion is that the role of employers are strengthened and that of trade unions seem to become weakened in the new, decentralised planning of Swedish VET. *Lisbeth Lundahl* (Umeå universitet) analyses Swedish VET as a field of growing political importance, but also of tensions and dissent, in the 1990s, and contrasts this to the rather marginal position at the arena of educational politics and debate, that issues of vocational education and training traditionally have had in Sweden. In a number of studies it has been concluded that employers of the big, modern companies prefer workers with a good generalist education, who are flexible and capable of problem solving and communication. *Sigurd Johansson* (Umeå universitet) throws doubts on this commonly held view in his article on selection principles in the recruitment of workers at the shop floor, as he in his Nordic study found that workers with a branch specific vocational education or a similar practical educational background, were clearly preferred to persons with a longer, academic education. *Vibe Aarkrog*, finally, describes and discusses recent developments of the Danish system of Vocational Education and Training, a VET system which can be said to combine traits from both the German and Swedish traditions.

On the German side, *Alfons Kenkmann* (Universität Münster), drawing on research in the context of his doctoral dissertation, analyses oppositional movements on the side of sub-cultural youth during the Nazi period and in the first years after the Second world war. In the face of ever stricter labour market regulations and compulsory work in unattractive jobs, even beyond the end of the war, young people showed a range of interesting reactions in an attempt to evade consequences of their being forced into specific jobs and specific job conditions. *Theodor Sander* (Universität Osnabrück) in his contribution analyses long-term trends in the development of VET in the former German Democratic Republic but particularly the situation in the 1980s when the VET system was fully disintegrating. It had proved impossible to plan or direct any aspect of VET through central initiatives and orders. The most fundamental aims and objectives of government and party policies in the field of VET, in particular all attempts of enhancing the level of ”communist education” in the sense of promoting adherence to the productivist ideology of the leadership, were sabotaged by the actual development of GDR class society and the very factory experience of young people. Traditional allies of the central bureaucracy, in particular the FDJ and the FDGB, had become completely unreliable and inefficient, both of them representing nothing but giants standing on feet of clay. The party hierarchy had decomposed in ways that the top levels increasingly complained about the regional and local levels having a complete disregard for decisions which had been taken in the Politbureau or the Central Committee. Individual enterprises were under the increasing pressure of the crisis cycle and the declining efficiency of production and had to react to it, even if this meant ignoring directives and orders from the central bureaucracy. Above all VET as offered in schools, training centres and at the workplace met with extremely hostile reactions from the side of apprentices and thus the results of education for work as the centrepiece of VET were nothing short of a disaster for the leadership. *Eva Kuda* (IG Metall, Frankfurt), representing views of the trade union movement, in particular the IG Metall, describes tendencies of and reasons for the present ”declining attractiveness” of the dual system of VET. They are seen as lying mainly in certain structural weakness in the overall education and vocational training system. This refers to the inequality of general and vocational education and also to the unsatisfactory relation between economic conditions and the willingness to provide training. Deregulation and downgrading of the VET system, as currently discussed by employers and government, are bound to result in an ever increasing number of young people turning away from the system of dual training and favouring (or having to favour) school-based and vocational training courses. Quite logically, this development will be at the expense of all those who are socially - and in terms of school education - disadvantaged. Their job and future prospects will deteriorate on a long term basis through deregulation of in-company vocational training. *Uwe Lauterbach and Philipp Grollmann* (German Institute for International Educational Research, Frankfurt) characterise the German dual system as too static, despite its many advantages and strengths. When the dual system does not succeed in responding to the new challenges visible today, when it does not succeed to modernise itself enough to meet the demands of the post-industrial society, it will have growing difficulties being

recognised as equal to other educational roads such as those offered by the universities and specialised colleges of higher education. Thus drastic reforms within the dual system are motivated, both regarding its inner structure and the relation to universities and specialised colleges of higher education. Furthermore, a number of detailed suggestions and proposals are given in the article, which could be elements of a possible modernisation process. *Meinhard Stach* (Universität Kassel), also dealing with the present crisis of VET, puts contemporary developments into a historical perspective. The crisis of VET is understood as resulting from a complex of different problems which in part have accumulated over decades, among them in particular the decreasing offer of apprenticeships, the intensified selection within the dual system, the growing importance of further training at the expense of the value of initial training, the still dominant role of small and medium enterprise in training, the insufficient attention given to the disadvantaged and the disabled, the growing tendency of young people to prolong their general education studies (”flight from VET”), and the inadequate response to developments from an industrial economy to a service economy.

Participants to the expert meeting were unanimous that the meeting in Sweden should be not be a one-time effort but rather the beginning of a long-term co-operation.

Notes

1 It should be noted that we mainly discuss VET for occupations in the private sector, and especially for industrial and service occupations.

2 In the context of this introduction all indications refer to Germany in its present unified state, not to historical situations prior to unification in 1990.

Anders Nilsson
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The Emergence of New Models of Organisation of Vocational Education in Sweden[1]

Introduction

During the last decade, programmes aimed at an increasing volume of vocational education and training of a higher quality have been much in vogue. This is true of practically all industrialised countries, with the USA as a notable exception and the Japanese on-the-job training system as a special case (Shackleton et al, 1995). It is particularly the case in the European Union, where several programmes to enhance the volume and quality in vocational training have been launched.

Sweden is no exception to this tendency. One interesting feature of the Swedish policy is that several new organisational forms have emerged. From the 1940's onwards, a large part of the vocational education has been carried out by public authorities, and since the early 1970's, this is true of almost all vocational education in Sweden. Up to the late 1980's, the responsibility lay, either directly or indirectly, with the central government. Recently, however, responsibility and the fiscal means have been shifted over to the municipalities. This decentralisation has also implied that the previously very uniform system is becoming more diversified. Furthermore, the possibilities for firms to participate in vocational education have increased. Firms, in particular in the manufacturing industry, have seized upon this opportunity and invested quite substantially in vocational education in different forms. The purpose of this paper is to present and discuss these new forms of organisation in vocational education; why they started, how they are run, and what the expectations from them are. It should be stressed that only vocational education preparing for work in the manufacturing industry is discussed in this paper.

Theoretical approach, data and method

Vocational education can be seen as an arena where several interest group struggle to exert their influence over the contents of the education and training. This "public choice approach" (Olsen 1984) will not be developed further in this paper, but some of the crude elements of the theory are important to comprehend in order to follow the discussion of the results. Theoretically, markets, e.g. the labour market, as well as political fora, are regarded as "arenas", where interests groups compete for influence and power. A number of studies have demonstrated how markets have been affected by interest groups (e.g. bureaucracies, trade unions, organised industry). In the case of Sweden, the markets for housing, agricultural products, and labour, have been influenced by this tug of war between interest groups (Meyersson et al, 1990). This tradition has some bearing in an analysis of Swedish vocational education. Its volume as well as its content is in a sense determined in a "market", where a number of interest groups are asserting their influence, both from the demand and the supply side. It seems plausible that the possibilities for interest group to act are particularly large in the short periods when drastic changes occur almost simultaneously in different areas.

The early 1990's constitutes such a "formative phase" (Rothstein, 1992). In these years, the Swedish economy in general and the manufacturing industry in particular underwent its deepest crisis since the 1930's. This implied, among other things, that the economic conditions for the schooling system worsened. In addition, the municipalisation in 1991 brought about new conditions and opened up for possibilities to change existing forms of vocational education. The changes have been much more far-reaching in education and training programmes aiming at the manufacturing industry than in other programmes. The main reason is the fact that there has been a wide-spread dissatisfaction among firms with the quality

of the industrial programme. The inability of the authorities to "deliver" is an important background to the present development. With the decentralised system, possibilities have emerged for different groups, more or less well organised, to change the contents as well as the organisational forms of vocational education to suit their own particular interests. Examples of such groups are politicians with a particular interest in education, teachers, trade unions, and local firms. These groups have, in collaboration or in conflict with each other, potentially gained better opportunities to increase their influence at the expense of the school authorities in the municipalities.

The paper is based on interviews with representatives of groups that are (or could be expected to be) actors in the "arena of vocational education", in the southern Swedish region of Skåne. They have been asked how vocational education for manufacturing industry is organised in their municipality and, in particular, how firms are involved. In addition, questions have been posed to map out the motives for various groups to engage in vocational education. Finally, the representatives have been asked what their expectations are. Representatives from most of the potential interest groups have been interviewed. These include the division heads of the regional bureau of The Swedish National Board of Education; people responsible for vocational education at the municipality level and/or at the school level (administrators, principals etc.); representatives from the firms' school; representatives for local firms; and one trade union representative. One potential interest group, municipal politicians, has deliberately been left out from the first round of interviews. The paper is based on a total of about 30 interviews, carried out between October, 1996, and March, 1997. For details, see the appendix.

Interviews have some drawbacks as an investigation method. Peoples' memories are fallible, but this seems to be a minor problem in this context, where people have been asked about recent developments and current expectations. Some of the information supplied can be (and has been) controlled against written material, e.g. number of students, enrolment qualifications, and schooling costs. Another, and much more difficult, problem is that people may supply skewed information when it comes to motives and expectations. A certain collaboration is obtained by asking representatives of the different interest groups not only what their own motives and expectations are, but also what they believe those of the other parties' to be. Mainly, however, the researcher has to trust his own judgement. The issues touched upon do not seem to be controversial, so from that perspective there is no reason to suspect misleading information. Furthermore, the people interviewed are all dedicated to questions concerning vocational education and they have all participated willingly in the interviews. To conclude, I have no reason to believe that information has been false, misleading, or withheld. The material presented in this paper illustrates the standpoints of the different parties as correctly as one can reasonably demand.

New organisational forms of vocational education in Sweden - four models

For a long time, vocational education aimed at the manufacturing industry has been organised in a uniform, school-based manner. In the 1970's and during most of the 1980's, it was organised in the line of study "workshop techniques," (*verkstadsteknisk linje*)[2] a two-year programme where emphasis was laid on the acquisition of practical skills, but the programme also contained a limited amount of theoretical components. The programme was essentially school-based although some practice in workshops was an integral part. The allegation that the programme recruited boys who were tired of school and were only waiting until they became 18 years old (and, in practice, got access to the labour market) is perhaps exaggerated but it is not entirely false. The programme provided a training which was useful in the prevailing industrial organisation of the 1970's. During the 1980's, this situation changed. Technical and organisational change implied that firms demanded a better theoretical basis among their employees (Nilsson, 1994). Vocational education was re-organised into three-year programmes. The successor of the line of study "workshop techniques" is called the "industrial programme" (*industriprogrammet*). This is still a rather uniform programme but it includes possibilities for adaptation to local conditions. With the municipalisation of the upper secondary school in 1991 (including vocational education), the opportunities to create local

varieties of the industrial programmes have increased. Simultaneously, however, dissatisfaction with the programme has increased. The students have had great difficulties with the increased amount of theoretical education at the same time as firms' demand for workers with a better theoretical knowledge has increased during the 1990's. In this problematic situation, alternate models for vocational education have emerged during the past few years. The new models have come into existence so recently that no students have as yet finished their vocational education. The effects on recruitment pattern are already obvious, however. At present, four different models of vocational education in the manufacturing sector can be discerned in the region. They are discussed in this section.

The industrial programme

The industrial programme is a three-year, full time upper secondary education and one of the sixteen national programmes in existence. About one-fourth of the time spent is devoted to theoretical subjects, slightly more than 50 percent consists of vocational subjects, and in the remaining 20 per cent the student can choose between several optional courses. A characteristic treat is the "education in workshops" (*arbetsförlagd utbildning*), which implies that at least 15 weeks should be spent in workshops. This part of the education has often turned out to be problematic. It implies that the time spent in a workshop shall contain education as well as practice. This poses new demands on the firms, and a large number of them decline to take part in the new system. They claim that they do not have the personnel, or time, available to give the students proper instruction. Thus a paradoxical situation has arisen. Although the industrial programme allows for more time at, and a closer collaboration with, workshops, the situation is in places worse now than it was with the two-year programme.

This is one major problem in the industrial programme. Another is the fact that the programme enjoys a very low status among students. Few students apply for the programme, and those that do tend to have low motivation and very low grades from the comprehensive school. They are, in other words, "low quality students," often with great difficulties with the theoretical subjects in the industrial programme. The low quality characteristic of the programme reinforces the firms' reluctance to provide the students with "education in workshops". Many representatives of the firms a) do not believe that the students will be able to profit by the "education in workshops" and b) do not intend to hire them after school, anyway.

In spite of all the widely recognised problems (of which only two of the major ones have been mentioned above), the industrial programme was the only vocational education aimed directly at the manufacturing industry's competence needs in the region until two years ago. In the larger cities of the region, it is still totally dominant. Several alternatives have emerged, however. One of the alternatives considered is a renewal of the old apprenticeship system.

The apprenticeship system

In Sweden, the apprenticeship system came to be regarded an outdated system from the late the 1950's. The Employers' Federation (*SAF*) and the Swedish Trade Union Confederation (*LO*) argued, within the framework of their joint organisation the "Vocational Council of the Labour Market" (*Arbetsmarknadens yrkesråd*), that workers needed a better theoretical understanding of the work processes and a more general vocational training. (Olofsson 1997) The importance of the apprenticeship system diminished, and with the advent of an integrated secondary school system in 1971, apprenticeships became a rare exception.[3] It did not fit into the new organisation and, furthermore, wage negotiators were not happy with a specific pay system for apprentices. Still, the interviews have made it evident that in many firms the absence of an apprenticeship system has been regretted. With the establishment of the new system of secondary education in 1991, local models were encouraged. In some municipalities, the possibility to reinstitute an apprenticeship system has been discussed. But, although it seems fair to characterise industrial education in a few municipalities as "pseudo-apprenticeship," a full scale system has materialised in only one place. In the municipality of Svedala,

apprenticeships have been available to a limited number of students from the autumn term, 1996.

The main motive to engage in an apprenticeship system is to secure a long term, high quality labour supply. The apprenticeship programme now running in Svedala is more demanding than the ordinary industrial programme. The students study theoretical subjects to the same extent as students at this programme do, but in addition they spend the remainder of a normal working week (40 hrs) in training. In order to cope with these requirements, a student has to be highly motivated and, generally, quite able. The problem for the firm is how to recruit such students. The answer has been to offer the students benefits. In addition to the apprentice wage, the students are implicitly guaranteed employment after a successful completion of the programme. Similar arrangements exist in places where a ”pseudo apprenticeship” system prevails. There are, of course, no apprentice wage incentives, but promising students are given opportunities to earn some extra money by working during weekends and they are also first in line for the much sought after summer jobs. Implicitly, employment after successful studies is also guaranteed.

These incentives have proved successful. The apprenticeship programme, and, to a somewhat less degree, the ”pseudo-apprenticeship” programmes are much more attractive to prospective students than the industrial programmes. But in most municipalities where an apprentice programme has been considered, it has been rejected. The school authorities have up to now been very doubtful, and it has required at least determined firms' representatives to pursue the matter. The main reason is doubts that the benefits to the firm will outweigh its costs. In many firms, no new labour is being hired, which naturally implies that recruitment benefits are zero. Other firms anticipate a future recruitment but are still hesitant to undertake the costs. They fear that successful students would be too attractive in the labour market and seek employment elsewhere. The obvious countermove on behalf of a firm would be to make the education and training during the apprenticeship period sufficiently firm-specific. Here, however, two obstacles arise. One is the school system. An apprenticeship programme needs approval by the national Board of Education and they don't look kindly upon firm specific programmes. Indeed, the existing programme in Svedala has had some controversies with the representatives of the regional Board of Education. In addition, it is doubtful if a three-year education can be very firm specific. Even if the theoretical components of the studies are disregarded, the education and training at a modern firm mainly contain elements of a general nature. The basic principles of, e. g., welding can be applied anywhere, and given this competence the specific requirements of a firm are quite easily obtained. This applies to an even larger extent to modern industrial methods such as CAD/CAM. These obstacles have been powerful enough to prevent full-scale apprenticeship systems in all municipalities but one. On the other hand, the system is sufficiently appealing to permit the existence of a ”pseudo-apprenticeship” system in a couple of municipalities.

Firms' schools

The apprenticeship system is one model of firms taking the full responsibility for vocational education. The other is the firm's secondary school, i. e. an educational institution run entirely by a firm, but where much more emphasis is laid on the theoretical contents of the schooling than in the apprenticeship system. In principle, there is little difference between the two forms. They are both run by a firm, with the explicit purpose to furnish that firm with its specific need of competence. The difference in theoretical instruction between the two is mainly a consequence of different competence needs. However, the practical consequences of running a school rather than an apprenticeship programme are, in the Swedish context, substantial. An apprenticeship is a form of employment, which implies that the firms' rules for admission, possible dismissal, length of ”school-day,” etc. take precedence over school regulations. A firm's school must, however, adhere to the same regulations that municipal schools do. As in the case of apprenticeships, firms' schools have been discussed in several cases, but at present only one has come into existence in the region.

Firm's schools are, throughout Sweden, only run by large export-oriented companies such as Volvo, Scania or ABB. The fierce international competition these companies are subject to necessitates a well

educated and trained work-force. The opinion of these companies is that today's Swedish vocational school system is not able to meet such standards. The regional example of a firm's school is run by Perstorp AB, which is a modern, process-based firm with a world-wide organisation for production and sale of, above all, chemical products. Their reason for starting a school of their own was to secure a long-term supply of qualified labour. The firm's reason for starting a school with an extensive theoretical component, was the opinion that traditional forms of vocational education, including apprenticeships, are too narrow. They contains so little theory that workers with such a background have great difficulties to profit from the internal training programmes of the firm.

Perstorp has put substantial resources into the firm's school. This includes well-equipped school premises with, for instance, one computer for each student. These premises are being let to the school on very favourable terms. The firm also defrays all costs in connection with the annual practice period in one the firm's subsidiaries abroad, and the supervision of students during practice at the firm. Normal running costs, however, are borne by the municipalities. The school is recognised by the school authorities and, consequently, each municipality is compelled to pay the standard cost for each student accepted at the programme.

The school has excellent resources but the programme is very demanding. It includes about 50 percent more hours taught than an average programme at the upper secondary level. In addition to a substantial number of practical moments, the students must study theoretical subjects equivalent to the natural sciences programme, the most demanding in the upper secondary school. One could assume that the recruitment of students to such a demanding vocational programme would necessitate substantial incentives. From the firm's school, however, the reasoning has been the opposite. The education must be of such a high standard that prospective students apply for it on its own merits, and no explicit benefits, such as a guaranteed employment, are offered. The recruitment pattern to the firm's school is completely different from that of the industrial programme. A large number of students have applied to the programme and only those with top marks from comprehensive school have been admitted. A substantial fraction of them is likely to continue their studies at the university level after secondary school, which could pose a threat to the firm's recruitment targets. However, the firm is confident that the students will become impregnated with "company culture" during their studies to the extent that most of them will return even after university studies.

The main motive for Perstorp to start a firm school was the absence of an upper secondary school in the municipality. In addition, high recruitment costs was an incentive. But other big companies in the region have not (yet?) followed Perstorp's example. In towns with long established schools, an alternate route has been taken.

The "technical" programmes

The fourth and final model - "technical" programmes - is similar to the firms' school in that it combines extensive theoretical studies with vocational studies, and it includes a substantial involvement by firms, but it is an integral part of the municipal system. The programmes exist, above all, in medium sized towns with long lasting industrial traditions. The exact structure, as well as the name of each programme, differ, but the core consists of theoretical studies corresponding to the main parts of the social science or natural science programme. The contents of the practical component differs according to the needs of the co-operating firms. In Trelleborg, for instance, continuous processing techniques are important, whereas in Eslöv mechanics and engineering are much more prominent.

This models meet several demands both from the firms and from the municipalities. It is built around a group of 5-10 firms (not one firm as in the case of the firm's school), which implies that there is an element of cost-sharing among the firms. A negative consequence, from the firms' point of view, is that each firm's possibility to observe and assess prospective workers during the training periods in a firm diminishes, since several firms are involved. The observation possibilities are still considerable, though, since the students spend most of their firm-based education in two or three firms, at most. There is also a potential cost-

sharing between the firms and the municipality, which, however, seems to be unrealised. Instead, the additional resources available are used for quality improvements.

The most important motive to start a co-operation programme, both from the municipality's and from the firms' point of view, was to improve the recruitment to programmes preparing for industrial work. To achieve this it was important to emphasise that the new programme is characterised by high quality instruction, and that the students will have access to modern equipment. It has also been deemed advantageous to give the programme a new name (technical programme, T 2000) in order to distance it from the low status of the industrial programme. In order to recruit students who normally would choose a purely theoretical programme, tangible incentives are also applied. In most cases, students at the new programme are first in line for summer jobs and, in addition, guaranteed at least one year of employment after successful studies.

The recruitment effects has been quite impressive in the two municipalities where "technical" programmes have been in operation for a year. It is often difficult to get a sufficient number of applicants to the industrial programme, but to the "technical" programmes only about one out of three applicants has been accepted. The "quality" of the students has increased considerably. The school administrators do not foresee any difficulties for these students to pursue their theoretical studies in a successful manner, nor have there been any drop-outs when the practical moments have started. An interesting side effect is that students' interest in the industrial programme has increased, too. When the new programme was launched, a lot of information on the conditions of work in modern manufacturing industry was given to prospective students. It seems that this, for the first time, has dispersed with the negative (mis)conceptions which young people have about industrial work. As a consequence, the traditional industrial programme has also been revitalised, with better and more motivated students than previously.

Who controls the new models in vocational education ?

In the introduction of the paper, vocational education was pictured as an arena where interest groups struggle for power or influence over it in order to promote their own objectives. The interviews have provided some evidence to support this notion, but it is far from conclusive. In the following sections, the activity of each of the potential parties' is reviewed.

Two parties seem to be of minor interest, the trade unions and the local politicians. There is little evidence from the interviews that trade union representatives have been important in the re-modelling of vocational education. This does not imply that they have been entirely passive; in some municipalities trade union representatives take a vivid interest in the organisation of education and training. There are, however, no indications that trade unions pursue a particular policy. The evidence rather points to a collaboration between firms and local trade unions; school authorities often describe them jointly as "the industry." With the possible exception of a couple of municipalities where the traditional industrial programme prevails, however, the trade unions are unquestionably the junior partner in that collaboration. The representatives of school authorities and of firms have been asked explicit questions about the role of politicians. Invariably, all concerned have claimed that vocational education is not an issue in local politics. Furthermore, in most municipalities the politicians are seen dispassionate in these matters. There are exceptions, but the main impression is that when the new forms of vocational education have been discussed and decided, the municipal politicians have not played important roles. Admittedly, these are not final verdicts, since the assessment of the trade unions' and the local politicians' importance rely mainly on other parties' evidence. Provisionally, however, it seems safe to conclude that any possible struggle for the main influences over vocational education has taken place between firms and school authorities. We will examine the evidence from each party, starting with the school authorities' point of view.

Attitudes from the school authorities towards firms' increasing participation in vocational education

The necessity of firms' participation in vocational education has always been recognised by school authorities. During the 1970's, however, the desirability of such co-operation was sometimes questioned from both

sides. The then new two-year lines of study replaced apprenticeship or apprenticeship-like systems in many places, and the new lines of study were regarded as being inferior by the firms. Schools, on their side, were sometimes reluctant to supply their students with specific skills for local firms. The mutual distrust was also a reflection of the overall tense relations between firms and the public sector at the time. From the mid-1980's, however, the relation between firms and schools has returned to a situation similar to the one prevailing in the 1960's; a notion that both parties are necessary in vocational education. However, the introduction of three-year programmes has implied that new, increased demands have been put on firms' participation. Whereas firms previously provided students with practice in workshops, they are now required to provide "education in workshops". Firms must provide not only practice but also some education. Small firms in particular have found this too demanding and decline to participate. They point at personnel shortages and to the fact that education in workshops is a costly enterprise. As a countermove some, but far from all, schools accept to defray some of the costs incurred.

The relative reluctance of firms to participate in vocational education is a reality which schools have learnt to handle. The new, and opposite, situation where firms are not only willing to participate bur also put demands on the schools' activities, seems to be more difficult to cope with. This is in particular the case in the region where the firms' school has been established. It has succeeded in recruiting among the top grade students, not only from Perstorp, but also from the surrounding municipalities. In other words, this nominally vocational programme is a competitor for students who would otherwise study theoretical programmes in the neighbouring upper secondary schools. The school authorities in these municipalities have to pay the firms' school the average national cost for students in the industrial programme for each student from their municipality accepted to the firm school. The attitudes of the school authorities in the surrounding municipalities are ambiguous. There is, on the one hand, a certain pride and satisfaction that the region is able to offer an education of extremely high quality. On the other hand, the difference in resources between the firm school and the municipal schools is so big that the equality between the two types of school is questioned. In principle certain doubts about the firm school exists in the municipal system. In practice, however, these doubts have been overcome so far. The firm school purchases practically all theoretical instruction from the upper secondary schools in the surrounding municipalities. In that sense, a certain symbiosis exists.

In the "technical" programmes, the symbiosis is taken a little further. The schools defray by far the major part of the costs and take care of all theoretical and some of the practical instruction. The firms are supposed to take full responsibility for the practical moments (education in the workshops) and for the possible practice abroad. The firms' influence is bigger than this, though. They have had influence over the precise modelling of some of the theoretical parts, the reason being that a correspondence between a school subject and its practical applications must be reached. This is not regarded as a problem on behalf of the schools - yet, one should perhaps add. These programmes are all new and the first year is predominantly school-based. Potential conflicts of interest will presumably not emerge until the second and third year of studies is underway. At present, school authorities have only positive attitudes towards the firms' participation in the "technical" programmes. It seems as if the schools have not had to give up any essential interests when these programmes were created.

In conclusion, school authorities do not claim that there has been a struggle for the influence over vocational education *in the cases where control has remained in the hands of the municipality*. The traditional industrial programme seems to be run without too much enthusiasm from any party and it's more a question of being able to manage the programme without running into total stagnation. The conflicts are not about the relative influence of a certain party but concern run-of-the-mill questions such as the amount of education in the workshops. The "technical" programmes have been designed jointly by school authorities and firms. If conflicts arose in that process, they have not been revealed. A more probable interpretation is that the two main parties had their essential interests satisfied without conflict. However, things may look a little bit different from the firms' perspective.

Firms' motives for engaging in vocational education

Two motives for engaging in vocational education stand out from the firms' point of view. The first is to secure higher qualifications among the newly employed. The second motive is to keep these people within their organisations after school. The latter is not a big problem to large firms in small communities, i. e. where apprenticeships have long been the favoured system for vocational education. The large firm is the only important industrial employer and working there is associated with a certain status. Furthermore, the education and training becomes quite firm-specific, which implies that the programme will not enhance the students' propensity to move elsewhere after school. The students in the apprenticeship programme and in the "pseudo-apprenticeship" programmes are very well aware of the fact that they have not only been admitted to a vocational education but also to a possible employment by the dominant firm. The firms (and the schools) see no reason why these students would not remain with the firm after completed studies.

The situation is similar at the firms' school, with one important exception. This firm is the dominant industrial employer in the community and has a good reputation as an employer. The firm school has deliberately recruited very talented students who are likely to continue their studies at universities or colleges. Some students might be persuaded to enter into employment directly after completing school. The majority of the students, however, must be convinced that the firm is also an attractive employer for persons with a university/college degree. To a limited extent, the *firm-specific training* becomes an investment in human capital which the students may find difficult to exploit elsewhere and is, consequently, an inducement to seek employment at the firm after university studies. More importantly, though, from the firms' point of view, is the possibility to supply the students with a *firm specific culture* during the studies at the upper secondary level.

The possibility of maintaining the well-educated students in their organisations is an equally important motive for firms to engage in "technical" programmes. But this model, which is less costly and requires less engagement than a firm school, makes it more difficult for each firm to fulfil the staff aspirations. First, these programmes are in effect in medium-size municipalities with a more diversified local labour market than in the small municipalities. Second, the opportunities to provide the students with firm specific human capital and a firm-specific culture is limited for each single firm, since several firms are involved in each programme. Obviously, fringe benefits (such as job guarantees or subsidised practice periods abroad) are means through which the participating firms hope to counteract the potentially greater mobility among the students in the "technical" programmes.

One could ask why the firms are eager to secure recruitment. The manufacturing industry has shrunk considerably during the last 5-6 years and the prospects of any considerable increase in the number of employees in the years to come are meagre. However, there are strong demographic effects at play. In Sweden, the 1990's and early 2000's will be characterised by a diminishing number of people aged 16-20, in other words the recruitment base is shrinking. In addition, a substantial increase in the number of retirements will take place in the early 2000's. Thus, the efforts on behalf of the firms should only partially be seen in the light of problems to recruit competent personnel today. There is presumably also a long-term strategy involved, where in particular large companies active in the international market do not believe that their long term recruitment requirements can be adequately met by the public educational system.

This idea is carried further by representatives of the firm school. Here, the motive is not only to increase recruitment to the company, but explicitly also to demonstrate that firms can and should take a bigger responsibility in the overall vocational education in society. As it was put during the interview: *"We don't want to just join in with the complaints about an inadequate modern vocational education, we want to offer a private alternative which is at least as good as the best which the municipal system can provide."* One of the firm's motives to start a school of their own is that it could be a part of a public debate on educational policy. Their idea to recruit the very best students and provide them with the very best instruction and equipment is not in line with the much more egalitarian public policy. The firm claims that their investment in an elite education is a necessity. They compete in an international market, with their products as well as for competence. This situation prevails, the firms'

representatives claim, for other large Swedish companies as well. They, too, must in the future take a much bigger responsibility for the recruitment and training of their personnel.

After examining the evidence from the firms' point of view, the question of a possible struggle between them (as a group) and the school authorities, becomes a little bit more complex. The firm school is actually proposing a change in the overall educational policy and it has demonstrated that a partial change is possible within the existing institutional framework. A similar tendency is noticeable in the apprenticeship programme. Even the firms participating in the co-operation model have voiced a certain impatience with, e. g., the slow implementation of the new programme. Seen in a little longer time perspective, a decade or so, it's quite clear that firms have increased their influence over vocational education to a considerable extent. Programmes have been changed, details in course plans have been altered, and in a few cases even eligibility rules have been modified. Still, the school authorities have not admitted any significant retreats. It may well be the case that many of the changes have been brought about simply as a result of increasing participation of behalf of the firms. Potentially, however, a veritable battle for the power over vocational education could wait ahead, namely if the firms' school concept attracts numerous followers.

A structural economic perspective of the development of the new organisational models

The development of the models for vocational education and training by the middle of the 1990´s had the decentralisation of upper secondary school in 1991 as a prerequisite. It is striking, however, that new models have developed mainly in the programmes aiming at the manufacturing industry. This makes it plausible that forces outside the education system are influencing these programmes more than other parts of the vocational education system. It seems reasonable to look at manufacturing industry for possible explanations of this characteristic, in particular how the demand for competence in the labour force has changed. Two tendencies could be part of an explanation of why vocational programmes for the manufacturing industry have changed so markedly.

The first is the long term tendency to demand increasing amounts of formal education among the newly employed. This is not a tendency specific to manufacturing industry, which implies that it is, to a large extent, determined by supply: The educational level for all young people has increased since the early 1950's. At the same time there has been a strong interest, from employers and the trade unions alike, to recruit people with considerable vocational qualifications. Since the educational system has expanded in other areas it has become natural to demand an upper secondary education even for the access to comparatively unqualified positions. These tendencies are evident since at least the 1970's. With this general development is became natural that changing competence demands where expressed in terms of changes in upper secondary education. This forms a background to the second tendency; demand for qualified labour has been particularly important during certain, structurally delimited periods.

In an economic-historical generalisation of the Swedish development since the middle of the 19th century, such periods have been identified. Periods characterised by rapid and thorough transformation of the economy have dominated the development with an interval of approximately 40 years. There has been access to and room for investments in means of production for new goods by new methods. The transformation has started at the home market but has, in a later stage, become important in the export sector, too (Schön 1996). The introduction of new products and new methods has also put new demands on the competence of the labour force. It is difficult to clarify empirically in detail what the changes in demand for different sorts of competence have been, but changes in relative wages give a certain view into a complicated process. It has been demonstrated that, in the manufacturing industry, women's relative wages have been constant or even somewhat decreasing during periods of transformation, in contrast to a secular increase during the 20th century as a whole. This has been interpreted as tendencies for increasing competence demands during periods of transformation (Svensson 1995). Changes in relative wages among technicians and engineers clearly indicate that the demand for young, well-educated labour increases more during periods of transformation (Pettersson 1997). The introduction of news implies a certain

experimentation in the firms, which in turn indicates that it has been difficult to ascertain precisely what the ”new” competence should comprise. As a consequence, demand has been directed towards high and general knowledge during periods of transformation.

The observed periods of transformation have lasted 20-25 years and have been composed of two phases, separated by a short crisis or recession. Once the news have become well known and dispersed, the economy has entered into a period of rationalisation, characterised by sharpening competition. This has implied that the possibilities of the firms to pay relatively high wages to well educated personnel has diminished. At the same time, the technological development has become more familiar and to some extent predictable. The competence demands have also changed. It has become possible to handle machinery and other equipment with less competent personnel. It has also become possible to specify these demands more clearly, which has led to demands for more or less tailor-made educational programmes (Nilsson 1993).

In a discussion where the new organisational models of the 1990’s are put into a structural economic frame of reference, it is crucial to characterise this period. In such a framework, the 1980’s constituted the beginning of a new period of transformation, and the crisis of the early 1990’s marked the transition to the second phase. Now (1997) we are in the very beginning of this second phase. During the last 10-15 years the competence demands have been directed towards general knowledge, which has influenced vocational education. The extension of the vocational programmes at the upper secondary level to three years was mainly caused by an endeavour to provide the students with a better theoretical foundation. In the first phase of transformation, i. e. during the 1980’s, uncertainty of future demands was large. This led to rather diffuse demands for change in the upper secondary school system, with an extensive experimental activity in vocational education as an effect. About 1990 the re-orientation was to a large extent completed. The Swedish Parliament established the three-year vocational programmes, which only partially were connected with the previous lines of study. This could be interpreted as a sign of diminishing uncertainty.

The changes, however, did not comply entirely with the demands from manufacturing industry. Had the uncertainty continued to be as large as during the 1980’s, it is very doubtful that firms had been prepared to invest in vocational education. But when the transformation entered its second phase, predictability increased somewhat. From a structural economic point of view it is not surprising that several different models emerge in such a situation. Firms are beginning to be able to state their demands for competence more precisely, but it takes a lot time to influence the entire school system. The decentralisation implied that several firms had an opportunity the find other forms to satisfy their educational demands.

Discussion

The relative failure of the municipalities to provide firms with desired competence is an important background in explaining why local models of vocational education are emerging. Various organisational forms are used with markedly differing quality levels. This is a striking contrast to the previous, very uniform, system of Swedish vocational education. The interviews have *not* presented evidence of any actual ”power struggle” between firms, schools, and trade unions. There exists rather an overall pattern of adaptation to rapidly changing economic conditions. These changes imply that municipal schools find it difficult to keep up with the technological pace. Only competitive firms possess the human and fiscal capability to be at the technological frontier. If the schools want firms as partners in vocational education, they have to be open for different local forms of co-operation.

This dependency is, it seems, transferring some authority over vocational education to firms. As a hypothesis, such a transfer is more extensive in municipalities where one large firm has a strong position. This idea is supported by some observations, although not in a conclusive manner since no attempt has been made in this paper to establish the firms’ relative strength. It is suggestive, though, that Perstorp, where the firm’s school is situated, and Svedala, with the apprenticeship school, are both municipalities totally dominated by the firm that run these schools. In addition, the ”pseudo-apprenticeship” system, in

which firms have a large influence, prevails in Emmaboda and Eslöv, which are dominated by one and two firms, respectively. At the other extreme, the industrial programme where firms do not have much influence, is at work in all the four larger cities in the region, where the economic structure is more varied and where no single firm is dominant in the manufacturing industry. In addition, the industrial programme is at work in a couple of municipalities where very small firms dominate (Osby, Hässleholm, and Ängelholm).

The interpretation of the results can be carried a little further. The rapid technological and organisational changes have altered demand patterns in the labour market to the extent that modern firms require competence which the traditional industrial vocational programmes cannot provide. The actual organisational structure of the different programmes reflects, to a very large extent, local demand patterns in terms of industrial competence. To be more precise, the traditional industrial programme, and, to a somewhat lesser extent the apprenticeship system, provide their students with forms of competence that are valid only in parts of the manufacturing sector. It implies a certain up-grading of theoretical knowledge but the programmes still recruits about the same type of students as previously; overwhelmingly boys with low to medium grades from comprehensive school but in possession of certain, often considerable, practical skills. The fact that large international companies have engaged in apprenticeship or ”pseudo-apprenticeship” programmes implies that such traditional competence is still in demand and useful, even in production for the world market. However, the emphasis put on selection criteria by the firm responsible for the existing apprenticeship programme also implies that formal competence is not sufficient. Personal characteristics are of extreme importance, and the industrial programme has never been efficient in such selection processes. The totally different recruitment of students to the firm school and to the ”technical” programmes, on the other hand, signify a new tendency. Emphasis is less on practical skills and more on a theoretical understanding of the processes underlying industrial production.

The emergence of several models of vocational education is, from a strictly economic standpoint, a promising development. The degree of flexibility in the educational system increases and students have a real choice between different forms of vocational education. It also, however, raises fears of an increasingly dual vocational education system. The different recruitment patterns certainly point in that direction. On the other hand, such a duality has existed for a long time, but *between programmes* rather than within one. The bigger firms have long recruited personnel from theoretical programmes, above all from the natural science programme. These newly employed have often turned out to be excellent workers but it has been necessary initially to train them in industrial routines. Thus, although fears of a new educational segmentation are presumably exaggerated, the different recruitment patterns reflect that the segmentation of the labour market in the manufacturing industry is changing character. The previous, and in many places still existing, differentiation between blue- and white-collar workers *within the firm* seems to be replaced by a differentiation *between firms*. In firms with ”flat organisations” and ”continuous flow” all workers must be able to do administrative as well as operational work. The firm school and the ”technical” programme, and perhaps even the apprenticeship system, prepare the students very well for this type of work, but it is questionable if the traditional industrial programme does.

The discussion suggests that firms will increase their influence over vocational education. Current trends in labour market demand and in economic structural change point in that direction. To the extent that this possibility is realised, it will presumably contribute to increasing quality in vocational education, but the development also raises the question if inequality in vocational education will increase. The resource differences between programmes is likely to increase in a system of firm-based vocational education, since the possibility and propensity to supply resources differs markedly between firms. Increasing quality differences in a more diversified system are perhaps unavoidable and a necessary price to pay. There is another problematic issue, however: eligibility rules. As the experience of the apprenticeship programme shows, firms are prone to use not only grades from the comprehensive school as selection criteria to a programme. Increasing quality differences will certainly imply increasing selectivity. A not too distant future can be envisaged, where promising students with desirable personal characteristics will enjoy an education and a training environment with ample resources and of a high quality. There is a distinct risk that the less fortunate students will be directed to municipal programmes of a low quality.

The discussion ends with a prediction, based on the following observations: The apprenticeship programme has succeeded in attracting far more motivated students than the industrial programme does. The firm school and the ”technical” programmes have also managed to recruit students of another category than the traditional industrial programmes. These new models have obviously convinced talented students that a vocational education can be combined with a thorough theoretical education - and it seems, by implication, that work in manufacturing industry is a viable alternative. Although these programmes are so new that the students have not yet completed them, their general ability makes it almost certain that they will possess high qualifications. The prediction: The new models are so successful that the traditional industrial programme will disappear in a near future. It could be a pain-staking enterprise, though. The programme is active at present mainly in the larger cities, where the economic structure complicates the development towards a truly firm-based vocational education. There is no single firm big enough to handle all the firm-based activities in such a programme, and large number of small and medium-sized firms implies that co-ordination problems will arise if the firms were to take a joint responsibility. But the dissatisfaction with the programme and the existence of successful alternatives in neighbouring municipalities will probably bring about drastic changes. One alternative, which has been contemplated in a couple of the bigger cities, is to abandon the industrial programme altogether. The other alternative is to develop apprenticeship-like systems. This is not just a regionally possible solution to a problem. The recent proposal, put forward by the Minister of Schools, to combine some of the vocational programmes with a period of apprenticeship, indicates that the problems in vocational education are nation-wide and affect more programmes than just the industrial.

Notes

1 This paper presents preliminary results from the research project ”The Building-up of Competence and the Use of Knowledge - Vocational and Upper Secondary Education in the Transformation of Society”, financed by the Swedish Board of Education, grant no 15002. I am grateful to Christer Lundh and Lars Pettersson for comments and, above all, to all the interviewees who have put their time and expertise at my disposal. A previous version of the paper was presented at the ILM Conference ”Understanding the School-to-Work Transition”, Aberdeen, 16-17 June, 1997.

2 There exists - to my knowledge - no official translation of several key concepts in the Swedish vocational education system. In this paper, an approximate English term is put in quotation marks and, in addition, the Swedish term is given when the term appears for the first time in the paper.

3 A not very precise but the best available measure of the amount of apprenticeship education is provided by the number of applications for government subsidies for this education. The number decreased from about 2.500 in 1969 to about 1.000 during the 1970’s (these numbers do not include the building industry). See Statistics Sweden (SCB, 1974 and 1978).

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Still the Stepchild of Swedish Educational Politics? Vocational Education and Training in Sweden in the 1990s

Introduction

On the whole, changes in Swedish vocational education and training (VET) in the twentieth century have taken place quietly, in the shadow of the reforms of the rest of the educational system. The latter have often been accompanied by conflicts and heated debates whereas decisions about VET have been taken without much antagonism, but also without much passion.[1] This is rather paradoxical, considering the fact that vocational training and education are closely linked to the development of society and the economy, a development characterized by contradictions and conflicting demands. Furthermore, a very large proportion of young people in Sweden has traditionally undergone some kind of vocational training. In other words VET has hardly been a marginal sector of the educational system. Today it may seem as if the situation has changed. The latest reform of upper-secondary education, presented and discussed below, has been the subject of public debate and criticism in recent years.[2] Doubts have been raised particularly concerning the capacities of students in the vocational programmes to successfully complete the academic courses in Swedish, English, and Mathematics, common to all students in upper-secondary school. VET has also been subject to political attention and debate to a much larger extent than previously. Perhaps VET is not the forgotten Cinderella of the Swedish education system any more. If so, one may ask why vocational training and education has moved into the foreground today, and to whom it is important?

In this paper I discuss recent reforms and developments in Swedish upper-secondary education (*gymnasieskolan*), highlighting the technical vocational programmes. What is happening to VET in the nineties and why? I want to raise questions concerning important driving forces behind the changes that are taking place**.** These changes can be examined in terms both of overriding changes and tendencies in Sweden in the last decades and of the present ideologies and strategies of some of the actors involved in VET. Among them are the State apparatus, including the largest political parties and their youth organizations, and the big organizations of labour and capital. Although it can be argued that the central political and labour market organizations have lost ground because of an ongoing decentralization, I contend that they still both influence and mirror trends and conflicts in the struggles and debates concerning youth and vocational education.

Swedish Vocational Education in a rear view mirror

Historically, vocational training in Sweden was primarily undertaken at the individual workplace or in the home, sometimes complemented by short part-time and evening courses. There were few attempts at state governance of VET. The 1918 reform of junior technical schools meant that state subsidies were granted to local apprentice schools offering complementary theoretical education to young people employed in industry, manufacture, trade, and domestic work. However, contrary to the situation in many other European countries, neither apprenticeship legislation nor compulsory school-attendance for 14—18-year olds was introduced.

By the thirties, vocational training was heavily criticized for being ill suited to and insufficient for the needs of industry.[3] Furthermore, it was not responsive to the needs of young people without jobs. For these reasons, central workshop schools (i.e., schools offering full-time practical and theoretical vocational training) were introduced in the aftermath of the thirties' economic recession.[4] Essentially, however, the view that VET was *in a rather miserable state,*[5] voiced especially by representatives of industry and organized labour, remained and strengthened in the forties and fifties. In the 1940s, for example, a committee

representing the large organizations of capital and labour criticized apprentice education (discussed further below) for its haphazard nature, lack of method and in many cases its complete lack of theoretical instruction. The purposefulness and efficiency of vocational training were also questioned. Contacts with the labour market were described as weak or non-existent, and teaching as not having adapted to the changes of industry and technology.[6] In the fifties only a minor proportion of the workers had some kind of vocational training. VET was scarce, and young people were reluctant to spend time on education at a time of industrial expansion and shortages in the work force _ a situation that pertained in the late forties, the fifties, and sixties.

However, from the late 1950s the number of students in VET, especially in municipal vocational schools, rapidly expanded as a result of substantially increased state subsidies, and also because of a growing emphasis on vocational training in state labour market policies. On the other hand, the number of apprentices had declined considerably since the forties (Table 1). In other words, the tendency towards an increasingly school-based VET, which later came to be regarded as a hallmark of Swedish vocational training, was clearly seen at this time.[7]

Table 1. Number of students in subsidized full-time vocational training 1945-1965

	Year				
	1945	1950	1955	1960	1965
Vocational schools					
Central workshop schools	2.000	2.700	3.200	6.100	7.900
Municipal vocational schools	5.700	7.500	12.700	34.600	57.200
Private vocational schools	2.700	2.700	3.500	4.500	5.400
Enterprise vocational schools	—*	—*	—*	3.800	4.100
Total	10.400	12.900	19.700	49.000	74.600
Apprenticeship training					
in trade and industry	10.000	—*	—*	—*	2.000

* Figures not available.

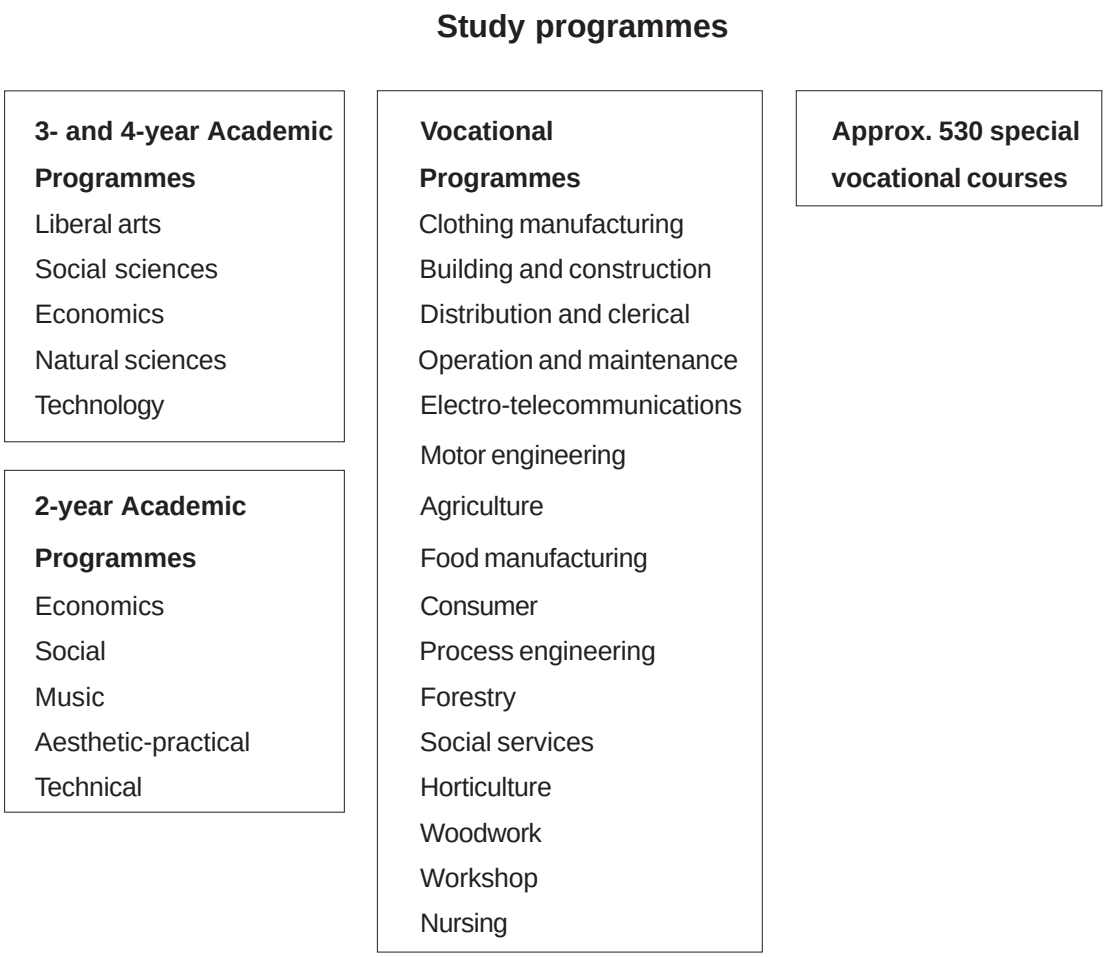
Source: Statistics Sweden, Memorandum 1984:2. Pupils in schools of vocational education in Sweden 1844—1970 and Memorandum 1974:3. Swedish Educational Statistics 1960—1973.

The 9-year comprehensive school was introduced in 1962, following a ten-year trial period. According to the original plans, the majority (60—70%) of the children was supposed to go into one of the preparatory vocational lines in the 9th grade. However, the academic tracks soon proved to be far more popular than the vocational alternatives. In the early sixties nearly 80% of the children went into tracks that prepared them for further theoretical studies. The VET reform of the late 1960s should not only be understood in the light of a growing need for a flexible labour force, but also against the background of the growing difficulties of vocational schools and industry in attracting young workers.

The 1969 reform of upper-secondary education took another large step towards a mainly school-based vocational education. In 1970, in principle, all vocational education at secondary level became part of the comprehensive upper-secondary educational schools known as *gymnasieskolan*, (Figure 1). One important aim of the reform was to place theoretical and practical secondary education on a more equal footing and to facilitate their integration. VET was organized in broad blocks, each allowing for gradual specialization. The curricula of the two-year vocational programmes gave extra time to the general subjects (approximately 1/3 of the time during the first year), and Swedish, working-life orientation, and physical training became compulsory subjects. From the beginning, a majority of all 16-year-olds went into some kind of upper-secondary programme or course: 88% in 1971 and 91% in 1979. At the beginning of the

seventies 25% of young people aged 16 went into a 2-year vocational programme. By the end of the seventies the corresponding figure was 40%.[8] Practically all basic vocational education and training took place within the upper-secondary school.[9] It should be noted, that the 1969/70 Upper-secondary Education Act was the first *structural* reform of vocational training and education in Sweden since 1918.

Figure 1. Upper-secondary school in Sweden 1970-1991



A Part of the Swedish Model?

In the 1930s, the big labour market organisations were facing the threat of apprenticeship legislation, an intervention by the state in what they regarded as matters best handled by themselves in the form of mutual agreements. As a direct result of this threat, the Swedish Employers Confederation (*Svenska Arbetsgivareföreningen,* SAF) and the Swedish Confederation of Trade Unions (*Landsorganizationen,* LO) reached an agreement to jointly promote the expansion and modernization of vocational training. They established the Joint Industrial Training Council (*Arbetsmarknadens Yrkesråd,* JITC) at the end of the war (1944), with important tasks in this respect. The proposed apprenticeship legislation was not implemented (and has not been to this day), and it seemed that state interference had been avoided. However, VET was, paradoxically, to become an area where the involvement of the SAF and the LO, acting as agents of the state, was obvious and substantial. In the fifties and sixties, the two organizations not only responded to reform proposals from the State, but also took an active part in shaping educational policy in the field of VET by participating in the important public committees that prepared the major vocational training reforms. They were also responsible for implementing these reforms as members of the National Board of Education and the Royal Board of Vocational Education. The JITC served as an important agency of information, further education, and discussion for representatives of industry, trade

unions, and schools.[10]

In some respects the two organizations had similar motives for participating in educational policy-making, in others they differed markedly. Both the SAF and the LO attached great importance to VET and, especially from the 1960s on, to education in general as a means of economic growth and competitiveness. However, for the Employers Confederation the economic arguments clearly dominated, whereas other factors were equally, or more important to the LO. In the trade union movement it was believed that education could contribute simultaneously to material prosperity and social equality and fairness. Equal access to, and equal treatment within, the education system would mean that one of the cornerstones of the old class-society would be destroyed.

In contrast with organized labour in many other countries, the Swedish labour movement has actively supported restructuring and modernization of industry as a means of increasing the resources of welfare and keeping unemployment down.

> *"The Swedish labour movement has had the unusual capacity to create a synthesis of equality and profit strivings and of welfare and efficiency, which has promoted all parties. Every phase of the development of the welfare state has been characterized as much by its attitude to efficiency as by the problem of power (Esping Anderson 1988, p. 77).*[11]

One consequence of accepting and promoting industrial rationalization has been the acceptance by both employers and trade unions of a certain amount of mobility in the labour market. VET has been regarded as an important means of making the necessary worker mobility possible (i.e., as a tool of the active labour market policy that was part and parcel of the Swedish model). Although the 1970s and 1980s was a time of marked tension and polarization in Swedish society, and not least between the SAF and the LO, consensus and co-operation in matters of VET paradoxically remained unchanged. In the 1980s the social partners brought pressure to bear for reform of VET, as they feared that a necessary modernization of vocational education would otherwise be neglected. They actively participated in the expert committee planning the reform and jointly supported the resulting reform proposal. This co-operation may be contrasted with the field of primary and theoretical education, where the differences between the SAF's and LO's ideologies of education have been clear and obvious, especially from the 1970s onwards. Although the Swedish model generally seemed to have eroded, it survived when it came to VET.[12]

The VET reform of the nineties

In spite of the fact that the capacity of the 1970 upper-secondary school to meet the demands of society was questioned almost immediately, it would take another twenty years until the next reform of upper-secondary education and VET was decided upon and realised. Above all, the trade unions and student organizations argued for a change whereas the political parties, including the Social Democrats, were less active.[13] Nevertheless, the Social Democrat minister of education established a new public gymnasium committee in 1976. In the committee's directives, the upper-secondary school was described as being too inflexible and isolated from the rest of society. Even if formally integrated, it was argued, it continued to divide students along class and gender lines. The committee was soon given revised directives when the first non-socialist government since the twenties came into office the same year and the goal of increased integration was substantially toned down. The work of the 1976 gymnasium committee resulted in an extended trial period, which, however, did not include VET. This fact led the LO and the SAF, separately and jointly, to demand a revision of vocational education. Their request was granted: a review group of upper-secondary VET, the so-called ÖGY committee (Översynsgruppen för gymnasial yrkesutbildning), was appointed in 1984, and finished its work in 1986. Two years later the Social Democratic government finally decided to try the ÖGY-proposals of a modernized and prolonged vocational education at upper-secondary level, but only on a small scale. The delay and limitations of the reform, caused by economic conditions, were met with anger and disappointment by the big labour market organizations:[14]

> *VET is on the point of becoming the Achilles heel of Sweden. Vocational education*

has receded both in the 70s and 80s, and if we do not immediately realize the so-called ÖGY proposal, we are also going to lose the 90s. [15]

The latest reform of upper-secondary education, in part based on the proposals of ÖGY, was finally decided in 1991, and was to be fully implemented in 1995/96.[16] The earlier programmes and special courses were to be replaced by 16 course-based national programmes, and by special and individual programmes (Figure 2). The three-year national and specially designed programmes have a common core of general subjects: Swedish, English, civics, religious instruction, mathematics, natural science, physical education and art/music/drama. Of the national programmes, fourteen would include vocational subjects. Instruction in these was to be located at places of work for at least 15% of the scheduled time. Although the national and special programmes thus shared certain characteristics, the latter offered far more flexibility than the national programmes. Individual programmes are designed to meet the individual needs of students who are uncertain of what to study, and can be of varying length and content. Apprenticeship training can be arranged as an individual programme. The municipalities are obliged to offer all 16- to 19-year-olds education in one of the national programmes, or in an individual programme. The recent reform keeps VET as a part of upper-secondary education, and the differences between academic and vocational programmes have been reduced by the introduction of common core subjects, but considerable differences certainly still exist. VET contains more hours of general subjects than was generally the case before, but also, on the average, more hours of instruction at places of work outside of the school than in the 1970 Curriculum. The responsibilities and influence of the employment sector over VET increased once again.

Figure 2. Programmes in Swedish upper-secondary schools today

NATIONAL COURSE PROGRAMMES

Fourteen Vocational Programmes	**Two Academic Programmes**
Childcare and leisure	Natural science
Construction	Social science
Electricity	
Energy	
Aesthetic	
Transport technology	
Trade and administration	
Handicrafts	
Hotel and restaurant trades	
Industry	
Foodstuffs	
Media	
Land and animal husbandry	
Health-care	

SPECIALLY DESIGNED PROGRAMMES

INDIVIDUAL PROGRAMMES

From the late seventies the formerly highly centralized and uniform Swedish school system began a long-lasting process of decentralization, supported both by socialist and non-socialist governments.[17] One important decision was taken by the Parliament in 1990, replacing a strict rule- and economic-governance

of education with a goal- and result-oriented governing system. The municipalities were given lump sums of money to be allocated and used rather freely within the frameworks defined by the law and the national curriculum:

> *The municipalities are to decide how the school is to be organized and administered and how resources are distributed and used (Govt. Bill 1990/91:18, p.2).*

The 1991 reform of upper-secondary education also meant that the decisions over which programmes to offer were left to the municipalities, constituting another step in the decentralization process. One consequence, which has been noted and discussed in recent years, is a reluctance among the municipalities to arrange the most expensive programmes. Generally, the increased local responsibility for upper-secondary schools and VET tends to increase differences in the content and quality of primary and secondary education, including the vocational programmes, between the municipalities.

When the Social Democrats were defeated in the 1991 general elections, and the new four-party coalition government came into office, the leading Conservative Party was successful in realizing several of its main objectives in the field of education. Possibilities for establishing independent schools with generous state subsidies were opened up in 1992,[18] and one year later, another bill, aimed at increasing the freedom of choice within the school system, was accepted by the Parliament. In 1993 the Minister of Education, Mrs. Ask, proposed a new bill, which would allow VET to be organized on an entrepreneurial basis, with the same state financial support as municipal education.[19] A number of industrial gymnasiums have been established since then, attracting significantly more young people than their municipal counterparts.

A story of success or failure?

Although the 1991 reform of the upper-secondary school system has been subjected to some evaluation, it is probably too early to draw any definite conclusions regarding its success or failure.[20] Still it may be of some interest to note some of the trends observable at present.

The number of students in upper-secondary education is considerably larger than before, because of the prolongation of the vocational programmes by one year, and because a higher percentage than ever of young people (98%) have selected such education. In comparison with the eighties, three areas of education have receded markedly: construction, industry, and health care programmes.[21] Another area, aesthetics, has expanded dramatically as it is very popular among the students and the municipalities are now free to offer it if they so choose. The number of students in the special programmes has increased recently, and is now greater than in all the technically oriented programmes, including independent industry schools and special programmes with elements from the natural sciences and industry.[22] Several big industries have established upper-secondary schools - ABB, Volvo, SAAB-Scania and Perstorp AB - which have turned out to be far more attractive to young people than, for example, the national industry programme, which has had a constantly declining number of applicants from the late 1980s up until the present. [23]

Recently, two public committees - the Commission of Unemployment and the Youth Policy Commission - and two consecutive party congresses of the Social Democratic party have proposed a re-introduction of apprenticeship training, mainly as a way of facilitating school-to-work transition of young people at a time of very high youth unemployment.[24] As I will discuss later in this paper, such ideas have been far from uncontroversial. Here it is enough to note that the total number of apprentices in upper-secondary education in Sweden was only 25 in 1995. Very few of these completed a three-year education (in 1995 only three persons in the whole country had done so).[25]

The reform of upper-secondary school also meant that a new course- or goal-related grading system was introduced, which included the possibility of failing a student. In some programmes, especially the industry, construction, and transport technology programmes, very high percentages of students failed in the core subjects of Swedish, English, and Mathematics. For example, in 1996, 36% of the students in the Industry programme failed in Mathematics, 21% in English, and 13% in Swedish.[26]

VET gets controversial

In the nineties, unlike earlier periods, matters of vocational education and training have tended to become controversial and have been introduced into the political arena. It is interesting to consider why this change has taken place, and which actors and issues are involved. I want to stress that my discussion will focus on actors at the central level. However, it will become increasingly important to study emerging new, local actors.[27]

To begin with, it is important to note that the descriptions of ongoing changes in work and the labour-market and of the need to qualify young people for the present and future situation, often look very much alike, regardless of which central actors we choose to observe. The programmes of Social Democrats and Conservatives, and of the big labour market organizations - both trade unions and employers - thus talk about the need to meet rapid changes at places of work, in society, and in the economy, by means of a flexible and well-educated workforce. At this level of argument, consensus is almost overwhelming. But when we come to the next step of analysis (i.e., what kind of competence is needed, by whom and how it is to be achieved) the ideologies and suggestions differ considerably.

To integrate or keep apart?

Whether children and young people should be divided on different tracks and programmes or not, and if so, *to what extent* and *when*, have traditionally been the major controversial issues in Swedish educational politics. While the labour movement, including the trade union movement, has fought for and defended a late differentiation of children and an integration of vocational and academic instruction as important means in a socialist development, the political right has argued that a clear and early differentiation is the most productive and realistic alternative. [28] The same dividing lines can be seen in the debate over upper-secondary education and VET in the 1970s, 80s and 90s. In the seventies both the largest wage-earner organizations, the Swedish Confederation of Professional Employees (Tjänstemännens Centralorganization, TCO) and the LO, strongly advocated a less divided and specialized upper-secondary education. The LO's reply to the reform proposal summarizes its general standpoint well:

> *According to the LO, the goals must be to give all young people an equally good education and an education that contributes to a change and development in society, and that in the long run eliminates unfairness and class-differences. Vocational programs should therefore be provided with such resources that enable such goals to be realized.* [29]

In the directives of the Social Democratic minister of education to the 1976 gymnasium committee, one of the goals was to reduce the separation between vocational and academic study, a separation it was argued, that functioned as a class-divider in society.

On similar grounds, the Social Democrats and the LO have defended the education reform of the nineties. However, while the arguments for social change and justice prevailed in the seventies, other arguments have been added to these in the eighties and nineties: education can serve as an insurance against unemployment and contributes to a necessary economic growth and prosperity.[30]

In contrast, the Conservatives (*Moderaterna)* have criticised attempts at a far-reaching integration between different programmes and tracks within the *gymnasieskola*. When the Conservative school minister of the newly formed non-socialist government provided the 1976 upper-secondary school committee with additional directives, the most important change meant that in future upper-secondary schools should include *mainly* academic and *mainly* vocational programmes. In 1991 both the Conservative and the Liberal parties voted against the reform proposal of a new upper-secondary school organization and curriculum. Among the reasons given was that the divisions between academic and vocational studies were said to be too blurred, and the quality of education was threatened. In the debate in Parliament over the reform proposal, Conservative MP Ann-Cathrine Haglund heatedly characterized the reform as an *attack against the upper-secondary school, … a staggering blow against Swedish educational quality* and *an exceptional reduction of the academic programmes*.[31] Furthermore, the Conservatives were

negative towards the idea of a consequent prolongation of the vocational programmes, both with respect to the qualification needs of different occupations, and with reference to young people who were tired of school. In the debate cited above, Mrs. Haglund added, *A prolonging of the vocational programmes with a third year would be paid for by a reduction in the academic programmes.*[32] In the 1993 action programme of the Conservative Party, the phrasing was more modest, but the general ideas were the same as Mrs. Haglund's:

> ***The** well-intentioned ambition to keep many future roads open for a long time must not be given priority over the demands and quality of the academic upper-secondary **programmes**.*[33]

The SAF, finally, has also been sceptical about a far-reaching integration within upper-secondary schools. For example the employer organization rejected the reform proposal from the 1976 committee, not least on the grounds that both theoretical studies and studies preparing for an occupation would suffer. On the other hand, the SAF eagerly promoted the ÖGY proposal, including the prolonged vocational education and a larger share of the core subjects in these programmes - a fact heavily underscored by the Social Democratic school minister Göran Persson in the debate in Parliament:

> *The crusade against this proposition, headed by the Conservatives, is not based in reality. In my opinion, this is best underscored by the fact that the Employers Confederation, the parties of the labour market, the Swedish Association of Local Authorities, student organizations, and the Home and School Association stand behind the main principles presented in the proposal.* [34]

Generally, the SAF has tended to be considerably more pragmatic in matters of VET than the Conservative Party. As is illustrated in the example of apprenticeship education below, it would be a mistake to equate the educational strategies and ideologies of the two.

Apprenticeship training and education

Another controversial matter closely connected to the one discussed earlier, concerns the supposed blessings or dangers of apprenticeship. In the late seventies, at a time when youth unemployment was rising and schools, including the ones at upper-secondary level, were increasingly criticized for lacking contact with working life and society, apprenticeship training was re-introduced as a way of dealing with those teenagers who did not cont*i*nue with further studies. The non-socialist government initiated discussions with the labour market organizations, and all parties agreed that site-based vocational training should be expanded. SAF however, was clearly more supportive than the LO, which wanted to make sure that earlier negative experiences of work-based training would not be repeated. In 1980 the Parliament raised the state subsidies for site-based VET, including trials with apprenticeship training as one form of upper-secondary education, and from 1984 this latter form of VET was made permanent. Whereas the Conservatives argued that apprenticeship training should become the single most important form of upper-secondary education, the SAF gradually became somewhat less enthusiastic. Having found that less than half of the apprenticeship places were filled, SAF stressed that apprenticeship could only be a complement, albeit a valuable one:

> *We can neither keep VET almost completely in schools, nor can we take it back to the companies - few companies are able to provide a training broad enough to correspond to modern occupational demands or teach vocational theory.* [35]

The Conservative Party, however, did not abandon the idea of apprenticeship as an important part of VET at upper-secondary level, and made an effort to implement this thinking during a second period of non-socialist government in 1991—94. In 1992 the school minister, Mrs. Ask, proposed a new apprenticeship education, combining work-place training within the framework of employment and studies at school of four core subjects (English, Swedish, Mathematics, and Civics). This, she argued, would be an alternative for students who did not want to spend more time in school studying theoretical subjects. Also students living a long distance away from school would find this possibility attractive, and it would serve the needs

of highly specialized occupations and small enterprises.[36]

The LO and its unions have been restrictive or hostile towards apprenticeship training other than as a rather marginal complement to the rest of upper-secondary education. The policy of the Social Democratic Party, on the other hand, appears to be more ambivalent. In 1992 the Social Democrats rejected the proposal of a new form of apprenticeship training. In 1996 the party executive proposed new political guidelines, *Sweden facing the 21st century*. Under the heading of labour market policy, the executive advocated an expansion of apprenticeship and other forms of site-based training.

> *We want young people who do not feel comfortable in the traditional forms of education to have more possibilities of work experience and work. This presupposes that continuing education becomes a reality for everyone.*[37]

Union representatives at a LO meeting met this proposal with indignation, and the Swedish Union of Metalworkers firmly rejected it in a letter to their representatives at the party congress the same year.

> *How can the labour market committee suggest forms of education that can be regarded as storage places for students who are perceived as problematic by the school? It seems to be the simplest solution to tie them up in bundles at a place far from the rest of upper-secondary education.*[38]

However, the congress accepted the proposal of the party executive with the proviso that:

> *It is important that apprenticeship education is constructed in a way that gives everyone access to higher studies which may be included in recurrent education for all.* [39]

Is a three-year vocational education necessary and possible for all to complete?

When VET at upper-secondary level was evaluated and changed in the eighties, both the SAF and the LO regarded the prolonging of the course by a third year as central, in order to meet present and future qualification demands, and to make the individual less vulnerable in the labour market. However, the idea of a three-year VET has been strongly criticized both in public debate and in the political arena by the Conservative and the Liberal parties. It has been said, that the academic courses are too ambitious and difficult for many "practically oriented" students who are tired of attending school. Also, it is argued, such a long vocational education is unnecessary for many occupations. Such arguments have been fuelled by reports showing that large numbers of students in certain vocational programmes fail in the core subjects. The counter-argument, particularly from the LO and the Social Democrats, has been that it is necessary to provide everyone with knowledge that makes it possible to handle skilled tasks and to influence what is going on in work-life and society.

> *Otherwise we risk a development in working-life where a group of people get increasingly simple, mechanical, and strenuous work-tasks, and others - those with the knowledge and who have obtained an education - get more and more stimulating, and challenging tasks, which further promote their development.* [40]

It is the responsibility of schools to help each student to complete his or her education. As far as possible students should be accepted into programmes and courses that they are motivated to attend and given power to influence their studies. It is argued that subject integration, adjusted pedagogical methods, and further education for teachers and school-leaders are also important means for achieving these goals. [41]

Freedom of choice and market ideology

Schools and educational policy have played important roles in the successful right-wing and employer offensive of the 1970s and 1980s in Sweden, and during the latest period of non-socialist government (1991—1994) the Conservative party tried to realize several of its main objectives in the field of education. The ideology of the market economy and free enterprise has permeated much of these efforts. According to both the Conservative Party and the SAF the quality of education is best served when individuals are

free to choose and schools are forced to enter into competition with each other and hence, they argue the State school monopoly must be broken. The Parliamentary decisions in 1991 and 1992 (see above) meant that the conditions for establishing independent schools became much more favourable than previously, and that the competition between schools increased within the public education system - at least on paper. The opening of the possibility of providing vocational subjects on an entrepreneurial basis was another example of this favourable climate.

> *It is my conviction that stimulating competition between different schools with different profiles and different forms of ownership also in the long run may contribute to increase quality and productivity within the school sector (Minister of Education Beatrice Ask, Govt. Bill 1992/93:230, pp. 26—27).*

In the Conservative Party manifesto Land for the Hopeful. Manifesto for a New Century (1997), the keywords of the school chapter are characteristically the following: Competition enforces quality, Break the municipal hegemony, Deregulate teacher education and A real knowledge society.

The opposition to this rightist ideology has been expressed most forcefully by the LO. For example, in its educational programme *Educational Politics for Justice* (1994), the LO declares:

> *Guard the upper-secondary school reform! …It is implemented at a time when the municipalities perceive economic problems and look for alternative solutions. Privatization and contracts are fashion words in the debate. … The quality of upper-secondary education is important to the future development of Sweden. Therefore it is important that upper-secondary school reform is not relaxed, becoming frag mented and adjusted to the needs of companies, as in the case of the apprenticeship system. … The market alternative is a political alternative which increases segre gation in society, is systematically unfair to worker families, and it is economic, not pedagogic arguments which are the most important in the market alternatives*[42]

The voices of young people

It is no matter of chance that I have not cited any youth organizations in the above discussion. Surprisingly few voices of young people are heard in the debate and struggles over vocational training and education. If we turn to the political youth organizations very little is said about this aspect of education, although approximately half of the students in upper-secondary education go into the vocational programmes. In *Frihet* (Freedom), the periodical for members of the Swedish Social Democratic Youth Association (Sveriges Socialdemokratiska Ungdomsförbund, SSU), issues such as youth unemployment, school democracy, vouchers, and school fees were much more prominent in the period 1990—1995. Hardly any articles presented and analysed the upper-secondary education reform of the nineties or discussed VET.[43] The same is true for the sections about education in the latest programme of the SSU. In the nineties the periodical for members of Liberal Youth (Liberal Ungdom) contained very little about education and youth unemployment in general, and nothing at all about VET.[44] However, the political youth organization with the most extensive coverage of education matters, the Conservative Youth Association (Moderata Ungdomsförbundet, MUF), was critical of the reform of upper-secondary schools in a couple of articles. They commented that freedom of choice was reduced not increased, as everyone was forced to follow a three-year education programme in the new *gymnasieskola* when the multiplicity of the old upper-secondary schools were replaced by 16 programmes. If the 9-year compulsory school had provided the students with good basic knowledge in Swedish, English and Mathematics, it would not be necessary to make such studies compulsory at upper-secondary level, MUF argued. The conservative organization of students at primary and secondary levels, Moderat skolungdom (MSU), went one step further and demanded an abolition of the upper-secondary school reform on such grounds.[45]

To some extent young people are heard when upper-secondary school is evaluated.[46] Sometimes their views may have an influence, but primarily, I would argue**,** when they give support to some of the political demands. For instance Conservative MP Mrs. Haglund referred to critical views from upper-secondary

students in order to legitimate her and her party's negative opinion of the reform proposal from the Social Democrat government. On the whole, this kind of influence is marginal. Instead students may have their largest impact when they vote with their feet, that is, when they abandon certain programmes in favour of others. In another context I have shown how the recruitment problems of Swedish industry have been important in shaping the educational policies of particularly the employers organizations, but also the trade unions.[47]

Factors behind the developments of the 90s - some final remarks

At least to some extent VET has moved towards the centre of Swedish educational politics in the nineties. It is publicly debated much more frequently than before, and it is subject to political struggles in a way that was hardly the case earlier in this century. How then can this shift be understood? The structural changes in the Swedish economy and the labour market in the last decades are the first factor to be considered. A long-term restructuring and rationalization of Swedish industry has resulted in a reduction of the number of industrial workers, which was more than compensated for in the sixties and seventies, as the State sector expanded. From the eighties on, cuts in the public sector put an end to the expansion of the number of jobs, and young people had increasing difficulties in entering the labour market. In the 1990s, in a situation of exceptionally high levels of unemployment, the proportion of young workers in the Swedish labour force was lower than ever. In the years 1994—95 on average, 7 percent of young people aged 20 to 24 were unemployed, and almost as many went into different labour market policy programmes (e.g. work-place introduction, youth practice, and youth projects). Also, the number of long-time unemployed young people has risen markedly in the nineties.[48] The youth unemployment rates, sky-high for Swedish conditions, are seen as alarming by politicians, trade unionists, and employers, and of course as a very big problem by parents and the young people themselves.[49] From the late 1970s, efforts to lower rising unemployment among young people were high on the political agenda. Not only were a large number of school-to-work-transition programmes, normally combinations of education, workplace introduction, and practice, introduced[50,] but also the reform of upper-secondary schools at the beginning of the nineties must be seen against this background. Most actors involved regarded providing young people with relevant education as something of a key issue, as young men and women with low levels of education were clearly over-represented among the unemployed. I would argue that the growing difficulties for young people in finding employment has been one of the decisive factors behind the changes in upper-secondary school and VET since the late seventies.

Swedish work-life is subject to rapid change and, in order to cope with this, the employed must be flexible and well educated. Even if this is not the whole truth it is a view so commonly held by actors in the economic and political arenas that it certainly has affected educational policies in the nineties. Furthermore it has been shown that the Swedish workforce is not better educated than its European neighbours, in fact, on the contrary. In particular, the percentage of young people entering higher education is lower than in many other Western countries. It is commonly argued that the education level in Sweden must rise if we are to stand a chance in international competition. The strengthening of the vocational programmes of upper-secondary schools, permitting the students to go on to higher studies, is often motivated on such grounds.

The political scene has undergone important changes from the seventies on. The Social Democrats have gradually been losing ground, and at the same time the party's traditionally close bonds with the trade union movement have been strained. The Conservative Party has got support from 20—30% of the electorate, sometimes even more, and the SAF overtly and successfully, participates in politics and the production of ideology. Initiatives in educational politics, to a large extent, come from the right, and anyway it is not possible to neglect neo-liberal and neo-conservative views on education. It is however important to note, that the SAF and the Conservative party are far from united on matters of VET. In spite of the SAF's very active support of a reform of upper-secondary education, meaning a prolonging of VET and more hours of academic studies, the Conservatives have persisted in their critique of the reform and advocated a renaissance of apprenticeship training instead. We can recognize a classical motive behind this policy. The Conservative Party has always reacted violently when they believe that the standards of academic and higher studies are

endangered, and that is exactly what they feared as VET increased in length and became more closely tied to the academic programmes than previously. A more general resistance to integration is nothing new. Different students, programmes, and contents should be kept apart, the Conservatives have traditionally argued.[51]

At the same time, in an international comparison, the political and trade union organizations of the Swedish labour movement still appear to be exceptionally strong and influential. It was, thus, never possible to disarm the unions in Sweden as was the case in Great Britain. However the Social Democrats, in particular, have had substantial problems in formulating a socialist education policy for the eighties and nineties. Accordingly, the party has been criticized for its lack of activity and clarity in this area, not least by the LO.

It is hard to find any evidence that organized actions from young people have affected the change and modernization of VET. Their tendency to choose academic programmes and to avoid certain vocational programmes, especially mechanical engineering and later the industry programme, has, however, been important.

Finally the decentralization of the governance of the Swedish educational system is a condition which affects the development of VET, but in a complex and ambiguous way. It is rather obvious that local variations will increase, and that the influence of local industry over VET is growing. One may speculate that the existence of a large number of local actors will create more contradictions and conflicts than before, which may contribute to an increased political interest in vocational education. On the other hand, VET may become so splintered and local that it is hard to get an overview or a political grip on it.

Notes

1 C.f. *Lundahl*, 1990.

2 See e.g. *Svenska Dagbladet* 28/2.1996: *Reform of upper -secondary **school** is merely utopian*; *Arbetet* 14.7.1996: *The official lie about upper-secondary school*; *Dagens Nyheter* 11.9.1996: *The new bluff-gymnasium*; *GöteborgsPosten* 19.5.1996: *The new upper-secondary school promises a lot but does not keep its promises*; *Svenska Dagbladet* 11.2.1997: *The new gymnasium is a shapeless hybrid* (my translations).

3 SOU 1939:14.

4 *Nilsson*, 1981, SCB 1984.

5 Leading trade union representative Bror Johansson in *Fackföreningsrörelsen* [the Trade Union Movement], 1952:36.

6 SAF-LO 1944, pp. 55—56.

7 C.f. *Jallade*, 1989.

8 National Central Bureau of Statistics (1981): Yearbook of Educational Statistics 1980.

9 In 1977 a further vocational technical education system (*Yrkesteknisk Högskola, YTH*) was introduced at tertiary level as a part of the major reform of higher education that year. Although this may be regarded as an important step, YTH reached only a few hundred students every year.

10 Lundahl, 1997a, 1997b.

11 All citations in the paper are translated from Swedish by the author.

12 C.f. *Lundahl* 1997a, 1997b.

13 *Bergström* 1993.

14 The opinions within the Social Democratic government were divided, as to whether a prolongation of VET with a third year was gainful and necessary. Especially the Minister of Finance, Mr Kjell-Olof Feldt, was sceptical (*Lundahl*, 1997a).

15 *The SAF journal* 1989:4, p.17.

16 Govt. Bill 1990/91:85.

17 For a brief overview of the steps in this decentralization process, see Kall?s & Lundahl-Kall?s (1994),p. 141 ff.

18 Govt. Bill 1991/92:95.

19 Govt. Bill 1992/93:230.

20 *Skolverket* 1995a, 1995b, SOU 1997:1.

21 The new programmes have been compared with their equivalents before the 1991 reform.

22 SOU 1997:1.

23 Ministry of Education 1996.

24 SOU 1996:34, SOU 1997:40.

25 SOU 1997:1.

26 Ibid.

27 C.f. *Anders Nilsson´s* (1998) article, which illuminates this fact.

28 *Lundahl* 1990.

29 LO 1982, pp. 3.

30 Both kind of arguments - the economic/labour market and the social justice ones - have existed side by side in the whole postwar period, but the balance between them has alternated (c.f. *Lundahl* 1997a).

31 Report of the proceedings 1990/91:126, p. 53.

32 Ibid.

33 Moderaterna 1993, p. 62.

34 Ibid., p. 99.

35 the SAF-journal 26/1986, p. 23.

36 Govt. Bill 1991/92:157.

37 *SAP* 1996a, p.31.

38 *Svenska Metallindustriarbetareförbundet* 1996-02-29.

39 *SAP* 1996b, pp. 29-30.

40 School Minister Göran Persson in the debate over the proposed upper-secondary school reform in the Parliament. Report of the proceedings 1990/91:126.

41 See e.g. LO 1995, p.138.

42 LO 1994, p.37.

43 *Frihet* 1990-1995.

44 *Liberal Ungdom* 1990-1995.

45 See for example *Moderat Debatt* 1990:2, *Moderat elev* 1991:3.

46 E.g. *Skolverket* 1995a, 1995b.

47 *Lundahl* 1997a, 1997b.

48 *Schröder* 1996.

49 In a survey among young people from 1995, youth unemployment was ranked as the most important problem in every second answer. Every fourth young man and woman (age 15-29) regarded unemployment as a big threat against their health and life (in the whole population the corresponding proportion was 10 percent) SOU 1997:40, p. 32.

50 C.f. Schober-Brinkmann & Wadensjö 1991, Schröder 1996.

51 C.f. *Lundahl* 1990.

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Selection Principles in the Recruitment for Work on the Shop Floor

Summary

This paper deals with issues which relate to the underlying principles which seem to have a determining influence on the decisions which are made in the recruitment of new members in groups working on the shop floor in the industry.

The empirical parts rely on a number of interviews which were made as a co-operation project between institutions related to vocational education in Denmark, Norway and Sweden. Two interviews, in each of the three countries, were made with administrative staff working with internal training, supervisors, and newly employed. The occupational categories which are focused in this paper are process operators and machine operators.

The theoretical framework used in the analysis is inspired, mainly by studies from the field of social reconstructivism, but also by qualification theories.

The analysis of interviews indicates that of the principles which underlay the decisions in the selection for employment, the first criterion is to have passed the formal, branch specific Vocational Education. But, beside that, the second criteria for employment seems to be the matching between the real competencies and a more ideological and normative related qualification demand. Furthermore, if the first criterion can't be met, it is indicated in the interviews, that the selection is made among those who have a closely related branch specific Vocational Education. The alternative, to select among applicants who have a longer and more theoretically oriented education in the same field of engineering, is not considered. This formal competence seems to be a disqualifying factor for the possibility to be employed as a worker on the shop floor.

The results of the study might have implications for the view of formal education. It challenges the assumption that, in order to get a job, a longer education is always an advantage. Also there seems to be a contradiction between the assumed need for broad formal competencies in a socio-technical organisation system and the views of decision making agents in the process of the selection for employment who look for more ideologically and normatively related qualifications..

Background

In 1994 the Nordic Board of Ministers initiated a program for co-operation between the Institutions which were involved in research and development work in Vocational Education. The aim was to increase the contacts between the institutions within the five Nordic countries, and by that reason the Board supplied financial support for several common projects.

Out of this initiative emanated, among others, one project with the main idea to analyse Vocational Education from the view of the employer and to study different forms of organising internal training in working life, and their relations to public Vocational Education. In other words: How was the in-service training of different branches organised in the different countries, and how was it related to public Vocational Education?

The project was given the title: " Forms of organisation in Vocational Education". The project started in August 1995 and was finished at the end of 1996. The participants of the project represented Danmarks Erhvervspedagogiske Lereruddannelse, Högskolen i Akershus and University of Umeå.

The empirical parts of this paper rely on the data which were gathered in the project mentioned above. The issue of selection for employment and a realization of the importance of this selection gradually

developed. But since the aim of the study was not focused on those specific issues, the data which described the selection process and the underlying assumptions which could be found in the interviews were only fragmentarily treated in the project report.

Method

Among all the possible alternatives the occupational professions of shop slaughter, paper industry operator and machine operator were selected. This was partly a decision which was influenced by the personal interests of the participants, and it also brought a deeper knowledge about the areas into the project group that had otherwise been the case.

In each of the countries of Sweden, Denmark and Norway interviews were made in one company in each of the three areas mentioned above. The interviews were made during one occasion with staff working with training, a supervisor at the workplace and one newly employed.

In this paper only the interviews from companies who employed paper industry operators and machine operators are presented, while the interviews concerning shop slaughters are left aside. With one exception, the interviews were carried through in large export industries. The interviews took four to five hours each. They were openly performed with the three interviewers and the staff from the workplace sitting together.

The interviews highlighted some issues, which seem to be common in all the three countries. They concern the questions which arise and how these are solved when the selection for employment is going to be made. Before going into those issues, the theoretical framework which has influenced the analysis will be clarified.

Theoretical framework

The data analysis is inspired partly from the social reconstructivistic field and partly from theories developed under what has become labelled as qualification theories. I will first briefly consider the reconstructivistic field, the way of viewing the society and the concepts which will be used in the analysis.

Code theory

For nearly four decades, the British sociologist Basil Bernstein has continuously refined his theory which sets out to describe the mechanisms which makes it possible for society to reproduce itself. (Bernstein 1971, 1973, 1977, 1990 and 1996).

The basic stand for Bernstein is firstly, that society consists of classes which have developed due to the division of labour and second, that the society reproduces itself as such.

In Bernstein´s analysis the concepts of power and control are central; mechanisms of power and control are exercised in order to maintain the social order, including the equalities between social classes. However, he argues that in reality the concepts are interrelated to such a degree that they can only be distinguished analytically. The concepts of classification and framing are used in order to make such a distinction. But, and this is in my opinion the brilliant part, they are then brought together again under the concept of code. However, the consequence is that the three concepts will be so interrelated that in order to define one of them, the others has to be used.

Classification

If we agree that society consists of different categories of people, then the concept of classification is used to describe how strictly those categories are kept apart. The concept of classification refers to power and that this power is used in order to continuously reproduce the borders between the different categories. But in order to exercise power, there has to be some underlying principles on which this power can rely. So, as a result, classification is the strengths of the principles which maintain the boundary lines between the different categories within the society.

Framing

The concept of framing refers to control in the same way as classification refers to power. Bernstein says that power alone can not explain the reproduction of the society. There is also a factor of control which maintains the boundary lines which are created by the power. With framing is then meant the internal, or external control, by which the different categories control themselves and others.

Code

Code, finally is the concept which is developed and used to bring classification and framing together. Codes are regulative principles that are acquired and learned more or less onconsciously and which select and integrate what should be regarded as important in a specific context and how this may be expressed or realised. If someone has internalised or ”cracked” the code, he or she will behave in a way percieved as appropriate for the group he/she belongs to. From this definition also follows that there are illegitimate meanings, inappropriate forms of realisation as well as inappropriate contexts.

If, in an analysis, different code modalities can be found, then the relation can be described with help of the code concept. *Different code modalities* refer to variations in the composition and strength of the two principles and the factors that influence the framing or control of the relation between two categories. If the two categories under analysis are supposed to be kept well apart, you talk of a collection code, and if they are assumed to be integrated, you talk of an integrated code.

Yet another advantage of this theoretical framework is that the concepts can be used in a wide range of contexts. Apart from the possibility to analyse the relation between different groups, it may also be utilised in an analysis of the relation between different discourses.

An example from the world of the school

Theory and practice in education can be seen as two distinctive categories. Then let us look at how well they are kept apart in different parts of the school system. In the lower part of Swedish primary school they are quite integrated and it may be said that there is weak classification and weak framing, which result in the development of an integrated code, which prescribes that it is meaningful to integrate theory and practice. Now, if we take the Swedish lower secondary school as an example, there is quite another picture. Theory and practice are not assumed to be integrated. On the contrary there is an assumption that they should be kept well apart. The regulating code for this level of the school is then a collection code with strong classification and strong framing. However it must be mentioned that attempts are made to reduce this strong collection code.

It is possible to take the analysis one step further and strive to find the principles behind those codes. By finding the codes one may also identify the underlying principles, which maintain the degree of classification, as well as the framing factors which control the existing code.

In this paper I want to indicate some of the principles and factors which regulate the code behind the decisions about who should, and who should not be employed on the shop floor in the industry. But first I will deal with the concept of competence and qualification since they are closely connected to the relation between Vocational Education and working life, and will be used in the analysis.

Competence and qualification

In daily language the concepts of competence and qualification are often mixed and used as synonyms which might cause quite a lot of uncertainty. To avoid this situation I will clarify how they are used in this paper.

Ellstrom (1992) makes a distinction between the two concepts of competence and qualification. Competence is seen as skill or ability which is related to the individual, and qualification as the skill or ability which is necessary for a specific work to be performed. Ellstrom further distinguishes between formal competence and real competence and maintains that there is no necessary relation between those

two, but, on the contrary, there might well be large differences between an individuals formal competence and the actual competence. In the same manner it might be argued that there is not any necessary relationship between an assumed qualification demand to perform a work and the demand in reality.

Ellstrom also distinguishes between the psycho motoric-, cognitive-, affective-, personality- and social-competencies respectively.

The first aspect of qualification is task oriented qualification demands, which in its turn is divided into the psycho-motoric, cognitive and social qualifications. Second, is, what he calls, the ideological-normative qualification demand which is divided into affective qualification (attitudes, values and motivation) and personality qualification (carefulness, diligence, swiftness and reliability). Finally he mention the developmental qualification demands which relate to qualifications such as the ability to identify and perform a development work within a specific area of craftsmanship.

Criteria for employment

It seems that in the specific situation when a new member is going to be selected the existing code will be brought into open and become more clear. This is understandable from a reproduction perspective since in that process the future member of a category will be selected. And thus it will become clear if the assumption is that the cats should, or should not, be mixed with the ermines.

Firstly its important to notify who have the power to select, among a number of individuals, who should be chosen and who shall not be chosen. Then, what are the assumptions about the qualification demands of the specific place of work, and how those demands should be matched to the competence of the applicant.

Agents in the selection process

To start with the first question made above: who has the power to make the selection ? It became clear that, in the places where we made the interviews, it was the supervisor of the group and his closest foreman who had the final word. The personnel administration was involved, but they seemed to have more of a screening function. The groups on the shop floor were also involved but more with an advisory function.

Demand of formal education

In five of the places, where interviews were made, there was an established co-operation between the local formal vocational education and the industry. The first selection criterium was that the applicant had to have passed the formal education in the specific field of engineering. If the applicant had been at the industry as a trainee or practitioner, and behaved in a positive way, this was judged as important. Another important factor was if the applicant had worked in the industry during the summer holiday.

In some of the places, which had a long historical background in the local society, family relations were of importance. In one of the places was a factor of the selection to be living in and have strong connection to the local society of importance.

The grades from formal education were of less interest, and I quote:

”Of-course he must have passed school and must be able to read and write, speak English and understand drawings but...”

In one industry, where interviews were made, there was no formal education in the specific field of engineering in the neighbourhood. The closest was located some two hundred kilometres away. The selection was then made between applicants who had a formal education in a neighbouring field of engineering. The mere length of the formal education became a factor of selection, in the interviews it became evident that it should not be too long.

To employ individuals with a longer theoretical education than was assumed to be necessary was, in all the places where we made interviews, seen as a direct mistake. In all the interviews the following question was posed:

"There is a lot of educated young unemployed Engineers in this field of engineering around. Why don't you employ them as operators or to work on the shop-floor ?"

This question was, in all places, met by stunned silence. The respondents looked at each other, shook their heads, smiled, frowned or showed in other way their surprise for such a question.

Some quotations highlight their answers:

"They work here only for a while and when something more interesting shows up, they leave."

" They don't want to have dirty hands."

" Perhaps, if there is a staked road for advancement they could be employed, but then the decision is coming from above."

"We once tried to employ some Engineers, but they didn't suit into our way of work."

In the answers it can be noted that the respondents talk about *them* and *us* as two clearly different categories which should not be mixed in the context of work. It indicates a strong collection code which prevents that new categories might step into the control room or onto the shop floor.

It's also noticeable that the staff working with training carried the same code. This is understandable since their background was, in most cases, from the shop-floor to a position as supervisor and then into administrative work with training.

The ideological and normative qualification demand

In the interviews were also questions made about the selection and what was assumed to be important when a new employment was at stake. It became clear that those issues almost always were about things which can be related to the ideological and normative qualification demands.

On questions which concerned what criteria the supervisors thought was most important it can be quoted from a number of similar answers:

If he is interested in picking berries or is interested in the nature it's good. Then I know that he probably has patience and endurance.

"Most of all he should be interested and busy himself with physics, then you know that his body is strong"

It can be noted that there was an attempt to match the real competence with the ideological and normative qualification demands since the supervisors tried to find out about the applicants attitudes and values and maybe most of all their reliability and persistency.

Discussion

The data indicate that during the selection of applicants there is a strong collection code. The classification principles rely not only on formal education but also to a great extent on the assumed importance of the ideological and normative qualification demands.

What I find most interesting is that those with a long formal education is not chosen when a new member of the operator team in the process industry or on the shop-floor is going to be selected.

Although, in all interviews, it became evident that the organisation of work was, more or less rapidly, changing toward an organisation system with increasingly autonomous groups which both planned and performed the work, it still was assumed to be a disadvantage with a long formal education. Furthermore this assumption will be sustained since those who make the selection of the individuals are themselves established members with high reputation within the group in which a new member is going to be selected.

So it seems that a long formal technical education will, at the same time, give possible access to a higher hierarchic levels, and close the door to the lower levels.

It is a contradiction that, in one way, a long theoretical education is looked at, as something the industry is in need of since it is assumed that the education will give broad competencies which suits the assumed qualification demands of a socio-technical organisation system. On the other hand the selection, in reality, is made by agents who prescribes a collection code and emphasises the ideological and normative factors when deciding what qualification demands are important in the reality.

The result must be seen, as previous stressed, just as an indication. The fact that the interviews were made in large, male dominated, industries set clear limits fore more general conclusion. But one might wonder if not the same, or even stronger collection codes regulate the process of the selection in the recruitment in smaller industries.

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The Danish Vocational Educations and the Interrelation of the School-Based and the Firm-Based Parts

The Danish initial vocational training programmes (IVT) are organized as alternating educations. Education in a school or a college alternates with practical training in a firm, and the success of the dual system depends on this alternation and a close interrelation of the school-based and firm-based parts. Various studies however show that the students do often not perceive this interrelation or benefit from it, and it is required to study what might improve the students' ability to do so. In this connection it is necessary to define what kind of interrelation we want. In this article I will first briefly describe the Danish IVT-system focusing on how the organization, regulation, and legislation of the educations constitute a basis for an interrelation of the school-based and firm-based parts or of the theoretical and practical parts. Then I want specifically to focus on the commercial educations and describe some of the problems concerning the establishment of the interrelation. Finally I will try to define the optimal interrelation.

The Danish IVT System

There are around 90 technical education and commercial education programmes.The programmes are between 3 and 4 years of duration, alternating between school-based education in the technical or commercial colleges and practical training in a firm. The Danish IVT system comprises more practical training in a firm than the Swedish system and more school-based education than the German system, and has therefore been described as a „cultural bridgehead between the European dual apprentice system and the school-based models of the Nordic countries." (Nielsen, 1996). More precisely the programmes consist of three parts: *vocational training* which mainly takes place in a firm and occupies at least 50% of the entire education, *vocational specific theory* which mainly takes place in the colleges, and teaching of *general subjects* which solely takes place in the colleges. The current debates about the IVT centre around the amount of general subjects and the relation between the general and specific parts of the education programmes.

There are two ways into the IVT, *the school route* (chosen by 65% of the IVT cohort in 1995) and *the practical route* (chosen by the remaining 35% in 1995). Taking the school route the student begins with ½-1 year at school (technical colleges) and 1-2 years at school (commercial colleges). After that he makes a contract with a firm for the rest of the education (around two years). The student completes his practical traning in only one firm. [1] During the practical training the student alternates with school-based education (in commercial colleges courses of between 1 and 6 weeks, in technical colleges of between 5 and 10 weeks). Taking the practical route the young person makes a contract with a firm at the beginning of the education programme. In the practical route the student alternates between school-based education and practical training from the beginning of their education.

The Administration and Regulation of the IVT

The firm-school interrelation understood as the adaptation of educational programmes to new qualification needs is reflected in a tripartite interplay between the state and the social partners (the employer and employee organizations). The cooperation takes place both centrally and on a decentralized level:

The Vocational Education and Training Council makes recommendations concerning new educations and adjustments of existing educations, the teachers' qualifications and the setting up of ad hoc trade committees. The recommendations are adressed to the minister of education. There are 20 voting members

in the council, among those eight from the Danish Employers' Confederation (DA) and eight from the Danish Confederation of Trade Unions (LO). Besides these, municiplities, counties, teachers' and, students' organizations, and various ministeries are represented. *The Department of Vocational Education and Training (ESA)* in the Ministry of Education excercises the central administration, approves new types of training and readjustments of existing educational programmes.

For each IVT course there is a *trade committee*. The trade committees are responsible for the individual IVT course as concerns curricula e.g. the amount of school education and practical training in the course and adjustments or renewals of the course. It is the task of the committees to investigate and formulate new qualification needs, in accordance with these work out new curricula, and address them to the Ministry of Education. Thus the committees are "the link between the identification of new qualification needs and the educational answers to these." (Nielsen and Andersen, 1997). The committees consist of representatives from the labour market organizations (with parity of membership).

On the local level the interplay of the school education and the labour market is executed in the *local education and training committees*. The committees which consist of representatives from the local labour market (parity of membership) participate in the "translation" of the centrally formulated targets into relevant activities in correspondance with the local labour market. Besides the committees play an important role as intermediary between the local firms and the college, e.g. in connection with the students' practical training .

The Recent Legislation of the IVT

In 1991 new legislation concerning the IVT was issued, implying important changes especially in the technical programmes. Apart from a reduction of the IVT programmes from 285 to 85, the reform of 91 among other things aims at a close interrelation between the school-based education and the demands for new qualifications:

One of the consequenses of the reform was that the colleges were given grants according to their number of students. *Decentralization* meant that the role of the local college governing boards was strengthened with the introduction of financial self-management. The possibility of setting up local activities was thus improved.

Management by objectives, that is steering by targets and frames, means that the colleges within the centrally given frames and targets have great freedom as concerns the financial management and the contents of the curricula. This increases the possibilities of adaptation to the local labour market.

Finally the reform has brought along the necessity for important *pedagogical changes*, e.g. more interdisciplinary activities and project work.. The development from teaching separate subjects to interdisciplinary projects makes it possible for the students to work with locally work-place related issues.

In 1996 a renewal of the commercial education programmes (i.e. sale, wholesale, and office) was carried through. The renewal meant greater emphasis on general commercial subjects resulting in an extension of the school-based part with up to one year. At the same time greater emphasis has been put on working with realistic workplace problems e.g. in projects in cooperation with the local labour market. In the new commercial education programmes it is sought to combine a relatively high level of theory and book-learning[2] with considerations for the students' wishes for much practical work and relatively few general subjects.

Why is it Difficult to Create an Interrelation of School and Firm in the Commercial IVT-programmes?

As mentioned above a most central aspect of the Danish IVT-system is the alternation of the school-based and firm-based parts and the equal status of the two parts. The frequent alternation illustrates the attempt

to establish a close connection between the two parts. The dual alternating system is being preserved not only for reasons of tradition, but also because it is thought to offer various advantages:

1. The close connection between school and firm gives the young people a realistic picture of the demands on the labour market.
2. The tackling of real problems is a motivating factor for learning the teoretical parts of the education.
3. The contact with a firm may prepare the way for later employment.
4. The firms often provide the access to new machines, new technology, and the most recent production concepts.

Compared with the technical programmes the establisment of the interrelation between school and firm in the commercial educations is especially challenging: With more emphasis on the theoretical subjects and very little practical teaching in the school parts of the education the commercial educations are closer to the general upper secondary education than is the technical programmes. Thus the gap between the school-based parts and the firm-based parts is much wider in the commercial educations than in the technical ones. In the recent years, however, greater emphasis has been put on practical issues, e.g. with the development of ”simu-workshops” in which the students try out various jobs within sale and office. Thus it is currently attempted to improve the interrelation of the theoretical and practical parts.

These efforts are very much due to the fact that the interrelation does often not work out satisfactorily. Studies (Andersen and Iversen, 1995 and Aarkrog, 1994) show that the students do often not perceive or understand the interrelation. Accordingly the recent studies of the commercial educations have dealt with the problems which are connected with the establisment of the interrelation (Aarkrog, 1997). The following is a description of some of these problems.

One problem concerns the connection of the general and broad commercial subjects in the school part with the students' concrete practical experiences in the firm. As the students complete the practical part of the education in only one firm a great responsiblity for securing the general and broad qualifications rests with the school. The teachers' task is thus to illustrate a connection between concrete examples from the students' experiences in their firms and the theoretical and general part in the school. This is further complicated by the fact that the students often work in different firms. It is therefore impossible to pay regard to all the students' experiences and consequently difficult to illustrate the interrelation.

Another problem concerns the training in the firms. The firms may contribute to establishing the interrelation by offering varied training programmes including time for ”reflection of practice ” (Schön 1991). Although the firms must obtain authorization in order to take apprentices, they differ considerably as concerns the structure and organization of their training. At one end of the scale one finds firms which regard the apprentices as part of their workforce, giving them rather few and often simple tasks to do. At the other end of the scale the firms are interested in education and they set up a training programme for each apprentice, securing that he or she obtains various skills within the firm. The awareness of the importance of education in the firms is thus another important variable in the school-firm interrelation.

A third problem, which is probaly the most important, is the students' ability to formulate what they learn in the school-based or firm-based parts. This ablity can be strenghtened by using evaluation methods which are not only marks but also formulation of the students' accomplishments.

Yet another problem concerns the contact between the college and the firms. In many cases the contact is sparse containing one-way communication from the college to the firms: letters about the date for the next school-based part and information about the students' marks. Mutual knowledge about the contents of the training or teaching, muual visits, and meetings have just recently become more common. This is partly due to the fact that the contact involves one college but many firms. Accordingly it is often the students who function as go-betweens, which emphasizes the importance of their ability to formulate what they have learnt.

Finally a problem concerns the students' motivation. It seems as if meeting real life in the firms

intensifies the students responsibility. Most often they endeavour to do their best in the firms whereas the responsibility for the school-based part is more difficult to mobilize, and perhaps even diminishes in the encounter with real work-life. This is not only due to the contents of the school-based part but also to the organization of the contents in separate subjects, which make the school-based part more abstract and even unrealistic compared to the learning processes in the firms. The students' lack of motivation for the school-based part makes their wish to connect the firm-based and school-based parts less important.

As described the lack of interrelation can partly be described by the diversity of the students' practical experiences. In order to solve this problem some of the large firms or chains have made special arrangements with the colleges about setting up school-based courses especially designed for the students in one firm or chain. This means establishing a one-to-one relation between the college and the firm. In these types of cooperations the students are more likely to benefit from the interrelation between the school-based and firm-based parts.

These types of firm-adapted courses are especially wide-spread in the sales education programme. It is thus quite common that the colleges set up special courses for chains of supermarkets (= chain courses). The chain courses are characterized by a very close connection between the school-based and firm-based parts which is obtained by creating many similarities between the two spheres: The school-based part does not take place in the vocational college but in buildings owned or rented by the chain of firms. The contents of the course build on examples from the chain solely and the theory must be relevant to the practical part. The teaching is conducted by at teacher from the vocational college, but he is often assisted or attended by a person from the firm/chain. Many of the students share the same experiences from the practical training or may even be work mates. This type of cooperation between firm and school means that the students easily recognize features or facts from the firm in the school-based teaching and vice versa, which enables them to describe the interrelation between the school-based and firm-based parts. The chain courses thus seem to be one way of solving the lack of interrelation in the IVT.

However the chain courses arise other problematic questions especially about the narrowing of the qualification scope stemming from the close adaptation to only one firm. There seems to be a conflict between the efforts to obtain a clear connection between the school-based and firm-based parts and at the same time securing the students a broad, flexible, and general education. Or in other words: What should be the characteristics of the interrelation if the students are not only to benefit from it during their education but also afterwards?

The Optimal Interrelation

The characteristics of the interrelation are yet not really clarified. Thus it says in the regulations from the Ministry of Education that a close and concrete link with the firm-based parts must be secured. At the same time it is evident from the regulations that broad and general qualifications are imperative, and they can only be realized with a more abstract connection between the school-based and firm-based parts.

The reason for the maintenance of the dual system must be that this system is supposed to give the best education outcome: The optimal connection between the school-based and firm-based parts must be one which results in the optimal education outcome. The concept transfer is used to describe the education effect and is defined as the students' abilities to use what they have learnt and accomplished during their education in their professional work life afterwards. Especially their tackling of new situations or problems is of interest. The concepts "interrelation" and "transfer" share the common characteristics that they both concern the comparison of two settings and the ability to use in one setting what is learnt in another. The relation between the two concepts is therefore the main focus in new study (Aarkrog 1997), in which the following three hypotheses will be investigated:

The first hypothesis is that an extensive interrelation between the school-based and the firm-based parts as in the chain courses will give the optimal transfer. The argument for this is that an extensive interrelation will currently train the students to use what they have learnt in one setting in another and thus make it easier for them to do the same in their professional life.

The second hypothesis is the opposite: the more extensive interrelation between the school-based and firm-based parts the students experience the less their ability for transfer. The argument is that a close interrelation results in narrow specific qualifications which are hard to use in new contexts.

The third and last hypothesis is that there is an optimal point for interesection of the degree of interrelation and the degree of transfer. If this is true it will be possible to describe courses in which a certain degree of interrelation between the school-based and firm-based parts will provide the students with the optimal conditions of transfer.

Considerations about how the students perceive, understand, and benefit from the interrelation of the school-based and firm-based parts in the IVT should take the result of this study as their starting-point.

Notes

1 Some of the students have difficulties in finding af place for practical training, e.g. because of their ethnical background. These students sign af contract with their college where they continue in a simulated practical training course.

2 As a consequence of the competition on the labour market from the academics.

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The Dual System - A Static System?

1. The situation in the autumn of 1996

With the 1996/97 academic year about to begin, Germany finds itself facing a shortage of over 100,000 training places within its so-called Dual System. We see the Chancellor contacting the directors of various large corporations, and asking for more training places to be created. Similarly, the SPD has organised a one-day seminar in November under the heading 'New Opportunities for German Youth', with 'Education and Training' being the main topic for discussion.

The unions, employers' organisations, and influential economic thinktanks all find themselves criticising elements of the system's makeup, if not its whole structure, and are hence urging reforms to be carried out. This is not the first time, however, that the subject has come under discussion. One need only think of the 50-year discussion which preceded the abolition of the Training and Apprenticeship Law in 1969. Since then, opinions regarding the Dual System have ranged from those who claim it to be the `best training system in the world', to those who find within it numerous faults, including training wages, the contents set in some fields being too elaborated, and calls have been made for some traineeships to be split. Suggestions for its reform and improvement are for the most part, however, ignored by those in power. One need only think back to the numerous informed analyses and suggestions made in the 1970's regarding the co-ordination of school and workplace activities, and for the reduction in the number of training disciplines on offer.

Public-opinion, and more importantly government opinion, has only been awakened to the whole subject by the burgeoning unemployment figures among those who have completed their education, something which it is feared could lead to large-scale social tension.

1.2 The Dual-System's Strengths

The numerous disagreements which exist regarding the Dual System could well lead an outside observer to think that it hardly constituted a reputable system of vocational training. This, however, is far from being the truth, since there is ample evidence that the Dual System is indeed to be favoured.

The changeover process from trainee to employee is something (particularly where international comparisons are made) with which the system copes extremely well. Almost all school leavers are able on the completion of their studies to begin either vocational training within the Dual System, or embark on a course of study at an institute of further education or university. Some school leavers with the Fachhochschulreife or Abitur in their possession, do both. In addition, past experience has shown that the system copes extremely well with new vocational challenges and training needs by new vocational guidelines.

An important contributing factor towards the Dual-System's stability up until now has been the way in which the qualifications gained are appreciated for their practicality and relevance to everyday working life and their socio-political function in line with their „Beruflichkeit". It may well be the case that those professions associated with universities enjoy a higher degree of prestige. Nevertheless, vocational training is generally well-thought-of by the public, and up until recently, its completion meant certain employment.

Another important contributing factor to the success of the Dual-System has been the division of general and vocational courses only at the end of the secondary stage of education. Thus there is no need for differentiation to take place in these courses any earlier. Comparisons with other countries have

shown, where general and vocational courses are combined at the secondary stage, those students unable to meet the demands of general courses inevitably are selected to more vocationally-orientated courses. As a result, vocational subjects, whilst theoretically intended to enjoy the same regard as more general subjects by being taught side-by-side, invariably find themselves having little prestige, and in some cases even scorned. One need only look at the way in which vocational education works in American High Schools, at the apprenticeship system in France, or at the vocational schools in Central and Eastern Europe to have this confirmed.

Whilst the Dual System has numerous advantages, it should not be thought, however, that it can be adapted to all new political and economic frameworks, and that it is in itself a guarantee for success. Even whilst being subjected to praise from within and outside Germany in recent years, developments were taking place within it which would lead to the current shortage of training places for the academic year 1997/98, which in turn has led to the raging discussion taking place today.

1.3 Proposals for reform

Proposals for reform since made by politicians and leaders of various organisations all share the same characteristic in being either short-term, run-of-the-mill solutions, or obvious attempts at furthering their own interests. Whilst on the one hand they encourage popular interest in the subject (and therefore indirectly the creation of more training places), on the other they are counter-productive in that they endanger the system's strengths. The most important questions which need to be answered are the following:

- How is the popularity of the Dual System to be maintained or even increased in comparison with that of its 'competitor', the university system?
- Can the Dual System cope with the vocational training needs of the post-industrial economy and the qualifications demanded therein?
- Can what have been until now tried and trusted bridging mechanisms between the training and workplace environments, be relied upon to and is it possible to maintain the consensus-orientated social partnership.
- Should the division or the integration of general and vocational educational be pursued in the context of European Union or global harmonisation?

The German Minister for Education, Science, Research and Technology, Jürgen Rüttgers ,and the German Chancellor have both clearly set their sights on changes within vocational education. They suggest a more practical orientated way of vocational education with narrow skills and less schoolish instruction. Certainly the question raises itself whether the length of training undertaken by a catering assistant should be the same as that undertaken by a bank clerk. This, however, is not where discussion should be centred. Calls are being made for subjects to have a greater degree of practical relevance, with the current syllabus being regarded as too wide-ranging. After all, the aim of vocational education should be to limit knowledge to that which is seen to be useful and practical. Hence Rüttgers comments regarding the excessive amount of irrelevant material present within recently established courses e.g. the amount of economic theory presently taught within the course framework for travel agents. The study of business English, a supposedly integral part of the syllabus for the newly-established international 'Kaufmann/Kauffrau' qualification, and an essential requirement for the workplace, is often neglected because of the latter reason. A reduction in the amount of material taught would be supported by commercial bodies, since it would be a means of reducing their own training costs. Rüttgers proposal that those with the Abitur qualification should not apply for the more expensive training options offered within the Dual System, thus leaving the way open instead for those who have attended 'Hauptschule' and 'Realschule' to apply for them, would seem reasonable if this were accompanied by increased expenditure on, and promotion of vocational training colleges (Fachhochschulen). This would, however, put the whole raison-d'^tre of the Dual System as a career-development system into question.

The situation can be regarded in a different way however, and even Germany's dominant commerce and industry organisations are seen to hold a partly different opinion. They regard the „Beruflichkeits-"aspect to the training given within the Dual System, and the equal status accorded general and vocational training, as factors strongly in its favour. Hence the chorus of disapproval which accompanied North-Rhine-Westphalia's proposal document `The Future of Training - Future Schooling'. It contained a number of ideas concerning vocational training and further education, with a strong favour for regionalisation and schoolish full-time institutions. The two main ideas put forward (modularization, dual-qualification) are both proposals, however, which on no account would further the aim of ensuring `The Equality of General and Vocational Education'.

Modularization in itself entails the abandonment of the principle of vocationalism. This has been seen to be the case in Germany's neighbouring countries. It also encourages expenditure on training to be reduced to an absolute minimum, by only giving that which is seen to be absolutely necessary. Consequently, professional training within the Dual System is rendered pointless, and modular training becomes the order of the day once university or college education has been completed.

Likewise, the wish to have vocational and general subjects accorded the same degree of value by means of dual-qualifications i.e. students are able to obtain both vocational and general qualifications, inevitably involves the integration of vocational training into the school system. Numerous countries have found that by carrying out the latter, the result is not equality between both areas, but instead a loss of status for vocational subjects, which in turn leads to their stigmatisation.

Proposals made for structural changes within the field of professional training by the German Ministry for Education, Science, Research and Technology, as well as by the NRW Training Commission, all have as their central focus the need for a complete overhaul of the Dual-System. However, since hardly any of the proposals put forward are likely to be put into practice, it seems inevitable that attention will once again revert to the subject on which there is the greatest degree of assent - 'The Shortage of Training Places'. Nevertheless, the Dual-System still lacks the stimulus it needs if the required reforms are to be carried out. The danger is that it will increasingly become a backward-looking, static system, unable to cope with even medium-term changes, and finally even failing in its function as the bridging mechanism between school and workplace.

At the end of the day the question which faces us is the following: How can the attractiveness of the Dual-System be maintained (if not increased) when placed in direct comparison with the university and college system?

2. International Developments and the Dual System

Discussions regarding this subject in Germany have up until now been concerned solely with what has been happening within it own borders. That the discussion has been limited to this extent is remarkable in itself, but all the more so as it is generally takes place solely in relation to economic and budgetary criteria. Nevertheless, it has long been understood that developments within a country can only be understood when seen within an international framework. Therefore, fundamental factors such as the international economic and political situation need to be examined if an understanding is to be gained of those influences already having (or soon to have) an effect on Germany.

2.1 The Globalisation of Markets and New Commercial Strategies

Within the European Union, the exchange of goods, services and labour is increasingly becoming an everyday normality, and companies have also not been slow in taking advantage of these possibilities. Where workers are not willing to relocate to industrial and service centres, companies find themselves relocating to them instead. They move to those areas which are able to supply them with a suitably qualified workforce, and where wage levels are deemed to be acceptable i.e. where costs are minimised and profits maximised. It should be noted that a strong emphasis is placed on the quality of the workforce. A result of the common European labour market has been that foreign workers are often preferred to Germans, where they are able to offer both the desired qualifications and lower salary expectations. In particular, Germany's Eastern

European neighbours find themselves in a very strong position, since their educational systems produce highly-qualified workers who perform well in international comparisons. In direct contrast, those Germans educated within the Dual-System are only able to compete where they are able to justify their higher salaries by being better qualified or more productive.

Global trading and manufacturing not only influence industrial centres, manufacturing methods and the labour market, but also commercial strategies. Fundamental commercial practices such as accountancy dominate company thinking, whilst any concept of social responsibility falls by the wayside, for example, the creation of free training places. German companies, in adopting these practices, are very much following the example set by other industrialised nations, where the belief prevails that the state should be responsible for vocational training, and not commercial entities. The current divergence in opinion between union and industry and commerce representatives on the one side, strongly in favour of the Dual-System, and single enterprises on the other hand, clearly reluctant to engage in the further creation of training places, very much reflects a global trend.

2.2 New Organisational Structures within Companies and the Dual System

According to Taylor and Ford's traditional concept of the division of labour, roles within an organisation were to be clearly defined, from trained production line workers to those involved in further assembly work, from production supervisors to factory managers, from product designers to production engineers. This hierarchy of labour, also to be found within the service and public sector, is now gradually being dismantled as a result of the adoption of new production concepts such as lean production, and new organisational structures such as groupwork.

The resulting effects on the traditional division of roles in the workplace, including both red- and white-collar workers, are clear for all to see. Roles involving relatively simple work, learned through years of practice, are rapidly disappearing. Taylor's division of labour is slowly becoming obsolete. The dismantling of hierarchies brings in its wake a need for greater co-operation and communication, as well as a need for greater responsibility and improved decision-making abilities.

The skills and specialised knowledge arising from the Dual-System have been significantly affected by the developments outlined above. Routine production and administrative tasks are increasingly being rendered unnecessary through automation, with the result that many positions previously occupied by dual-system graduates, are disappearing. Planning, maintenance and supervisory tasks, all of which are gaining in importance, are increasingly carried out using microelectronics, accompanied by a small number of highly-qualified employees. Graduates of the Dual System find themselves in increasing competition in the labour market with the economists and engineers emerging from the universities, and often find themselves at an unfair disadvantage. This is because, up until now, flexibility when faced with new situations, communication skills, teamwork and a willingness to improve existing skills have not been duly emphasised within the Dual System.

In other countries such as the USA, the emphasis is very much on the continuance in the teaching of traditional subjects within the college system, and hardly any voices are raised in objection. Since the eighties, traditional skilled apprenticeships have lost so much ground that a graphical representation of the level of educational attainment at the workplace now resembles a camel rather than a dromedary, as was previously the case. In Germany, a number of those currently being educated within the Dual System, are recognising the changing times and the need for a more broadly based qualification, by taking up courses for higher qualifications without a real chance to get an adequate occupation after that.

2.3 Can Equality of General and Vocational Education be achieved through Dual Qualifications?

There exist within the 15 states comprising the European Union a wide variety of professional training frameworks. The harmonisation of these systems through a convergence of standards seems highly unlikely ever to take place; instead the EU has been concentrating its efforts on providing

methods of assessment for the training undertaken, the aim being the mutual recognition of qualifications between member states. With this in mind, it has been suggested that professional training should be divided into five different stages, including the university stage. Thus, professional training would be seen to encompass all forms of education which lead to a particular vocational qualification or activity. It should be noted that the stages referred to generally reflect the pure school-systems of professional education.

The division which exists within the German system between general and specific vocational subjects also has its negative aspects. In particular, it fails those wishing to study simultaneously for both a general and vocational qualification. The norm in Germany is for professional training to follow on from a general qualification. In France, however, since the introduction of the baccalaurat professionel, it has been seen that to have vocational subjects taught from an early stage leads to a higher degree of educational attainment, with almost 80% of a particular year's intake reaching `Abitur' standard. In almost all countries where, as in France, vocational and general subjects are combined at the secondary stage, the same trend can be observed.

2.4 Modularization and Vocational Training within the Dual System

All the efforts made in Germany to ensure the same degree of recognition for both vocational and general education have fallen short of their target. It is ,however, due to vocationalism and the separation of vocational and general education institutions, not the case that vocational training is regarded as the last resort for those who have failed in academic subjects as in other countries.

In many European countries, vocational training at any other level below that of further education or training colleges remains very much in its initial or even planning stages. Vocational subjects are very much looked down upon within these countries, and are seen as suitable only for those unable to cope with more academic ones. Skilled apprenticeships are not generally regarded as giving students a set of qualifications which will improve their employability on the labour market. Instead career paths are generally the result of responding to particular business needs. Modularization (compact courses generally below the level of professional needs) is currently the subject of much discussion.

Seen in a German context, modularization ,which would lead to the partial abandonment of vocationalism, would allow a greater degree of flexibility in the way in which a qualification was obtained, and therefore, it is argued, result in less restricted employment prospects. Companies who feel themselves unable or unwilling to support three-year skilled apprenticeships within the Dual System, naturally find themselves attracted to the idea of modular training. Although the partial abandonment of the principles of vocationalism and craftsmanship can lead to a greater degree of flexibility in the subjects taught, in the long term this can only lead to the gradual downgrading and dismantling of the Dual System, and the further promotion of university education. The qualifications gained within the latter necessarily being of a broad nature, would need to be supplemented by in-company training programmes.

3. How are Professional Standards to be maintained in Germany?

Questions need to be asked as to whether the Dual System is able to offer the degree of flexibility needed if the challenges outlined above are to be met satisfactorily.

3.1 The training required for the qualifications of tomorrow, and the reconciliation of recognised professions with current labour market demands

Training methods need to react to changes within society's economic structure. It would seem sensible for courses to be adapted according to changes which can be seen taking place within the workplace, thus enabling greater security of employment. According to surveys carried out by the German Institute of VET, next to specialised vocational qualifications, companies generally regard skills of a general nature such as `organisational, leadership and communication skills' as representing the most important characteristics needed by employees. In particular, emphasis was repeatedly laid on

teamwork, the ability to resolve conflicts, and foreign language skills.

The Dual System has been very slow in responding to the general shift towards service industries. An example of the system's lack of flexibility was seen in 1969 when a new profession was designated `Datenverarbeitungskaufmann' (data processor). The designation process has yet to be completed. This inability to offer students with new and innovative career training choices has forced many to turn their attention towards degree courses of an academic nature, where new ideas have been rapidly absorbed into the curriculum.

3.2 The Replacement of Dual System Graduates with those from Universities and Institutes of Further Education

But what is the point of securing higher standards in educational attainment when, in actual fact, the tasks carried out upon entering the labour market are simple in comparison, requiring only a fraction of the knowledge gained. This underuse of knowledge ,unaccompanied by preparation for labour market realities (which again in itself would put even greater demands on the system), can only lead to it being lost in the medium-term.

This state of affairs is not only the result of increasing productivity, but also of increasing competition between graduates of the Dual System and those of the universities. Since both are assessed by employers in the exactly the same manner, it is hardly surprising that competition for each vacancy has become more intense.

This in itself represents a real threat to the future existence of the Dual System. The lesser degree of importance given to specific qualifications favours those who have studied a wide-range of theoretical subjects i.e. university and college graduates. The costs involved in training them do not have to taken into account. Youngsters facing career choices are naturally sensitive to such changes in employer attitudes, and the insufficient supply of much sought-after training places within safe areas such as the banking sector has led to an increasing preference for the university system.

The changes in behaviour seen within the field of educational training are to be expected, since despite all statements made to the contrary, a university education is undoubtedly more highly regarded than the combination of theoretical and practical training offered by the Dual System. Thus, its distinguishing characteristic, namely professional skills training, is under threat. Numerous examples can be cited here, including those of Japan, Korea and the USA, where similar tendencies can be observed.

3.3 Are employers becoming increasingly tired of their role in training?

The market for traineeships is characterised by the over-supply of candidates available for the vacancies present within it. One reason for this is the fact that increasingly cost-conscious companies, run by university graduates unfamiliar with the Dual System, see in reducing the number of traineeships on offer a way of further reducing their expenses. Correspondingly, the training budget is increasingly subject to demands for its freezing or reduction, and for other sources of finance to be sought.

Unfortunately the situation is somewhat more complicated. For example, out of the 55,000 training places on offer for highly-skilled positions within the metallurgical and electronic engineering industries last year, 7600 remained unoccupied in August 1996. Undoubtedly the prevailing opinion here is that there is difficulty in gaining a secure position once such training is finished, and that the work is in any case low-skill. Office and IT work is generally preferred by the youth of today, but unfortunately there are not enough positions on offer. Not only does this show how the Dual System has failed to adapt itself to changing requirements, but also that those occupations enjoying a greater degree of prestige are inevitably in great demand.

3.4 The Lack of Specific Focus to Training within the Dual System

The seventies saw the beginning of an expansion in out-company training facilities. Initially, educational reasons were put forward as to why this was taking place. Subsequently it was said that the expansion was

due to the shortage in the number of training places on offer. Their purpose often lies in promoting educational standards set by the German Ministry of Labour, in whose framework also lies the Dual-System. In Mecklenburg-Westpommerania almost 30% of all training is carried out by means of out-company training facilities.

This development has meant, however, that almost a fifth of all trainees are deprived of the Dual-System's main strength i.e. a specific focus to their vocational training. An even larger problem is the increasing divergence between labour market needs and the training opportunities on offer. Looking at those who began their training in 1991, 59% who were trained at the workplace were still in their chosen profession at the end of 1995; the figure for those trained in an out-company environment was only 32%.

3.5 General Course Content in Relation to Training

Discussion is mainly centred on the degree of flexibility offered by the university system, and by qualifications of a general nature (Haupt-, Realschule, Fachhochschulreife, Abitur). The discussion regarding the introduction of course content of a fundamental and non-specific nature e.g. Business English was taken a long time ago, because it would lead to an expansion in school-instruction which is on the other hand not wanted by employers.

Within the current framework, it is not possible for an improvement in the range of subjects taught at the secondary stage to then lead to an improvement in the standard of education offered by the vocational and technical colleges. Since school-leavers with the Abitur qualification, backed by knowledge in a broad range of subjects, have a much better chance of gaining entry into a wide range of professions, the ever increasing popularity of the Gymnasiums hardly needs explaining.

4. Career-Orientated Education - Demands and Conclusions

If the Dual-System does not react to the challenges it faces, and fails to modernise itself sufficiently to enable it to respond to the needs of post-industrial society, it will find itself hopelessly disadvantaged in its struggle to gain equal recognition with other training paths, in particular those offered by the universities and colleges.

Drastic reform needs to be carried out within the Dual-System, not only internally but also colleges and universities have to be taken into account.

The energies currently devoted to internal strife need to be redirected towards achieving a common aim i.e. the modernisation of the Dual System.

4.1 The Division of the General and Vocational Educational Systems

The division of secondary education and vocational training (Dual System, training colleges) has proven worthwhile. It is only after completion of studies within the Haupt-, Mittel-, Real-, Gesamtschule or Gymnasium that it is possible to go into vocational training. Thus a discriminatory selection process at an earlier stage is avoided. Additionally, this also helps achieve the aim of equality between academic and vocational subjects. The Realabschluß and Abitur qualifications should be additionally obtainable in vocational colleges. Above all, it should be ensured that fundamental subjects such as German, foreign languages, mathematics, the sciences and the arts are all offered in sufficient quantity and at sufficient depth at these training establishments.

4.2 Primary and Secondary Schools

Many comprehensive school leavers find themselves unhappy in their choice of career or university course, often because of unrealistic ideas or expectations. Because of this, working practices or social studies should be offered as a subject in all schools. Its aim should be to enable pupils, upon reaching the end of their first-stage of education, to make better informed decisions regarding their career choices. Where these subjects are already taught, however, it would seem that this aim has only partly been achieved, and the time would seem right for a radical overhaul.

4.3 The Dual-System

The Dual-System needs to be modernised in a number of ways. Nevertheless the principle of practical relevance must be maintained. The number of different paths within the Dual System needs to be reduced, or alternatively, resources should be directed more specifically, according to curricular aims. Nowhere should the status of teachers be allowed to influence decisions.

The Dual-System needs to made more attractive for companies involved in training, for example, by responding more positively to their individual requirements in the last year of training; by the division of training costs; and by making the Training wages more flexible.

The Dual-System needs to be made more attractive to school-leavers, for example, by encouraging higher standards, so as to satisfy those with more demanding qualifications ,such as the Fachhochschulreife and the Hochschulreife; by allowing the creation of part-qualifications for those professions where learning is a gradual process e.g. craftsman, Fachwirt, and technicians; and by allowing relevant work experience to contribute towards the qualification gained, through the introduction of a credit system.

In order that the Dual-System be fully rounded, full-time vocational colleges should be established where training needs cannot be satisfied by the normal allocation of time, and where the theoretical nature of the subject undertaken renders this necessary. By doing this, not only is a greater degree of competition encouraged, but additionally higher standards, thus widening school-leavers' options when faced with career decisions.

The following suggestions are made:

Trainees who are gifted and motivated, and have the Realabschluss in their possession should be offered the possibility of gaining the 'Fachhochschulreife' in addition to their vocational qualification. The additional teaching would take place on Saturdays and on an additional school day, and the teaching in general subjects which would otherwise have taken place, would be forsaken. As a complementary development, dependent upon the success of the latter, the possibility of acquiring the 'Hochsschulreife' could also be investigated.

The partial acquisition of professional qualifications

Skilled and technical training normally continues once training within the Dual System has been completed, with knowledge being deepened and applied on a daily basis. Therefore it has been suggested that trainees should be allowed to sit part-examinations which contribute towards the attainment of the full qualification. Extra teaching should be provided to compensate for the additional work involved.

A reduction in the number of trained-for professions, and an increase in degree of subject flexibility therein

For years there have existed more than 370 recognised professions involving training (BBiG), not to mention numerous branch-professions. Why, for example, is it the case that in the fields of metallurgy and electrical-engineering there exist two separate sets of training guidelines, when on a subject-basis there is clearly no need. The number of skilled professions should be reduced to less than a hundred, with the possibility of specialisation in a particular direction in the last year of training where desired. The specialisations on offer could differ according to region, and the Landesauschüsse (Regional Committee) for vocational training could act as a clearing house.

New Structures for Skilled Professions, Combined Professions, New Professions

In order to encourage greater mobility amongst employees, as well as a greater degree of flexibility within the working environment, it would seem sensible to have broader professions, and to consider whether the current emphasis on particular fields can be maintained in future. In a number of cases it would be useful for courses to offer an insight into neighbouring disciplines e.g. training in both commerce and

electrical engineering for metal-related professions. It should be noted that discussion regarding course content in itself encourages the promotion of key qualifications.

Those trainees willing to put in the necessary effort should be offered the possibility of combining different fields of study during their training e.g. industrial mechanics and industrial engineering. § 27b of the Skills Training Guidelines allows this to take place, be it to a limited extent, but up until now few have taken advantage of this possibility. It nevertheless offers students the chance in their third or fourth year of training of acquiring additional specialist knowledge without any loss in their mobility within the labour market. in this context one could speak of horizontal and vertical dual-qualifications.

Up until now the Dual System has characterised itself by its ability to adapt to the prevailing demands for training. A change seems to be changing place, however, whereby too few professions involving training are on offer. New disciplines, including those in the manufacturing field, seem to acquire entrants from long-established training disciplines. Only in certain cases, such as that of the Datenverarbeitungskaufmann, are exceptions to be found. The expanding field of data processing within the service sector, has up until now looked almost exclusively to the fields of electrical engineering or electronics, or to those retraining for another career, for its supply of new entrants. Where new disciplines are concerned, such as film and video editing, those entities able to train new entrants, such as radio and television stations, normally have very little information available regarding the training they have on offer, this in turn being a reflection of the little enthusiasm they have for the task. This highlights two ways in which the situation needs to be improved. Not only do more new professional disciplines need to be created, employers too need to be better informed about the training process.

Places of learning and the General Educational Curriculum

Relations between places of practical training and teaching institutions should be co-ordinated according to set guidelines and regulations, operating on the basis of theory and practice. Whether this actually takes place, however, is doubtful, as numerous critics have pointed out. The situation is made even more complicated by the existence of industry-wide training centres and training workshops, both of which are held in high-esteem by companies.

The general divisions in places of learning should not be maintained because they are symptomatic for an old-fashioned theory and practice Ideology. Learning centres are to be categorised according to the type of teaching which goes on there. A comprehensive vocational-curriculum needs to be developed integrating both training and teaching guidelines. Because of the existence of industry-wide training centres and vocational colleges, both in need of greater use, companies should limit themselves to simply acting as instructors for practical skills.

There is no reason why it should be necessary for every industry to have its own training centre, with similar training practices in each. Many vocational colleges have the facilities to carry out such specialised training. The co-ordination of training would be greatly facilitated were the use of these training facilities to be jointly organised, for example, during the first year of training. The same argument can be applied to teaching staff. Why shouldn't a teacher also work in an industry training centre, and vice versa? Here the bone of contention lies with the unions - on the one hand the Teaching Sciences Union and on the other the Metalworkers' Union. Neither side seems really to be willing to resolve their differences.

Nevertheless without equality between learning centres and between teaching staff, curricular co-ordination cannot be achieved.

Split in Authority, is the General Consensus in Danger?

In the past the Dual System was able to develop successfully with vocational parts under the auspices of national authorities and the general schoolish parts under the auspices regional educational authorities. The dominance of industry interests could be prevented by ensuring that all parties played a role, and that

a general consensus existed between them. Today this division in authority can no longer be justified. The experience of neighbouring countries has shown that ,where similar systems of training are in operation, and where internal strife has not led to the system's stultification (as seems to be the case currently in Germany), there is room for significant structural reform, whilst maintaining the working relationship between government institutions and the social partners! Among the issues to be tackled here is not only the problem of training centres, and the almost complete lack of agreement between training guidelines and the way in which the curriculum is taught, but also the examination system itself. For example, opportunities exist for decentralisation and part-examination within a credit system.

4.4 Full-time Vocational Colleges

According to the BBiG, the number of students currently undergoing full-time training in specialised vocational colleges is less than 1% of the number being trained within the Dual System. Therefore, these schools represent a complementary rather than an alternative training route. For years the shortage in training places has been tackled by offering an ever increasing number of places at out-company training facilities. In 1995 the number of students attending the latter came to 77000.

The development of an alternative to training within the Dual-System for professions involving a large amount of theoretical knowledge, seems unavoidable. It would seem sensible for vocational colleges to work together with industry-training centres towards achieving this aim. Similarly, the first year of training could be regarded as the basic skills training year, with alternatives to professional training being offered subsequently. After the first year, students could then be offered the possibility of changing over to a skilled apprenticeship. Industry mistrust of such training schemes could be countered by carrying out extensive trials.

Using the model outlined above, the fundamentals could be established for an alternative training system, thus resulting in a greater degree of flexibility, particularly in relation to future developments within the European Union.

5. The Outlook

The future development of the Dual-System will depend on the degree of conflict between general and vocational education. The Dual System will only be able to survive in the medium term if it succeeds in adapting the professional training it offers, to make it appear both attractive and worthwhile to both secondary school-leavers and employers. Germany's neighbouring countries - Denmark, France, Austria, and Switzerland- all find themselves facing similar situations. Having already completed the necessary groundwork, and carried out a number of reforms, it would seem , however, that they are sufficiently prepared.

In Germany, the problem has only been tackled insofar as the state's acting partners and those in power, have both put forward proposals as to how a sufficient number of training places can be attained. The discussion is centred in this way in order to highlight a much praised characteristic of the Dual System i.e. its perceived ability to integrate school-leavers into society. Since the situation is unlikely to improve within the next few years, the need for politicians and those in positions of power to act will become even greater. It remains to be seen whether two of the distinguishing characteristics of the German economy and the Dual System, the general consensus and the social partnership, will emerge from the process unscathed.

If tried and trusted measures, such as the establishment of more industry-wide training centres and the subsidisation of training places within companies, are still found to be lacking, and developments in Europe continue on their present course, the pressure for reform in numerous fields (including the structure of professions, allocation of training responsibilities within both the general and vocational areas, the co-ordination of training centres, the role of authority within the training process, and the challenges posed by developments within the European Union) could become very great. The suggestions for reform made by the German Minister for Training, Science, Research, and Technology could represent the first steps needed in this direction. Nevertheless, a healthy dose of scepticism is needed where reform

of the Dual System is concerned.

If it is found that fundamental reform of the educational and training system is not possible, then it will be seen that the future of the Dual System lies in acting as a dumping ground for all those who have failed to achieve the much-vaunted Abitur and Hochschulstudium. Apprenticeships will then revert back to their previous role of training craftsmen and those seeking a career in commerce, similar to the role they have in other EU countries (France, Italy, Belgium, and the Netherlands). Since Germany is lacking in alternatives, such as full-time vocational colleges, the situation is very similar to that which is found in America. The more demanding professions are taught at university, whilst the others rely simply on on-the-job training. The analogy made by educationalist Geißler springs to mind, when he compared the Dual System to Venice - 'nice to look at but belonging to a different age', with the only difference being that Venice is likely to continue in existence!

It is possible to envisage the future scenario even today. One only needs to look at the much higher youth unemployment figures in other industrialised countries, accompanied by the so-called 'floundering period' (a time when school-leavers feel completely despondent about their future prospects), something which is (as yet) hardly discernible in Germany. This period of aimlessness, characterised by no work and no prospects, can last up to ten years, before training or a course of study is accepted. Again, one can look to a number of industrialised countries to see the social problems created by the latter, and the costs involved in setting up schemes to reintegrate young adults into the labour market.

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On the "Attractiveness" of "In-Company" Training in the Dual System of Vocational Training in Germany

Introduction

In Germany, intense debates have been held in recent years on the crisis of the dual system in vocational training. While some years ago, the focus of attention was on the fading attractiveness of in-company training, it is now on the dramatic lack of in-company training places.

The young trade union members are currently initiating protests, demonstrations and other actions to fight the decline in training places. Although all these activities emphasise the need for maintaining and expanding in-company training, the fact cannot be ignored that young people increasingly regard vocational training in the dual system as a dead-end street.

Paradoxically, the deterioration of chances for sustained and necessary quality improvements of in-company training in the dual system goes hand in hand with the gap between young people's demand for in-company training and the decline in the provision of training.

Some explanations to this:

1. The dual vocational training system in Germany has always had its deficits and structural shortfalls. Structural deficiencies are, in fact, quite typical of the system:

- Training does not take place in those areas and companies which offer the best prospects for employment after training;
- There was and still is a difference in the quality and mobility between individual companies and sectors of industry.
- Costs of training are unequally distributed.

These structural deficiencies affect young people trained under the dual system in different ways. Depending on the prevailing economic conditions, they may, after completion of vocational training, have to accept jobs for which they are overqualified or forced to accept jobs for which they have not been trained, or even face unemployment after in-company vocational training.

It is, therefore, not surprising, that training figures in the dual system of vocational training have dropped since the mid-eighties (while 1.8 mn trainees were taking part in the dual system in the 80s, the situation in 1996 was comparable to that of the late 70s when 1.24 mn young people participated in in-company vocational training.

2. Reasons for the lower attractiveness of vocational training could be cyclical trends as well as societal factors. The latter include the increasing trend towards higher level education and the corresponding extended years at school.

The educational background of vocational training has changed dramatically.

In 1970, 80% of all trainees were lower secondary school graduates (Hauptschüler); in 1990 it was 40%. On the other hand, 42% of all trainees today have completed intermediate secondary school or are college graduates. This is true in particular for women.

In addition, young people are faced with the fact that higher education - compared to vocational training - has a much higher standing. This refers to both income and position. University graduates earn more and are more likely to take a leading position later on.

As a whole, lower secondary graduates have been forced out of the vocational training system since the mid eighties.

3. In assessing the attractiveness of in-company vocational training, it is essential to also assess the future demand for skilled workers. According to findings of labour market and vocational research studies, these assessments are ambivalent, to say the least. The growing importance of controlling and maintenance work, for example, shows the growing demand for skilled workers while, at the same time, production-oriented work is decreasing.

Thus, the future development of in-company vocational training and employment chances for skilled workers will be decided by both, business strategies and future trends in educational policies, particularly pay rate policies.

4. Given these considerations, which direction should the dual system of vocational training take? The answer to this question requires analysis as to which components of in-company vocational training are worth being retained. Some remarks on this subject:

One of the main features of the ”dual system” in vocational training is the combination of in-company training, i.e. on- the-job training, and off-the job training, i.e. job-related learning in public schools. This interrelation between practical and theoretical learning obviously works in as much as the ensuing qualifications are useful for industry - at least this has been true in the past. According to industrial and sociological research, team work and holistic forms of work design are more common in Germany and can be more easily implemented than in European countries where vocational training systems are characterized by the strict separation between on-the-job training and school-based training.

Tightly linked to the interrelation between theory and practice is the specific connection between in-company training, i.e. under private law and training under public responsibility. According to expert opinion, the status of skilled workers and technical employees in Germany which derives from vocational training is much higher than in countries where vocational training is either in-company or school-based training.

5. Conclusion for the current demand for reforms in vocational training from a trade union viewpoint

The planned downgrading of vocational training through deregulation or more concretely, through conversion into mere on-the-job training which is intended by the Federal Government, is not acceptable. This is true, in particular, regarding the introduction of short 2 year training courses.

Instead, the aim should be to enhance the status of the dual system of vocational training within the overall educational system.

The broadly discussed ”declining attractiveness” and crisis of the dual system point to structural weakness in the overall education and vocational training system. This refers to the inequality of general and vocational education and also to the relation between economic conditions and the willingness to provide training. Deregulation and downgrading, however, are bound to result in an ever increasing number of young people turning away from the system of dual training and favouring (or having to favour) school-based and vocational training courses. Quite logically, this development will be at the expense of all those who are socially - and in terms of school education - disadvantaged. Their job and future prospects will deteriorate on a long term basis through deregulation of in-company vocational training.

6. For young people being considered as ”high quality” from employers’ business viewpoint, the opposite is true. For them, the attractiveness of training increases in line with their future job prospects. This means a sound job and employment perspective, regular work conditions and further education as well as enhanced income opportunities. Due to the change in value and attitudes of young people, additional job expectations rise. They want more demanding jobs with communicative opportunities

and the potential to participate in company decisions; higher expectations are also placed an environmental protection and management styles.

However, such attractive job opportunities are rare - in particular for those who attended vocational training. From a trade union viewpoint this means: It is the employers' responsibility to improve vocational training. Since companies profit from qualified skilled workers, this would also be in their own interest.

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The Crisis of the "Dual System" of Vocational Education in Germany (Phases, Syptoms, Reasons, Reforms)

1. Introduction

For a long time the dual system of vocational education in Germany has been regarded as successfull and irrefutable so that other countries, especially developing countries took the German dual system as a model when it came to modernize their own vocational system. On a whole this assumption is still reflected in the official papers of the Federal Government and also in the papers of the Bundesinstitut für Berufsbildung (Federal Institute for Vocational Education: BiBB) which depends on the government.

On the other hand the crisis of the dual system is taken as a central theme in scientific debates in more or less regular intervalls. During the 70th the focus of attention was the exploitation of trainees, while in the 80th the problem of the increasing number of schul-leavers applying for apprenticeships had to be solved and at present a fundamental crisis is discussed. In the following passages the reasons for the crisis of the dual system will be described. But first will be explained how the system developed and the meaning of the term.

2. Development and Character of the Dual System of Vocational Education

As in other European countries the German vocational education as a craftman, a business or a technical training has a long tradition which goes back into the medieval times with its guilds. In principle formalized vocational education was restricted to the sphere of craftsman and business up to the beginning of the 20th century and it took place in firms only.

Beginnings of a dual system date back to the first decades of the 19th century though school attendance was not obliged in those days. For example in the general law for the guilds (Allgemeines Zunftgesetz) of the grand duchy of Sachsen-Weimar-Eisenach of 1821 it says, the master of an apprentice should give his apprentice the opportunity to further education in writing and arithmetic and he should urge him to attend a public drawing school and mathematic lessons as far as there were any on the spot and he should also urge him to attend a Sunday School and a school for craftsmen if there were any.

Here we already find both basic elements of the dual system though neither masters nore apprentices were obliged to realize them in those days.This fact was not much altered when vocational training was organized by firms during the 19th century, as only a minority was trained there and those apprentices mainly were male young people.

A fundamental change occured around the turn of the last century. Schools for further education (Fortbildungsschulen) which had already been in existence were turned into vocational schools. Since then the attendance of all apprentices has been compulsory. That was the beginning of the dual system. It was established without any legislation.

The main reason why the dual system was established in those days was not the improvement of the apprentice´s specialized knowledge. No, the focus was the improvement of the "education as a citizen" (KERSCHENSTEINER 1914). So the dual system was established for political reasons. In those days the state had no chance to influence the formulation of political demands and objectives of young people at the age of 14 to 18 who had left school and who had not jet entered military service. The increasing number of members of the trade unions and social democrats who were considered to be enemies of the state in those days gave motivation for establishing the dual system (e.g.

LIPSMEIER 1994 p. 14).

The legislation of the dual system took place not before 1969 in the Federal Republic of Germany by the Vocational Education Act (Berufsbildungsgesetz). When preparations for the legislations had been made the term dual system had been used for the first time. The width of vocational education as well as craft, industrial, commercial, agricultural, and domestic training was regulated by law from now on. With these width of regulation the Federal Republic stands out from other counties with comparable vocational education systems.

Characteristic for the German vocational education is its duality. That means while the practical training takes place in firms the theoretical training occures at vocational schools. Also its resonsibility is divided in two. While training in firms is regulated by the Vocational Education Act (Berufsbildungsgesetz) the different states are responsible for vocational schools.

Compulsory education which takes 9 to 10 years depending on the state is followed by vocational education which takes 3 to 31/2 years. Regardless of a training there is a compulsory education until to the age of 18 which can be carried out in schools of general education with the aim of studying at a university or at vocational full time schools as well as at vocational part time schools. Only the last go with training in firms.

While in the past young people without any training who did not attend another school either got their schooling at a part time vocational school. They now attend full time vocational schools. A variety of different schemes like the Berufsvorbereitungsjahr (year of vocational preparation) and the Berufsgrundbildungsjahr (year of vocational basic qualification) have been developed since the 70th.

3. Phases of Crisis and Reform of the Dual System

3.1. Debates and Reforms During the 70th

Hardly had the Vocational Training Act (Berufsbildungsgesetz) been passed when a vocational education reform was discussed. Remarkable and different from all previous and following debates was the fact that the participants did not only emerge from professional responsible bodies of the politics of vocational education but in this case the apprentices themselves interfered vehemently either by youth delegations of the trade unions or by pressure groups created spontaneously.

Those debates were triggered by several changes. Technological changes required changes in the content of vocational education curricula. A process of democratization required structural changes and a new model of participation. A change in paradigm in education which focussed on emancipatory education required a capacity of mature judgement in vocational education under further existance of the traditional aim of vocational competence (e.g. LIPSMEIER 1994 p 17).

Apprentices critized their working conditions. They often were used as cheap working force carrying out easy tasks again and again with the result that they did not get the width of qualification required for the later job.

The government reacted on different levels.

Training curricula for vocational education in firms were developed or revised. The competence of the instructors had to be guaranteed (by the Ausbildereignungsverordnung). These steps should also prevent the apprentices to be exploited.

The number of trades was reduced drastically from more than 900 to 376 in 1992. With its progressive technical specialization of jobs this strategy assumes a broad qualification of vocational education with the result of Basic occupations.

The measures on the third level focused on improvement of full time schools for vocational education which meant the government itself undermined the dual system.

3.2 Shortage of Apprenticeships and Youth Unemployment in the 80th

1964 was the year of the highest birthrate in Germany. It was as high as 1,1 Million. Not before the

middle of the 70th responsible bodies realized that higher demands of apprenticeships could not be satisfied by an expansion of general education or by an extension of vocational full time schools. In advance of the expected higher demand legislative attempts to solve the problem failed because of different political majorities in the Bundestag and the Bundesrat. The socialliberal coalition of those days did not succeed in solving this problem. Therefore firms could not be forced by law to take on the obligation to train apprentices or to compensation payments into a fond if not ready to train apprentices.

Though down to a deficit of 5% the increasing demand of apprenticeships was satisfied. The demand increased by 65 % from 375.000 in 1975 to 665.000 in 1985 (BMBW 1993 p. 112).The situation was handled by an extension of apprenticeships by the business world especially by craft.

On the other hand the government took initiative on three different levels. The state itself created vocational training by expanding vocational full time schools. Secondly the state tried to motivate firms to increase their number of apprenticeships by financial incentives; additional apprenticeships got subsidized. The third level concerned the reduction of regulations that made training difficult for firms for example by changing the "Ausbildereignungsverordnung" and by changing the law on safety and health at work.

After 1986 the demands for apprenticeships went down and with the beginning of the 90th the supply of apprenticeships was higher than the demands. In 1992 in the old states for 721.800 apprenticeships there were only 403.500 applicants (BMB+F 1997 p 131).

3.3 The Topical Crisis

When mentioning "the old states" this makes clear that another problem has to be solved after the unification of the two German states. After a short transitional status the people of the former Geman Democratic Republic, now of "the new states", were confronted with the system of vocational education of the Federal Republic of Germany. At the same time most of their firms broke down and so numerous appenticeships vanished. Though there was a positive development by foundations of new firms. While there were 109.000 apprenticeships in 1993 in the new states the number increased up to 120.100 until 1995. But at the same time there was a far larger demand of apprenticeships. The demands increased from 138.300 up to 191.700 (ibid.).

Since 1993 there is a decreasing number of apprenticeships in the old states. At the same time there is an increasing number of applicants contrary to demographic prognosis. This is caused by an increasing number of moves from the new states to the old ones and an increasing number of immigrants - though they should rather be called immigrants: ethnic Germans from Kazakhia, Ukrainia, and Russia. In 1996 the number of applicants exceeded the number of offered training places. The difference was 45.000. For 1997 an ever larger demand is expected.

The different developments in the old and in the new states initiated a new debate about the dual system concerning topical symptoms and basic reasons.

4. The Current Debate

4.1 Symptoms of the Crisis and Their Reasons

4.1.1 The Cut-back in Capacity of Apprenticeships

Of the 1,6 Million firms in the Western part of Germany there are 564.000 which train apprentices (in other words 36 % of the firms) At the same time two thirds of Western German firms describe themselves as not capable of providing training (ibid. p. 45).

Particularly the offer of training places for skilled workers in industry and also for training places in business have been reduced drastically during the last four years. Apart from big firms of the business world public administrations also reduce training places.

As a result there is a higher proportion of the craft training. In 1991 the proportion was as high as 31,5 % and until 1994 it rose continuously up to 37 % and it is still rising.

The cut-back of apprenticeships in industry mainly affects jobs of the machine tool industry, of the motor industry, and of the metal-working industry. This fact is not only connected with economic recession but it also has something to do with new structures and concepts of personnel planing in the firms like "Lean Production". As a result there is a reduction of jobs even if the output of a firm increases. The number of training places is adjusted to the reduced demand of employees.

4.1.2 Intensified Selection within the Dual System

For young people with a lower secondary school leaving certificate a training within the dual system was the ideal way to become skilled workers in the past. With the educational reform of the 70th however the structures of leaving certificates have been changed. Especially the number of students on general secondary schools is disproportionately high though this higher proportion of young people do not aspire to get a university degree. While in 196o 9 % of school leavers got the general certificate of aptitude for higher education and 75 % a lower secondary school leaving certificate the number of those with the general certificate of aptitude for higher education increased to 27 % in 1990 and only 38 % left school with a lower secondary school leaving certificate or without any certificate. That is how the heterogenity of the conditions of applicants for starting an apprenticeship has increased.

A reorganization of job characteristics resulted in new training curricula which now make great cognitive demands on the apprentices. At the same time firms make greater demands on apprentices, too. That is why more and more lower secondary school pupils do not meet the requirements of the dual system.

Demanding apprenticeships in some branch of business or in service industries are rather filled with young people who have passed the ´Abitur´. Free capacities are claimed by secondary modern school pupils.

People with a lower secondary school leavers certificate still represent the highest proportion of all apprentices but their number is decreasing steadily. In 1970 only 1 % of the apprentices had a general certificate of aptitude for higher education. In 1992 there were already 17,5 %. Higher and higher demands result in a higher dropout rate. This mainly affects people with a lower secondary school leaver certificate.

4.1.3 Further Training Instead of Training

In many firms a shift from job training to further education is ascertainable. An increasing significance of further and continuing training results in devaluating earlier acquired qualifications, the Erstausbildung. Firms have to rely on qualified workers increasingly but they satisfy their need of qualification more and more by offering further training courses which enable their employes to acquire relevant, suitable, and broadened knowledge and abilities. Firms organize further and continuing training according to their needs with the advantage of enabling their demands in many different ways, spontaniously and open minded.

Here I´d like to congratulate the English to their system of further education as it has (or could have) all the advantages just mentioned and required by German firms nowadays.

4.1.4 Participation in Training of Smaller and Medium Enterprises

At whole craft and service branches which mainly are organized as smaller or medium enterprises increased the number of apprenticeships during the last years and increased the own proportion in training. But the development in this sector is divided.

One part of enterprises gives up to train, because they cannot find right persons. That is mostly the case in occupations with high qualification and/or burdening working conditions.

Another part of enterprises gives up training because the enterprises are not ready to train because no one has got the qualifications necessary to be allowed to train. To get the qualification would tie some capacity needed in other contexts.

A third part of firms was founded by migrants who have qualifications which are not comparable to German qualifications.

4.1.5 Career Change after Completion of Training

While large enterprises train in correspondence to their own personnel requirements small and medium enterprises often train more apprentices as they need. That means that the young people have to change after completion of training not only to another firm of the same branch but normally into another branch. That is a consequence of vocational education policy during quantitative crises like in the 80th and now again. The number of apprenticeship was increased without correspondence to the labour market. Principle is: Better to get a (in the sense of any) training than to get none. Labour statistics verify this dogma because the proportion of unemployed is increasing with decreasing qualification.

This statistic is verifyed by another phenomenon. Would the branch of an enterprise be determined by the qualification of the majority of the employees the Ford motor works at Cologne would be a bakery.

Another reason for the necessity of career change is that there are some occupations which are more popular than others and therefore the rate of apprenticeship is to high for labour market possibilities.

4.1.6 The Dual System and Vocational Education of the Disabled and the Disadvantaged

The Federal Institute for Vocational Education (Bundesinstitut für Berufsbildung, BiBB) claims especially the training of disadvantage to be a strong point of the dual system (PÜTZ 1993). But just at this point the weakness of the dual system is organizational-sociological verifiable.

Proceeding from the idealistic models of machine bureaucracy and professional bureaucracy SKRTIC describes school as machine bureaucracy. His analysis is transferable to vocational schools and to firms. He shows that teachers in schools (or comparable instructors in firms) correspond to the typus of loose connected workers in a machine bureaucracy. One cause for the uncapability of schools (or firms) to reform themselves is the capability to add new subjects or new programms or new contents. New programms can be counseling by specialist as psychologists or social workers or new teachers (trainers) for new subjects. That makes fundamental reform unnecessary and the institution/organization will be protected against dynamic surroundings. This is partically efficient (e.g. SKRTIC 1991 p 167).

In vocational education corresponding to the processes described by SKRTIC the year of vocational preparation and the year of basic vocational education were implemented, programms for the disadvantaged and special institutions for vocational education of the disabled were established.

For disabled and disadvantaged it often is demanded to certify the learning progress by documenting individual work and partial qualifications. The same is demanded for dropouts.

The unions do not accept this demand, because they fear the possibility to undermine collective agreements.

4.2 Additional Reasons of the Crisis

4.2.1 Structural and Organisational Reasons

In the Federal Republic the change from a producing to a service society is making progress. For employment the agricultural sector is nearly without importance. Apprenticeships still are often offered in the producing sector.

The technical changes are faster and cause wider reactions in the working sphere.

The use of new technologies and new working methods like flexible production groups, autonom working groups, and job-rotation involve new profiles for the vocational competence. It is no longer enough to know facts. Employees should know how to learn. The uncertainty about those qualifications which will be necessary in the future requires expertise, supraoccupational qualifications, and key qualifications. New profiles have to be implemented into curricula more immediate, new occupations have to be developed immediately. The process of decision making still lasts to long.

4.2.2 Reasons Concerning to Costs

The costs of vocational education have to be beared by the responsible institution. Therefore the costs of vocational schools are divided between the states and the local authorities. The training in the firms is in the responsibility of the firms. There are different models of calculation. A research project initiated by the

Department of Education and Science in 1994 worked out average net costs of 6.340 DM per year in 1991. Net costs means only cost in direct context of training reduced by return. The differences between the cost in different branches were extremly high. In industry and commerce the cost were about 9.200 DM per apprentice per year, while the cost in craft only were 400 DM per apprentice per year.

Also in this context stands the permanently returning debate about compensation payments into a fond by firms which are not ready to train apprentices.

Costs savings by training because of advantages in personnel planning, in savings by easier recruitment of employees, and less updating training are not discussed in the context of readiness to train. Reason probably is the problem of countability of the savings while the topical profits are sign for the success of the management.

4.2.3 Income Expectations of Youth

Career choices of young people to certain amount depend on the income expectations. During the last decade there was a change which reduced the gap between starting incomes of academic occupations and trades. But still the first income of a university leaver is twice as high and leavers of colleges will get an 1.8 times higher salary then leavers of the dual system.

4.2.4 Reasons Caused by the Educational System and the System of Vocational Education

While other courses enclude the possibility to choose an academic career an apprenticship principally does not open that career. Who wants to study at the university after an apprenticship stands at the same point in his career where he was before. Some states already created possibilities to matriculation standard after vocational training and practice. Nationwide solutions are in developing status since the 90th.

Not in all branches there are enough trained teachers for vocational schools. Especially in the technical branches there is a long lasting lack of vocational school teachers.

Because of shortage in money of the local authorities which are in responsibility for that part financing the equipment of vocational schools often is not at the last technical status.

The teachers give lessons for about 40 years when they once left the university. Therefore regularly further education should be used. There are offers, but there is no obligation for the teachers.

The system depends on cooperation between firms and schools. There is no institutionalized cooperation so it depends on the engagement of the teachers. If there are apprentices of different firms in one classroom there are different problems to be teached and solved.

Firms specialize. So it is no longer possible to train for all in that occupation needed skills. Therefore interplant training in training centres has been developed. Those centres connect practical and theoretical training. The function of vocational schools is endangered.

Training in big firms uses the classroom situation for theoretical training. Again the function of vocational schools is endangered.

The Vocational Training Act (Berufsbildungsgesetz) made the training of the instructors (Ausbildung der Ausbilder = training of the trainers?) obligatory. The realization was unsufficient.

5. Topical Reforms and Conclusion

Changes made by the Federal Government focus on the improvement of the participation of firms in training by apprenticeships. Therefore prospected reasons not to train shall be deminished. Such reasons can be the costs of training, the loss of time and engagement by the qualification of the instructors and the absence of apprentices in the firm. Again and again the government suggests to reduce the lessons at vocational schools drastically, while the Ministers of Education (of the states) argue, that the standards of German apprenticeships is in danger. Other measures are lower wages for apprentices, and the reduction of the qualification of instructors.

Are these measures successful under the aspects of hightening the number of apprenticships and securing the quality of the training.

The problem of missing apprenticeships was mainly solved by increasing the possibilities of training

at schools. Especially in smaller firms the quality of qualifications is uncertain. Apprentices have to work to lower the costs of production.

Apprenticeship in craft and commerce are developing to be "Training on the job".

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Young Working People in Germany During the First Half of the 20th Century[1]

1. Individual aspirations and official employment policy

1.1 The situation of young workers on the employment market

At the end of 1937 only a minority of young workers was still unemployed. In the area of the Labour Exchange of the Rhineland, being responsible also for the Saarland, the number of registered male youth being unemployed and without an apprenticeship decreased from 30,261 at the end of March, 1937, to 7,721 at the end of September, 1937. This moderate figure increased again in December, 1937, because 10,800 young people came back from different employments in official youth schemes and programmes intended to stabilise the German food production. 5,800 came from the obligatory *Landjahr*; 5,000 from the *Landdienst* and *Landhilfe*. Part of these could not be supplied with apprenticeships.[2]

The inadequacies of the employment policy in supplying the participants in the agricultural food production programmes with apprenticeships were plain.[3] In the area of the GAU Düsseldorf (national socialist administrative district) the national socialist officials established courses to supervise and to keep busy those returning young people who could not at once be provided with an apprenticeship.[4] These courses were intended to prepare the young people in the district Ruhr-Niederrhein (lower Rhine) for their respective future occupations and by the tight regimenting of the courses keep away the young people from the pernicious influences of the street.[5]

The following data give evidence of the fact that as early as 1937 the situation on the employment market was considerably less tense than in the preceding years. In the GAU Essen 664 young male unemployed people met 737 vacant apprenticeships and in the GAU Köln-Aachen 1668 young people met 1,007 openings excluding those young people who were employed in the *Landjahr* and *Landdienst*.[6]

Already one year later the demand for apprentices could not be satisfied anymore with the available young school-leavers.[7] The economic upturn had particularly positive results for the GAU Düsseldorf with its diversified metal producing and metal processing branches of industry. As early as 1937 there were 321 vacant apprenticeships per 100 young people.[8]

Skilled or semi-skilled workers had vanished completely from the unemployment statistics since the middle of 1938. These workers were needed as a result of the economic upturn and in particular an increased arms production. Especially in the metal processing and chemical industries, there were next to no unemployed workers.[9] Because of the "...*Wehrmacht* orders coming in" the companies needed "... every trained worker".[10]

Compared to the figures of 1929, the output of the metal processing industry had doubled as early as 1939.[11] From this time on a continuously increasing demand for workers was characteristic of the employment situation.[12] As early as at the beginning of 1939 the national socialist planning officials estimated the number of additional workers needed to be at least one million.[13] Considering this situation, it is not astonishing that young people became much sought-after employees.[14] In Cologne in 1940/41 the bosses urged young employees not to attend vocational school. If the district courts imposed a fine on these young people, the money was returned to them in some cases by the factory owners.[15]

In 1939, the need for workers in Duisburg had reached an extent that made the local *Gestapo* office intervene against a preventive detention ordered by the national *Gestapo* office in Berlin. Because of the great need for workers in Duisburg the local *Gestapo* official argued that "the preventive detention (of the young people concerned) was likely to cause a very great strain in the face of the great need for workers".[16] The *Gestapo* office in Düsseldorf shared the objection of their branch official. As a result the national *Gestapo* office in Berlin lifted its order.[17]

In 1942 the *Reichsjugendführung* (leadership of the national socialist youth organisation) stated that young workers were treated generally "less severe, ... because one was depending on them ...".[18] Through various employment regulations it was attempted to keep the demand for workers within certain limits. One of these initiatives consisted in shortening the duration of apprenticeships from four to three years. In other cases young people were released from vocational school "because of the war", before they had finished it.[19]

After the beginning of the war more and more conflicts of interest occurred between the *Wehrmacht* on the one hand and the representatives of industry and commerce on the other. Both sides regarded their cause as having absolute priority. While the *Wehrmacht* requested young workers after medical examination for military service, the business firms and concerns claimed them as labour power for themselves. The 20-year-old grinder Hans said at the *Gestapo* in November, 1940, according to the interrogation record, that he had been medically examined and categorized as fit for military service (at the highest possible level *Ers.Res.I*) in 1939 and had then repeatedly gone to see the factory manager in order to be given leave for military service. But his employer had not given his consent.[20]

Conversely, young people lost their apprenticeships, if their bosses were drafted for service in the *Wehrmacht*.[21] By "shutting down" and "dragnetting" of factories the Labour Exchange offices tried to recruit a work-force to be "flexibly used" for different purposes and to close the gaps which were generated as a consequence of the high conscription rate of the *Wehrmacht*.[22]

Within 12 days after the beginning of the war in September, 1939, 640,000 workers were called up for military service. In March, 1940, the *Wehrmacht* called for 750,000 men, although the arms production industry needed an additional 500,000 employees in order to be able to carry out orders of importance for the German war policy.[23]

In 1941 already 16.9 percent of all German industrial workers had been drafted for military service. But for workers in the mining industry the same statistics shows a considerably lower percentage of 11 percent.[24] This explains the higher percentage of young people among the *Kittelbach Pirates*, a name certain subcultural cliques living in the lower Rhine mining area gave themselves in this region. These were frequently employed in mining, and thus their military service in the *Wehrmacht* was for the time being deferred.

That the young *Kittelbach Pirates* had the status as adults at a very early stage in their lives, could be glimpsed from their criticizing and insulting the pupils of intermediate and upper secondary school who were members of the *Hitlerjugend* (Nazi youth organisation): These were said not to know how to spend their time during holidays and to be reluctant in actively looking for work.[25] As an unskilled worker a young person had much more money than an apprentice in one of the various occupations.[26] A young worker easily earned two or three times more in 1936/37 than an apprentice working with a toolmaker or carpenter.[27]

Especially for the *Kittelbach Pirates* the "fast buck" was often more important than to acquire specific skills. In addition, it was easier to show off in front of young females with some money in the pocket. These youth frequently worked because of the predominance of metal producing and processing industries in the GAU Düsseldorf in various occupations of these branches of production. Every tenth questioned person was a metalworker. Obviously this occupation was held by the young people much more often than by their fathers.[28]

As early as 1937 employment politicians recorded a 'huge influx' of male young people into the occupations of the metal processing industries. In the district of the Labour Exchange for the Rhine region 36,750 young people applied for an apprenticeship in the metal industry. But they just met 14,550

apprenticeships being offered by employers.[29] In 1939/40 for 26,400 apprenticeships in the metal industries there were 53,800 young applicants.[30] A high official of the *Reichsanstalt für Arbeitsvermittlung und Jugendführung* in Berlin (*Institution for employment and youth policy*) stated in 1939, that among the young people "... the interest concentrated more and more on a small number of occupations, especially on the occupations of panel beater, aircraft mechanic, precision engineer, office clerk and a few others. Other occupations, no less vital and of no lesser importance for the four-year plan, like farmer, miner or in some districts also construction worker, were avoided by the youth."[31] Leading functionaries like *Oberregierungsrat* (high-ranking civil servant) Stäbler of the Labour Exchange for the Rhine region found that in 1940 the occupation of panel beater continued to be very much applied for by the youth in the Rhine region.[32]

Also at the *Hitlerjugend* those youth were sought after who had qualifications as panel beaters.[33] Already during the Weimar Republic it had been established through empirical research in Düsseldorf, that besides apprenticeships in the metal industries those in the automobile industry enjoyed an especially high reputation among young people.[34] Interviews with pupils attending vocational school in the Westfalian industrial area at the beginning of the 1930s revealed that the young people rather wished to have become panel beater instead of the occupations they actually had.[35] In spite of the otherwise epochal changes in 1945 young people were still strongly attracted to this ocuupation after the war. In May, 1947, interviews with male participants in a youth camp at the Blue Lake in Ratingen showed that the youth strove nearly exclusively for an apprenticeship as a panel beater.[36]

In comparison, the miner's job had a completely different image among the young people. Already before the coming to power of the national socialists the youth had often tried to avoid work in the coal mines and the loss of prestige which went with it. They were grateful for any help by their families which prevented them from ending up in a "miner's career".[37] In the Third REICH this kind of negative attitude remained unchanged. Employment functionaries even spoke about a "flight from mining".[38] Only 89 young people out of 3,400 which left lower secondary schools in Bochum at Easter, 1937 - that is not more than 2,6 percent - decided in favour of this occupation.

In 1937/38 the newly recruited miners still covered the needs of the coal mines in the Ruhr area by 73.9 per cent. This figure decreased in 1938/39 to a poor 34 per cent.[39] Employment politicians stated, that in contrast with the situation in the Saarland in the Ruhr area "... parents as well as the young people" showed "a strong reserve in respect to this profession".[40]

The demand for young miners in the Rhineland on the other hand could still be covered by the Labour Exchange offices in 1937/38.[41] A social democrat from Rhineland-Westfalia reported in 1939: 'The regime is anxious about the lack of young blood, because whereas there was a tradition in earlier days that the sons of miners became miners as well, now the youth strive for different occupations.'[42]

In spring, 1941, the president of the regional Labour Exchange of the Rhineland interpreted the young people's antipathies as resulting from "... a certain mental attidude in respect to mining, for which it was hard to give reasons and which could be described really as a mining psychosis ...".[43] In the district of the regional Labour Exchange of the Rhineland only 835 persons out of the total of male young school-leavers as well as of the older clients of the year under review (1939/40) were willing to become miners. Thus, the need for young miners could just be covered at a level of 15 per cent. 53,800 persons on the other hand applied for an apprenticeship in the occupations of the metal processing industries.[44]

One of the national socialist specialists on labour market problems, van der Wyenburgh, stated in 1940 that employers had no adequate choice anymore among the youth who were prepared to start as miners. These volunteers were in fact now drawn from a group of pupils visiting schools for handicapped children and school-leavers who had dropped out early somewhere in the lower secondary school.[45]

In order to improve the attractiveness of the miner's job, in 1940 an apprenticeship in mining was officially approved as being an education for skilled work.[46] In the Westfalian industrial area there were

numerous advertising campaigns in favour of mining in the local press.[47] However, the effort and the new measures introduced in the attempt to give more value and prestige to the occupation of miner were of no avail. In the following years the mining companies and the regional Labour Exchange offices continued reporting strong reserve among the young people. The regional Labour Exchange for Westfalia suggested that school education ought to avoid painting the miner's life in dark colours, because the question of "... winning sufficient numbers of new workers for the mining industry was vital, not only for the branch of industry itself and for the whole economy but for nation and state in general. ... The reason for the decreasing efficiency of efforts directed at channeling young people into certain occupations may be seen above all in the young people's and their parents' strong reserve with regard to the occupation of miner."[48] We do not know whether teachers took up the suggestion of the regional Labour Exchange for Westfalia. If this was the case, then the attempt was obviously not successful: The decree on compulsory mining "for all male Germans from 18 to 35 years...", insofar as the persons concerned were physically fit, which was issued by the British authorities during the Allied occupation[49], met with strong resistance among the young working people in the Rhenish-Westfalian industrial area, among the regional youth organisations and also among the catholic youth and the *Junge Union* (youth organisation of the Christian Democrats CDU).[50]

In spite of the privileges to be expected, the traditional aversions of the young people remained unchanged. Thus, even after May, 1945, many young workers resisted compulsory mining by refusing to work and by intentionally going slow.

Other "unpopular occupations" were those in farming and construction as well as some trades of craftsmen. The construction jobs had "always had few young workers in the Rhineland ...".[51] This attidude comes as a surprise because masons and carpenters were to be found among the best paid tradesmen and skilled workers.[52]

The occupations of moulder and caster in the metal producing and metal processing branches of industry had an equally poor reputation. As early as 1923/24 both occupations were reckoned among young people to be very unattractive.[53] Especially the young moulder was thought by people of the same age to be "rough".[54] The negative image of the occupation of caster lived on well into the 1930s, for which the numerous call-ups of persons for essential service in this job give evidence.

The jobs chosen by young people not only provide information about the industrial milieu to which the young people belonged. They indicate in addition a particular system of values in respect to the different occupations existing in the youth subculture studied, which is to be understood as being specific for a particular social milieu.

Only little was left of the reputation once enjoyed by those traditional trades which had been widely practised before the era of advanced industrialisation. Already the young people in the 1920s evidently tended to have a negative view of occupations like baker, tailor, shoemaker, saddler/ upholsterer, hairdresser, plumber, butcher and paper-hanger.[55] Thus it is clear that in the course of time the profiles and the attractiveness of certain occupations underwent remarkable changes.

1.2 Employment of young people under conditions of intensified arms production

It was characteristic of the situation of young workers at the end of the thirties that there was a steadily increasing number of restrictions in the individual choice of occupations as well as call-ups for essential services. The necessary rise in arms production was intended to be reached by new piece rates, higher wages and extended working-time.

It is true that according to the *Gesetz über Kinderarbeit und über die Arbeitzseit von jugendlichen* (*Law on child labour and the working hours of young people*), adopted April 30, 1938, it was not allowed to let young people under 18 years work in night shifts or alternating shifts. However, in practice the law was undermined by special orders and regulations. It was, for example, possible to hire over 16-year old young people like before for a 54-hour week.[56]

On September 1, 1939, the order limitating the working-time of male employees and workers was suspended by the *Verordnung zur Abänderung und Ergänzung von Vorschriften auf dem Gebiete des Arbeitsrechts* (Decree on the amendement and supplementing of regulations in the field of industrial law).

Another decree of September 11, 1939, modified the regulations which were until then in force with regard to the working-time of young workers. From now on a ten-hour working-day was allowed. Excluding the times at vocational school the maximum working-time of young workers older than 16 years was even 56 hours per week.[57] Already before this it was possible under a special order of December 23, 1938, to employ young workers older than 16 years in the metal producing industry in weekly alternating shifts for nine hours per day and up to a maximum of 54 hours per week.[58]

A young tool grinder from Duisburg reported according to the interrogation record, that his working day at the *Demag* started in the morning at 6h15 and ended every day in the evening at 6h15.[59] Many young workers mostly just had every third or fourth weekend off.[60] Under these conditions the weekend trips of the informal youth groups were of great importance for different experience and regeneration.

Young people tried to evade the increasing demands put on them and the call-ups by changing their places of work. In this they did profit from the competition between the concerns and companies in wooing the insufficient number of workers being available on the labour market.

The willingness to change jobs varied according to employment status and industrial branch. The metal producing industry was spared from this movement of personnel fluctuation for the most part, but not the construction industry.[61] Semi-skilled blast furnace workers and steel workers could hardly get equal employment conditions through changing the company. Workers skilled in machine engineering as part of the metal processing industries on the other hand were very much sought after.[62] But skilled workers had the tendency to remain attached to their factory, while male unskilled workers tended most to change jobs.[63] The higher income made some youth even change to the unpopular mining industry. The 17-year old later miner and member of a clique of young people, Karl S., changed from the iron and steel works *Gutehoffnung* where he had been employed as an errand boy, to the coal mine *Konkordia*, because he just wanted to earn more money.[64]

For those young people who worked in the chemical plants of the *Ig Farben* and the *Ruhrchemie* the demand for workers made it possible to draw away from the dangers for their health at their respective workplaces and find themselves another employment.[65]

In order to reduce and possibly prevent a change of employment among skilled metal workers, the national socialist employment politicians introduced a number of new restrictive regulations. Since the *Anordnung über den Arbeitsplatzwechsel von gelernten Metallarbeitern* (*Decree on employment changes of skilled metal workers*), issued December 29, 1934, a skilled metal worker had needed the approval of the respective Labour Exchange office, if the job newly applied for and the place of residence were not located in the same district. But in the metal industries a change of employment inside the district of an employment office was possible, until the order of the president of the Reichsanstalt für *Arbeitsvermittlung und Arbeitslosenversicherung* (*Highest national socialist institution for employment and social insurance*) of February 11, 1937, was issued. From this date on workers needed a written permission from the responsible Labour Exchange for any change of jobs even inside the district. The same was decreed for the construction industry fifteen months later.[66]

Before that, on November 5, 1935, the *Gesetz über Arbeitsvermittlung, Berufsberatung und Lehrstellenvermittlung* (*Law on employment exchange, careers guidance and placing of apprentices*) had been passed, which assigned to the *Reichsanstalt für Arbeitsvermittlung und Arbeitslosenversicherung* by law the monopoly in the field of dealing with employment problems.[67]

The *Gesetz über die Einführung des Arbeitsbuches* (*Law on the introduction of a compulsory worker's log*), passed in February, 1935, had been put into practice as early as September, 1936, for the most important occupations, where workers were really needed, while it was completely applied to all occupations around spring, 1939, with the handing out of 22 million worker's logs.[68] When starting an employment, the worker or employee had immediately to hand over for safekeeping the worker's log to the factory manager, and in case of unemployment he/she had to present it to the Labour Exchange without special request. The worker's log was intended regulate the distribution of workers within the German economy in an appropriate way.[69]

Finally the *Durchführungsverordnung zur Dienstpflichtverordnung* (*Order regulating*

implementation of the decree on call-ups), issued March, 1939, reduced the possibilities of free choice of employment even further and did not allow any change of employment without approval of the responsible Labour Exchange office.[70] The hoped for success of these measures apparently did not come about, as on September, 1, another new regulation was issued: the *Verordnung über die Beschränkung des Arbeitsplatzwechsels* (*Decree on the restriction of employment change*). It was designed to suppress intiatives of the workers even more effectively.[71] A factory which hired an apprentice needed the approval of the employment office. The distribution of the apprentices was carried out from this date on by means of a "numerical fixing ... for the different professions in order to limitate the ... excessive influx of young people in the popular professions".[72]

The constant flow of decrees was nevertheless not sufficient for limiting the employment changes of the young people very much. For this the examples of many clique members give evidence in the years 1937 to 1941. The national socialist employment politicians therefore introduced the call-ups as a further restrictive measure, beginning in June, 1938, with a partial call-up. Following this decree, a German worker was forced for a limited time "... to do service at a working place assigned to him".[73]

In February, 1939, an additional order extended the legal possibility for call-ups to unlimited time.[74] Half a year later even school children from 10 to 16 years could be called-up for agricultural work in reference to the *Verordnung über den Einsatz der älteren Schuljugend* (*Decree on the employment of the elder school children*).[75]

What then was the internal differentiation of the production milieu of sub-cultural youth in the material under review? Out of 1,441 young clique members nearly a third (if also the young miners are added) underwent vocational training at the time of the *Gestapo* interrogations. Every second (50.6 per cent) out of a total of 1,441 persons had an occupation identified as skilled work by industry and trade. 28.6 per cent were unskilled and 6.1 percent semi-skilled workers.

The 313 different occupational denominations appearing in the interrogation records are widely spread over the various branches of the economy. However, certain occupations are named especially frequently. To these belong in particular the generally unpopular occupation of miner but also the occupations of metalworker (5.4 per cent) and machine fitter (3.5 per cent) which enjoyed a high reputation.[76] Also named were the occupation of lathe operator (4.9 percent) and that of apprentice for being office clerk (4.0 per cent). Every sixth person questioned (18.9 per cent) spoke explicitly of being worker or unskilled worker.[77]

The frequent naming of the occupations of metalworker and lathe operator reflect the strong position of the metal producing and processing industries in the region of Düsseldorf. But it is surprising how much the choice of occupations had changed in a comparison of the generations. While only 2.9 per cent of the questioned persons were miners, every tenth father of persons questioned worked in this field.[78] In their attempt to give a higher value to the miner's job, the national socialist employment politicians had visibly failed.

1.3 Refusal of work on the side of the clique members - staying away from work and working slow intentionally

Many clique members reacted by certain forms of "refusal of work" to call-ups for unpopular jobs and a working week sometimes ranging from 60 up to 72 hours.[79] The offence of breaking the contract of employment "spread during the years of war like an epidemic, so to speak, among the youth".[80]

Many young people refused the "well-ordered rhythm of the war economy".[81] The 16-year old unskilled worker Bernhard K. declared according to the *Gestapo* interrogation record: "Later I came to the coal-mine *Walsum*. I did not like it there, and therefore I stayed away from work arbitrarily for part of the time. Once, e. g., I stood away from work for 17 weeks."[82] The 15-year old *Edelweiss Pirate* (Another name for the clique members) Heinrich H. from Krefeld who was in an apprenticeship as smith at the *Deutsche Edelstahlwerke* (in Krefeld) "idled around" because the Labour Exchange did not endorse his employment application.[83]

The *Daimler-Benz A.G.*, Düsseldorf, denounced an *Edelweiss Pirate* to the *Gestapo*: He was described

as ”a great idler”, ”not appearing for much of the working week”, ”arriving too late very often”, being in fact ”sluggish at work”, so that he could ”indeed be described as work shy. No other boy had given them ”... so much trouble up to now...”.[84] Other *Edelweiss Pirate*s justified their ”idling around” with wages being too low, at least in their opinion.[85]

Furthermore, it was tried often to avoid unwanted employments by volunteering for the *Wehrmacht*.[86] This way of refusing work took up an extent among the youth which made the *Gauarbeitsgemeinschaft* (*Gau association*) Ruhr/Lower Rhine suggest in 1942 that ”... the military recruitment offices should deliver the acceptance notice in the case of volunteers, if possible, directly before the actual conscription and should include in the text of the acceptance notice that the acceptance would be revoked, if it was found that obligations at the level of employment would be neglected”.[87]

In the eyes of the Nazi inspectors young people who had ”... broken their contracts of employment” and ”idlers” were not only ”morally in danger” but already ”delinquent”. A court in Essen described the youth Manfred K. from Essen as ”delinquent” because he had ”no understanding that these days everybody had to do his duty at his place of work”.[88]

Under Allied occupation this argument was retained: ”Refusal of work” would favour ”among minors a tendency towards other forms of delinquency and criminal offence ...”.[89] In 1949 Rudolf Sieverts from Hamburg, professor for criminal law and for law relating to young people, depicted a true horror scenario of the future. He did this for the case of decreasing efforts in ”...fighting the more and more widespread phenomenon of unwillingness to work which was becoming a habit of many young people, wandering between the occupation zones and earning their living either on the black market, or by all sorts of criminal behaviour, or by prostitution”. In this case, he said, there was a danger ”... that out of these work shy vagabonds organised gangsterism would develop in ways until then not known in Europe”.[90]

It is not surprising that in this atmosphere the prosecution of so-called young ”idlers” was sometimes no less rigid under Allied occupation than under the Nazi regime. The court for the district of Wuppertal delivered a 5-month prison-sentence to a young woman in 1947 with reference to the decree No. 54 of the military government, because of ”refusal of work”. At the instigation of the youth welfare department the young woman ”... had been called-up by the Labour Exchange office for working in a factory as unskilled worker. It was intended to prevent her from idling around and mixing with soldiers of the Allied occupation forces. At the beginning of 1947 she was given a medical certificate for several weeks because of illness. However, after recovery she did not take up work again and always used feeble excuses.” [91] This then led to the sentence mentioned above.

Very soon the refusal of work by young people threatened to take on such dimensions in the perspective of the responsible institutions that they felt forced to intervene. To the Labour Exchange of Wuppertal it seemed advisable to point repeatedly and explicitly to the official policies and measures taken against those ”refusing work” and ”idling around”. The Labour Exchange announced it would ”... take effective measures in all cases of unauthorised staying away from work”. It was seen as unacceptable ”... that these work shy elements lived at the expense of the working population”. More than ever it would now be ”... the duty of all to achieve the highest possible production rate”.[92]

A person being called-up for essential service and refusing ”... to do the work assigned to him ...” could be excluded from the food apportionment. A person not obeying an order to work had ”... to be prepared for severe punishment from the responsible military government court” according to article II, clause 21 of the decree No. 1.[93]

The local youth welfare departments tried to keep young people out of possible sanctions ordered by the military courts.[94] In order to achieve this they proposed to order a temporary transfer to homes for bettering youth ”in cases of persistent idling around”. Thus it would be possible for the Labour Exchange offices ”... to prevent the reporting of young people to the military court”.

Nevertheless, the Labour Exchange offices never were in doubt about the necessity of sanctioning the unwillingness of young people to work.

Notes

1 This article is based on my dissertation Wilde Jugend. Lebenswelt großstädtischer Jugendlicher zwischen Weltwirtschaftskrise, Nationalsozialismus und Währungsreform (= Düsseldorfer Schriften zur Neueren Landesgeschichte und zur Geschichte Nordrhein-Westfalens 42) (1996). For a closer look at the sources the reader is referred to that publication. For help in translating the present material I would like to thank Bruno Kirchhoff.

2 cf. Walter Stets, Der Arbeitseinsatz der jugendlichen Schulentlassenen im Rheinland, Die Rheinprovinz, 13 (1937), 825-828, 826.

3 cf. interrogation record Paul N., Gladbeck (September 1937), Nordrheinwestfälisches Hauptstaatsarchiv Düsseldorf (NWHStAD), Bestand Gestapo-Personenakten (BW 58), Bd. 47601.

4 cf. W.K. (Gauamt für Volkswohlfahrt), Wert und Zielsetzung der Betreuungs- und Beschäfti gungskurse für erwerbslose Jugendliche im Gaubereich Düsseldorf, Die Rheinprovinz 12 (1936), 194-196, 196.

5 Gerd Ohletz, Betreuungskurse jugendlicher Erwerbsloser, Die Rheinprovinz 13 (1937), 262-263, 262.

6 cf. Stets (1937), 825.

7 cf. Walter Stets, Nachwuchspolitik in Krieg und Frieden, Die Rheinprovinz 16 (1940), 44-48, 46.

8 cf. Stets (1937), 827.

9 Rüdiger Hachtmann, Industriearbeit im "Dritten Reich". Untersuchungen zu den Lohn- und Arbeitsbedingungen in Deutschland 1933-1945 (= Kritische Studien zur Geschichtswissenschaft 82) (1989), 38.

10 Schreiben der Duisburger Firma Heinrich van Lackum an das Arbeitsamt Essen (11. Oktober 1939), NWHStAD, RW 58/68205, Bl. 12.

11 Hachtmann (1989), 27.

12 cf. Martin Rüther, Arbeiterschaft in Köln 1928-1945 (= Kölner Schriften zu Geschichte und Kultur 16) (1990), 227.

13 Hachtmann (1989), 46. See also Timothy W. Mason, Arbeiteropposition im nationalsozialistischen Deutschland, in: Detlev Peukert and Jürgen Reulecke (Ed.), Die Reihen fast geschlossen, Beiträge zur Geschichte des Alltags unterm Nationalsozialismus (1981), 293-313, 296f; also id., Sozialpolitik im Dritten Reich, Arbeiterklasse und Volksgemeinschaft, (21978), 208ff., 221ff.

14 Cliquen- und Bandenbildung unter Jugendlichen, Denkschrift der Reichsjugendführung (September 1942), Bundesarchiv Koblenz (BAK), Bestand Reichsjustizministerium (R 22), 1177, Bl. 325-395, Bl. 332.

15 Bericht des Kölner Oberlandesgerichtspräsidenten an das Reichsjustizministerium (31. August 1941), BAK, R 22/ 3374, Bl. 51.

16 Bericht der Gestapoaußendienststelle Duisburg an die Stapostelle Düsseldorf (2. Juni 1939), NWHStAD, RW 58/ 48457, Bl. 119.

17 cf. Bericht der Stapostelle Düsseldorf an das Geheime Staatspolizeiamt Berlin (15. Juni 1939), NWHStAD, RW 58/ 48457, Bl. 16; Schreiben des Geheimen Staatspolizeiamtes Berlin an die Stapostelle Düsseldorf (2. Juli 1939), NWHStAD, RW 58/32943, Bl. 15.

18 Cliquen- und Bandenbildung unter Jugendlichen, Denkschrift der Reichsjugendführung (September 1942), BAK, R 22/1177, Bl. 325-395, Bl. 332. See also Hans Stahlschmidt, Schutzpolizei in Düsseldorf. Organisation, Einsatz und Verwendung - Eine Chronik über mehr als ein halbes Jahrhundert, in: Hans Lisken (Ed.), Landeshauptstadt Düsseldorf und die Polizei. 50 Jahre Polizeipräsidium Jürgensplatz (1983), 106.

19 cf. NWHStAD, Bestand Sondergericht Düsseldorf (Rep. 114) Bd. 8529, Bl. 182.

20 Interrogation record Hans F., Essen (November 1940), NWHStAD, RW 58/43761, Bl. 15. See also NWHStAD, RW 58/ 68508, Bl. 48; interrogation record Josef G., Düsseldorf (1941), NWHStAD, RW 58/63208, Bl. 11.

21 Interrogation record H., Düsseldorf (1942), NWHStAD, RW 58/29376, Bl. 40.

22 cf. Wolfgang Franz Werner, "Bleib übrig!, Deutsche Arbeiter in der nationalsozialistischen Kriegswirtschaft (= Düsseldorfer Schriften zur Neueren Landesgeschichte und zur Geschichte Nordrhein-Westfalens 9) (1983), 81ff.

23 cf. Mason (1978), 225.

24 cf. Kräftebilanz der deutschen Industrie, BAK, R 12 I/79 according to Ulrich Herbert, Arbeiterschaft im "Dritten Reich", Zwischenbilanz und offene Fragen, Geschichte und Gesellschaft 15 (1989), 320-360, note 58, 353.

25 Oberhausener Kittelbachpiraten an die Hitlerjugend in Oberhausen (undated [1941]), NWHStAD, RW 58/9213, Bl. 21.

26 cf. Gustav Vogel, Das Milieu des Rheinisch-Westfälischen Industriegebiets im Hinblick auf seine Kriminalität, Diss. med. (1938), 53.

27 cf. NWHStAD, Bestand Staatsanwaltschaft beim Landgericht Düsseldorf (Rep. 17), Bd. 397.

28 The job of metalworker obtained in the group of the fathers only 4.4 per cent of the values.

29 cf. Stets (1937), 826.; cf. Michael Zimmermann, Ausbruchshoffnung. Junge Bergleute in den dreißiger Jahren, in: Lutz Niethammer (Ed.), "Die Jahre weiß man nicht, wo man die heute hinsetzen soll". Faschismuserfahrungen im Ruhrgebiet (= Lebensgeschichte und Sozialkultur im Ruhrgebiet 1930-1960, vol. 2) (1983), 102.

30 cf. F. Stäbler, Die "Freiheit der Berufswahl", staatspolitisch gesehen, Die Rheinprovinz 17 (1941), 69-77, 70.

31 Walter Stets, Planmäßige Nachwuchslenkung und Jugendführung, Die Rheinprovinz 15 (1939), 173-175, 173; cf. also Hans Langenberg, Untersuchung über die pädagogischen Grundlagen des Düsseldorfer Erziehungsversuches und den Lebenskreis der Jugendlichen, in: Verwaltungsausschuß des öffentlichen Arbeitsnachweises Düsseldorf (Ed.), Erwerbslose Großstadtjugend. Ein Düsseldorfer Erziehungsversuch an erwerbslosen Jugendlichen (1925), 69; Stäbler (1941), 71; Walter Blumenfeld, Jugend als Konfliktsituation, Jugendpsychologie mit Berücksichtigung des jüdischen Kindes (= Passauer Schriften zur Psychologiegeschichte 8), (1988), 92.

32 cf. F. Stäbler, Die Berufsnachwuchslenkung im Kriege, Die Rheinprovinz 16 (1940), 41-43, 43; interview Walter T. (born 1922), Wuppertal (6. Dezember 1989).

33 cf. Ewald Schürmann, Dortmund - nordwärts wird erzählt, in: Stadt Dortmund - Kulturbüro (Ed.), Nordstadtbilder. Stadterneuerung und künstlerische Medien (1989), 46.

34 Langenberg (1925), 63.

35 cf. Hermann Wagener, Der jugendliche Industriearbeiter und die Industriefamilie (= Vierteljahrsschrift für wissenschaftliche Pädagogik A/9) (1931), 60.

36 cf. Rheinische Post 2 (1947) (16. Juli 1947).

37 cf. Heinrich Többen, Die Jugendverwahrlosung und ihre Bekämpfung (1922), 161; Wagener (1931), 61f.

38 K. Bax, Der deutsche Bergmann im Wandel der Geschichte, seine Stellung in der Gegenwart und die Frage seines Berufsnachwuchses, Zeitschrift für das Berg- und Salinenwesen im Deutschen Reich 88 (1940), 145-195, 185f; Stäbler/Bäumer, Die Entwicklung des Berufseinsatzes der Jugendlichen im Rheinland in der Zeit von 1933 bis heute, Die Rheinprovinz 15 (1939), 168-172, 171; Paul Seiler, Berufsziel Bergmann, Das junge Deutschland 36 (1942), 306-309.

39 cf. Der deutsche Bergbau ohne Jugend, Das junge Deutschland 31 (1937), 456-461, 547. See also Barbara Dorn and Michael Zimmermann, Bewährungsprobe, Herne und Wanne-Eickel 1933-45, Alltag, Widerstand, Verfolgung unter dem Nationalsozialismus (1987), 146; cf. Ullrich, Aufstiegsmöglichkeiten im Bergbau, NS-Frauenwarte 10 (1941/42), 197; Zimmermann (1983), 125.

40 Stets (1937), 827.

41 Stäbler/Bäumer, 171.

42 Deutschland-Berichte der Sozialdemokratischen Partei Deutschlands (Sopade) 6 (1939), (61982), 737.

43 Stadtarchiv (StA) Gladbeck, C 643.

44 cf. Stäbler (1941), 70.

45 cf. van der Wyenburgh 1940, cited according to Zimmermann (1983), 107; interview with Bernhard Röppel, Bottrop, Beitrag im Rahmen des Schülerwettbewerbs Deutsche Geschichte um den Preis des Bundespräsidenten, Wettbewerb "Alltag im Nationalsozialismus. Die Kriegsjahre in Deutschland" (1983), 7; Anselm Faust (Ed.), Otto Faust, Vom Bremsjungen zum Betriebsdirektor, Ein Leben im Ruhrbergbau (1867-1914) (1989), 75.

46 cf. H. Wetzel, Erfahrungen bei der planmäßigen praktischen Ausbildung des bergmännischen Nachwuchses in dem Untertage-Lehrrevier Amalia, Glückauf 77 (1941), 128-130; Friedrich Kröker, Die praktische Ausbildung der Berglehrlinge - Versuch der Aufstellung eines Grundlehrganges, Glückauf 78 (1942), 90-95; Gerhard Lehmann, Der Berglehrling und seine Ausbildung, Glückauf 79 (1943), 424-427.

47 cf. Dorn/Zimmermann (1987), 146; see also the film "Ein Bergmann will ich werden" (anonymous), Glückauf 78 (1942), 705.

48 Bericht des Präsidenten des Landesarbeitsamtes Westfalen in Dortmund an die Regierungspräsidenten in Arnsberg und Münster über die Behandlung des Bergmannsberufes im Schulunterricht (4. April 1941), StA Gladbeck, C 643. See also Schreiben des Beauftragten des Reichstreuhänders der Arbeit für das Wirtschaftsgebiet Westfalen-Niederrhein an den Reichstreuhänder der Arbeit, Sachgebiet II, Essen (3. Juli 1941), NWHStAD, RW 58/26003, Bl. 11; interrogation record Alfred R., Essen (Oktober 1941), NWHStAD, RW 58/59120, Bl. 17.

49 Mensch und Behörde müssen sich verstehen. Ein Gespräch mit dem Leiter des Arbeitsamtes Düsseldorf, Rheinische Post 1 (1946), 61 (28. September 1946).

50 cf. Katholische Jugend gegen Bergbaupflicht (anonymous), Rheinische Post 1 (1946), 81 (7. Dezember 1946); Jugend protestiert gegen den Zwang (anonymous), Rheinische Post 2 (1947), 6 (22. Januar 1947). See also Heinrich Telaak, Das Nachwuchsproblem im Steinkohlenbergbau der Montan-Union, Diss. oek. (1954).

51 Stets (1937), 827.

52 cf. Langenberg (1925), 69.

53 cf. ibid., 63; cf. Hermine Albers, Die soziale Lage der Jugend und die Aufgaben und Probleme der öffentlichen Jugendpflege, Jahrbuch der Jugendarbeit 1 (1949), 47-57, 54.

54 Günther Dehn, Die männliche proletarische Großstadtjugend, in: Adolf Busemann (Ed.), Handbuch der pädagogischen Milieukunde (1932), 232; see also Stets (1937), 826.

55 cf. Langenberg (1925), 40; Dehn (1932), 232; interview Walter T., Wuppertal; Stets (1937), 827. Cf. SOPADE-Berichte 5 (1938), 546.; cf. interrogation record Emanuel T., Essen, NWHStAD, RW58/5083, Bl. 14.

56 cf. Erika Müller, Die neuen Jugendschutzbestimmungen, Die Rheinprovinz 14 (1938), 394-398, 397; Matthias Frese, Betriebspolitik im "Dritten Reich", Deutsche Arbeitsfront, Unternehmer und Staatsbürokratie in der westdeutschen Großindustrie 1933-1939 (= Forschungen zur Regionalgeschichte 2) (1991), 361ff.

57 cf. Wolfgang Franz Werner, Bleib übrig! Deutsche Arbeiter in der nationalsozialistischen Kriegswirtschaft (= Düsseldorfer Schriften zur Neueren Landesgeschichte und zur Geschichte Nordrhein-Westfalen 9) (1983), 41f.

58 cf. Hisashi Yano, Hüttenarbeiter im Dritten Reich. Die Betriebsverhältnisse und soziale Lage bei der Gutehoffnungshütte Aktienverein und der Fried. Krupp AG 1936 bis 1939 (= Zeitschrift für Unternehmensgeschichte 34) (1986), 77.

59 cf. NWHStAD, RW 58/57120.

60 cf. interrogation record Johann T., Gladbeck (November 1937), NWHStAD, RW 58/10740, Bl. 55; interrogation record Rudolf J., Düsseldorf (September 1940), NWHStAD, RW 58/13128, Bl. 7, interrogation record Josef G., Düsseldorf (1941), NWHStAD, RW 58/63028, Bl. 12.

61 Yano, 108.

62 cf. Rüdiger Hachtmann, Die Arbeiter der Gutehoffnungshütte 1933 bis 1939, Klaus Tenfelde (Ed.), Arbeiter im 20. Jahrhundert (= Industrielle Welt, Schriftenreihe für moderne Sozialgeschichte 51) (1991), 105-141, 120f.

63 cf. Rüdiger Hachtmann, Arbeitsmarkt und Arbeitszeit in der deutschen Industrie 1929-1939, Archiv für Sozialgeschichte XXVII (1987), 177-227.

64 Interrogation record Karl. S., Oberhausen (November 1938), NWHStAD, RW 58/25820, Bl. 7; cf. also interrogation record Peter P., Oberhausen (Juli 1941), NWHStAD, RW 58/9213, Bl. 133; interrogation record Otto S., Wuppertal (September 1939), NWHStAD, RW 58/72029, Bl. 2; interrogation record Georg R.,Oberhausen, NWHStAD, RW 58/47520, Bl. 8.

65 cf. interrogation record Kurt J., Wuppertal (1940), NWHStAD, RW 58/9457, Bl. 25; interrogation record Peter P., Oberhausen (Juli 1941), NWHStAD, RW 58/9213, Bl. 133.

66 cf. Reichsarbeitsblatt (RABl) I (1935), 12; Hachtmann (1989), 44.

67 cf. Reichgesetzblatt (RGBl), I (1935), 1281.

68 cf. ibid., 311.

69 Kühne-Erfurt (Revisor), Das Arbeitsbuch und seine Bedeutung für den Arbeitseinsatz, in: W. Sommer (Ed.), Die Praxis des Arbeitsamtes, Eine Gemeinschaftsarbeit von Angehörigen der Reichsanstalt für Arbeitsvermittlung und Arbeitslosenversicherung (1939), 45-56; 49 and 53.

70 cf. RGBl. (1939), I, 444. See also Andreas Kranig, Arbeitnehmer, Arbeitsbeziehungen und Sozialpolitik unter dem Nationalsozialismus, in: Karl-Dietrich Bracher, Manfred Funke, Hans-Adolf Jacobsen (Ed.), Deutschland 1933-1945, Neue Studien zur nationalsozialistischen Herrschaft (= Bonner Schriften zur Politik und Zeitgeschichte; Bd. 23) (1992), 135-152, 148.

71 cf. RGBl. (1939), 1685, cited in Hachtmann (1989), 48.

72 Beurmann, Berufslenkung der Jugend, ein Gebot der Stunde, Die Rheinprovinz 16 (1940), 11, 299-300, 300; cf. also Stäbler (1941), 76f.

73 RGBl. (1938), I, 652.

74 cf. RGBl. (1939), I, 206. See also Kühne-Erfurt (Revisor), Arbeitseinsatzmaßnahmen zur Verbesserung des Altersaufbaues in den Betrieben, in: W. Sommer (Ed.), Die Praxis des Arbeitsamtes, Eine Gemeinschaftsarbeit von Angehörigen der Reichsanstalt für Arbeitsvermittlung und Arbeitslosenversicherung (1939), 87-120, spec. 110-117; Leopold Ost, ZurDienstverpflichtung von Jugendlichen, Das junge Deutschland 34 (1940), 3, 66-68. But see also interrogation record Emil S., Düsseldorf (September 1940), NWHStAD, RW 58/13128, Bl. 9; interrogation record Otto H., Wuppertal (1941), NWHStAD, RW 58/22330, Bl. 23; Der Jugendführer des Deutschen Reichs, Kriminalität und Gefährdung der Jugend, Lagebericht bis zum Stande v. 1. Januar 1941 (cited in: Lagebericht Reichsjugendführung 1941), in: Arno Klönne (Ed.), Jugendkriminalität und Jugendopposition im NS-Staat, Ein sozialgeschichtliches Dokument (= Geschichte der Jugend 1) (1981), 147f.

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83 Interrogation record Heinrich H., Krefeld, NWHStAD, Bestand Staatsanwaltschaft beim Landgericht Krefeld (Rep. 30), Bd. 106, Bl. 61.

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Youth Opposition to Vocational Education in the Former GDR in the 1980s*

1.

Contrary to widespread belief and to the claims of the GDR (German Democratic Republic) leadership the social system and specifically the system of production, distribution and consumption in the former GDR, the supply and the use of manpower, the actual development of the productivity of labour and the reproduction of labour power were neither centrally planned nor centrally directed. All the available indicators as supplied by the GDR itself show the GDR production system, like that of any other class society, to be marked by a long-term tendency of declining growth rates beginning in 1945 and ending in 1989, the decline taking on a typical cyclical form, i.e. being punctuated by recurring crises.[1] It is evident from these indicators that in the early 1960s the GDR was already on the brink of collapse. The long-term decline was then temporarily halted in the years 1965 to 1974 but thereafter it inexorably resumed its course. In 1982 the GDR was again on the verge of bankruptcy, after investment had declined in absolute terms for a number of years. No positive development appeared to be possible from then on, and at the time of unification there could not be the slightest doubt that the GDR was unable to survive on its own.

2.

Within the context of the cyclical decline of growth rates (production and productivity) proceeding at different rates in different branches of the economy it proved virtually impossible to define with any degree of precision the overall needs of the system at the level of employing labour power and even more so the distribution of the available resources of labour power to the different branches of production and circulation activity.[2] Throughout the history of the GDR the leadership was left with no other choice but to manoeuvre year by year in order to correct planning and decisions having been taken previously on the basis of mere guesswork. Matters were even made more difficult by millions of people leaving the GDR in the years up to 1961, 60 per cent of them being young people under 25 years. Stopping the migration movement did, however, not improve in any way the planning and decision making process for the employment of labour power. As a result the GDR became the nation with the worldwide highest rate of female employment, using mainly female labour power in the face of uncertainty and ungovernability of production development in order to fill the gaps.

Under such circumstances there was absolutely no reliable and realistic framework for forecasting, planning and systematically organising the quantitative supply of new recruits to the labour force from the pool of the young generation.[3]

3.

Like the growth of production and productivity, technical progress and the rate of innovation in industry and agriculture were the object of a permanent struggle between the leadership and the working class, a struggle tied to and at the same time producing the long-term decline of the efficiency of production.[4] However, this was not an ordinary struggle as between two armies firing at each other, each pursuing and defending its own strategic interests. Rather the nature of the struggle was such, that the leadership consistently acted according to what they believed to be in their interest (namely mechanising and automating production and circulation in order to increase productivity) and thereby consistently and irreversibly undermined the bases of value production in the GDR. It is another aspect of the same matter that resulting

from this permanent struggle the GDR continued lagging far behind levels of efficiency as they had been achieved in leading industrial nations of the world, e.g. in the FRG (Federal Republic of Germany).

Thus there was no way for the leadership of forecasting, planning or regulating the development of the labour process in production and circulation and anticipating the kind of qualifications (skills) needed on the side of labour power being employed.[5] It is a significant fact that throughout the history of the GDR there was a lack of proper research on the development of the labour process and the consequences it would have on skill requirements. Instead the leadership clung to the magic formula of a continuous intellectual upgrading of the working class as a result of the „scientific and technological revolution". However, indicators regularly used in support of this formula - changes in the educational structure of the working class, changes in the distribution of all workers across the levels of the pay structure, changes in the relative importance of physical and intellectual work - were all simply irrelevant for the problem in question.

4.

Given the increasingly critical situation prevailing in the former GDR in its later years, the system of education and schooling in general and particularly of vocational education emerged as a more and more important arena of class struggle. Policies of the leadership in the field of vocational education were precisely driven by the experience of growing difficulties with the working class, of moving in a hostile and chaotic context being shaped by factors which could neither be analysed and extrapolated on the basis of fictitious „laws of socialist development" nor governed through allegedly rational decisions of the Politbureau or the Council of Ministers (or whoever) assumed to be lying in the interest if the working class. But was there not a positive way out if the younger generation in its transition from the system of general education to its status as labour power could be motivated to adopt the fundamental values of „really existing socialism"? More than any other educational institution vocational education was thus fraught with the highest expectations concerning the education of future workers.[6] More than in any other educational institution teaching and learning in vocational education was linked - if not in fact fully subordinated - to the development and the needs of production and circulation units as well as the collective experience of production and (productive) work. More than any other educational institution vocational education was subjected to the direct control of business management, party, trade union and youth organisations at the level of production and circulation.

Nevertheless this was to no avail. In view of the enormous pride of the GDR leadership in the kind of transformation achieved since 1945 in the field of (vocational) education, the failure of setting and implementing its own political standards in this area and of educating a loyal, young and dynamic workforce had truly catastrophic dimensions. It should not be forgotten that the catastrophe was not passively suffered but actively promoted by the leadership itself.

5.

Considering the system of vocational education in the former GDR in relation to that of other countries[7], it represented a rather clear choice in favour of a factory and work based form of vocational education: The traditional German idea of combining practical education and training at the workplace with theoretical education in vocational schools was not abandoned after 1945, and yet the system was substantially transformed by promoting as much as possible the full responsibility of the units of production and circulation for the vocational education of the majority of young people (and for further vocational education and retraining of a majority of adults as well). Full responsibility, wherever it was established, included responsibility of nationalised enterprises for education in workshops and workplaces for apprentices (Lehrwerkstätten, Trainingskabinette, Ausbildungsplätze in den Betriebsabteilungen, Lehrlingsobjekte, Jugendobjekte), for education of apprentices in vocational schools (Betriebsberufsschulen) and for a system of boarding on factory premises (Lehrlingswohnheime).

The transformation was more or less accomplished by the beginning of the 1950s, with 700 Betriebsberufsschulen having been installed by this time, and it was basically maintained through the following decades. At the end of the 1970s there was a total of slightly less than 1000 institutions of

vocational schooling, out of them more than 700 being factory based vocational schools, nearly 300 being communal vocational schools (kaufmännische, landwirtschaftliche, allgemeine Berufsschulen) run by communes, and there were a few so called central vocational schools for occupations with a very low number of apprenctices like goldsmiths, musical instrument builders, chimney sweepers[8]. Apprentices were expected to spend two days of learning in vocational schools, the rest of their weekly hours being reserved for practical and theoretical education at the place of work.

Due to the illusions fostered by the GDR leadership the Betriebsberufsschulen were basically regarded as a progressive form of vocational education for young workers, appearing to secure

- the direct influence of the working class (i.e. the party, the trade union, the youth organisation) on the education of the younger generation,
- the unity of vocational education and production,
- the unity of theoretical and practical elements of vocational education.

As a matter of fact they secured nothing but the direct influence of increasingly critical situations, gross inadequacies of planning and direction and massive conflicts over all aspects of work and pay in the production and circulation units on generations of apprentices - all in all more than 7 million young people passing through the system of vocational education in the 40 years of existence of the GDR.

6.

One of the political priorities of the GDR leadership in the field of education consisted in abolishing the traditional differential and hierarchical system of educating unskilled, semi-skilled and skilled workers, replacing it by a single system of educating only skilled workers.[9] Going by their education (not by their actual work and the actual skill requirements for productive and unproductive labour), 76 per cent of all industrial workers on the territory of the former GDR including workers in the building industry and artisans were unskilled and semi-skilled workers in 1945. Only 21 per cent of all employed persons had an education as skilled worker or as master craftsman and only 3 per cent held the diploma of a higher education institution (Hochschule) or a specialized education institution (Fachschule). Matters were even less satisfactory in agriculture. Only 3 per cent of those being employed in agriculture had undergone an education as a skilled worker, as a master or as a cadre holding a diploma from a Fachschule/Hochschule. Representation of women and girls at all levels of vocational education from the level of skilled worker upwards was generally lower than that of men and boys, in industry less than 5 per cent and in agriculture less than 1 per cent of of all employed women.[10]

Undoubtedly this state of affairs was changed completely as a result of policies of the GDR leadership although it is difficult to demonstrate this statistically, as no detailed historical statistics on the education structure of the comprehensive worker are available. Detailed figures have been provided only for a single year, namely that of the census in 1971. According to them 36.0 per cent of all persons employed had no completed vocational education, 46.3 per cent had an education as skilled worker, 5.7 per cent an education as master craftsman, 7.5 per cent held a diploma of a Fachschule and 4.5 per cent that of a Hochschule.[11] These figures were also shown split up according to age groups and they might be interpreted with a grain of salt as indicating a historical trend. The percentage of those without a completed vocational education declines from 49.9 per cent in the age group of persons being 60 and above to only 19.0 per cent in the age group of those being 20 to below 25. In a parallel movement the percentage of those with an education as skilled worker rises from 37.2 per cent in the age group of those being 60 and above to 74.4 per cent in the age group of those being 20 to below 25.[12] Claims made at the end of the 1970s that 99 per cent of all young persons not otherwise continuing their education at the upper secondary level of schooling would receive an education as skilled worker appear to be justified. Parallel to this transformation the entrance level for vocational education was raised considerably from 8 to 10 years of general schooling, and in the 1980s something like 85 per cent of all apprentices had gone through 10th grade at the comprehensive school (Allgemeinbildende Polytechnische Oberschule).

Raising the level of education for the entire population, as the GDR leadership did in the postwar years, was far from being just an expression of altruistic attitudes - whatever claims to the fundamentally humanist character of their policies the leadership might have made. It was evident in practice (and was confirmed by sociological research in the 1960s and 1970s) that existing differences with regard to wage levels, workplace conditions and qualifications required would produce a certain contrast between the attitudes of skilled and unskilled workers towards many aspects of their work. Contrasts would be visible in the degree of fulfilling norms of production set by the leadership, in the kind of care taken in handling machines and tools, in participation rates in „socialist competition", in the degree of preparedness to participate in activities of further education and generally in the tendency to identify with the production ideology of the leadership. It was certainly expected that the abolition of the categories of unskilled and semi-skilled workers would help generalising positive attitudes among the entire labour force. However, expectations of the GDR leadership linked to the transformation of the educational structure of the labour force were not met at all. While differences in workplace conditions, qualifications required and wage levels rapidly disappeared as a result of mechanisation and automation, while a largely unified, homogeneous working class emerged from these processes, typical attitudes of the unskilled worker spread like an infectious disease to the entire working class.

7.

Resulting from political interventions, the system of occupational choices in vocational education[13] was subject to massive change in the history of the GDR. For the leadership this change was linked to claims not only of being capable of keeping pace with scientific and technological progress but of having the means of rationally anticipating and organising its future course and thus ensuring the modernity of the system of occupations and a solid orientation of vocational education towards future requirements. In 1957 school leavers were confronted with a total range of 972 occupations for which they could receive an education. By 1966 the number had fallen to 655 occupations and by 1977 it had further fallen to 316 occupations, without much change occuring afterwards in quantitative terms until 1989.[14] Out of a total of 316 different occupations for which school leavers could receive an education as skilled worker, 225 were intended for school leavers after 10 years of general schooling (duration of apprenticeship normally two years), 66 for school leavers after 8 years of general schooling (duration of apprenticeship normally three years) and 25 were reserved exclusively for adult education.

Reducing the number of occupations was an attempt of reacting to the problems encountered by the GDR leadership in planning and directing the development of vocational education but possibly too limited in its effects. From the educational year 1968/69 onwards the GDR leadership began introducing a new concept of occupations into vocational education under the name of basic occupations (Grundberufe)[15] intending to provide an elementary vocational education with a broad profile for an occupational area which would then serve as a common basis for a number of possible specialisations. In 1967 there were 4 such Grundberufe, later their number increased to 28 in 1970 and then to 103 in 1985.[16] With the educational year 1970/71 so called foundation subjects were made compulsory for everyone in vocational education - microeconomics, socialist law, foundations of electronics, foundations of measurement and control in production, foundations of data processing (Grundlagenfächer: Betriebsökonomik, Sozialistisches Recht, Grundlagen der Elektronik, Grundlagen der Betriebsmeß-, Steuerungs- und Regelungstechnik, Grundlagen der Datenverarbeitung). All of this seemed to be proof of flexible reactions of the system of vocational education to technological changes and corresponding new skill requirements occuring at the level of the labour process.

In fact these were helpless manouevres, as the GDR leadership actually found itself in a situation where long term planning over periods of 10 and 15 years, as was required in planning the supply of manpower and corresponding measures in the field of education, remained a completely utopian idea.[17] The leadership, be this in the central, regional and local bureaucracy or at industrial management level, did not even have the slightest idea what requirements would have to be met next year, not to speak of periods of five or more years.

8.

Throughout the history of the GDR policies of the leadership in the field of vocational education were motivated by a single fundamental concern - that of counterbalancing and compensating any educational effect produced on apprentices by the experience of innumerable, less and less tractable problems at the workplace in maintaining production and by participation in the daily struggles around the modalities and the results of work.

In the late 1970s and the 1980s compensation was increasingly discussed under a new headline not systematically used before, namely „communist education"[18]. Insistence on new and extended needs, as well as new and more efficient measures at the level of „communist education", thus serves as a reliable indicator of the growing crisis of vocational education, as it unfolded in the course of the 1980s. Dissatisfaction with the results of educating the young generation in the spirit of productivist ideology was expressed in indirect ways in the report by Erich Honecker at the 10th Party Congress in 1981.[19] Similar conclusions could be drawn from statements made by Erich Honecker in a speech held at the 11th Parliament of the FDJ (the youth organisation) in 1981[20] - among its more than 2.3 million members the FDJ had 500000 apprentices. The speech provoked as usual an initiative by the leadership of the FDJ defining new tasks for its youth groups in the field of vocational education.[21] As was standard practice, the Party Congress was followed by a directive of the State Secretary for Vocational Education, Bodo Weidemann, on evaluating the reports and decisions of the Party Congress and the FDJ Parliament in vocational schools[22], hoping in vain that this would help reminding the apprentices of their „responsibilities".

In many variations the theme of an improved, more efficient „communist education" was then taken up in the following years, with the debate finally leading to a complete overhaul of the entire system of vocational education in the years 1986ff. It was clear from the start that support for enhancing the efficiency of „communist education" had to come mainly from the cadres of the FDJ[23] and the FDGB[24] (the trade union) operating in the factories and offices. The State Secretariat for Vocational Education held annual meetings with leading cadres of both organisations in spring in order to discuss current problems and decide on new measures to be taken. In practice both organisations were prevented effectively by their own internal organisational problems and weakness from meeting the demands of the party leadership. In the case of the FDJ this led to rather critical remarks concerning its activities and their effects, combined with statements insisting on the fact that the FDJ cadres needed „help" from outside.[25] Nonetheless „help" did not seriously promise to solve the basic problem of the FDJ as a mass organisation with 2.3 million members - that of a passive and completely disinterested membership regarding adherence as a purely nominal matter. There could be no doubt that the FDGB with its 9 million members was not better placed in any way.

As for the teachers and other educators, including directors and heads of institutions of vocational institutions, they appeared not to be the loyal and reliable partners the GDR leadership would have wanted them to be in improving the results of „communist education" of apprentices. The quality and efficiency of teaching in vocational education were seen increasingly as a major problem, and dramatic undertones betraying a sense of deep crisis were not lacking in official policy statements.[26] It is a telling fact that in January 1983 a ministerial order was released concerning absenteeism of apprentices from school and lessons being cancelled.[27] The sense of crisis referred of course to the fact that the vast majority of teachers showed no particular inclination for identifying with the basic tenets of Marxism-Leninism and its fictions of a „developed socialist society". Wherever they did, direct confrontations with their apprentices were inevitable. This was particularly valid for any propaganda advocating partial and scientific education under the leadership of the party, for any endeavour of telling apprentices about correct class attitudes, for any attempts of massively promoting economic thinking according to the norms of productivism, for any efforts of inculcating „socialist" work ethics into the heads of apprentices, for any tendencies of favouring the emergence of an active attitude in increasing production, etc. Here teachers tended to be particularly cautious. It was easier and more rewarding, probably also intellectually more feasible for teachers to organise the educational process in a way that daily confrontations

with apprentices could be avoided. It even appears that directors of institutions of vocational education were very much aware of this situation but were generally hesitant to take massive action. In the perspective of the leadership this was sufficient reason to step up demands for improving the in-service education of teachers and to provide them with ample opportunities of participating in further education courses.[28]

It is evident that major problems existed in achieving the desired results in such foundation subjects as Socialist Law (Sozialistisches Recht)[29], Microeconomics (Betriebsökonomik)[30], but also in the technical foundation subjects intending to promote positive attitudes towards scientific and technological progress, and in particular the new information technologies[31]. As a result the leadership saw a need of employing consultants for the foundation subjects (Fachberater für die Grundlagenfächer)[32]. Apart from that the most massive problems arose in civics education (Staatsbürgerkunde)[33] and in pre-military education (vormilitärische Erziehung)[34].

In the process of organising, developing and monitoring vocational education directors of pedagogical institutions were assigned a major role by the political and administrative bureaucracy. This was quite in line with the hierarchical command structure the bureaucracy had in mind when defining and legitimating its own social position. Certainly the directors were to be supported by the party, trade union and youth organisation cadres but the main and ultimate responsibility rested clearly with them and with them alone.[35] This responsibility was even bound to increase in the face of prevailing attitudes of teachers with regard to the teaching of Marxist-Leninist ideology. However, it is not evident that directors actually had a tendency of taking their supervisory and educational functions very serious. Inside vocational education institutions they were facing a social climate which made tough interventions and disciplinary measures against individual teachers extremely difficult. That might also be seen as an explanation for the fact that directors were exhorted again and again by the central bureaucracy to fully assume their supervisory functions.

Given the fact that vocational education in the former GDR was mainly factory based and work based, any discussion of problems at the level of „communist education" directly involved the production and circulation units and particularly the directors of the more than 150 large conglomerates (Kombinate) in industry.[36] In the course of many years the conglomerates had become fully independent from demands and interventions of the central bureaucracy, and it was quite clear in the 1980s that it was in their own best interest to simply ignore the directives of the party leadership concentrated in the Ministries, the Politbureau and the Central Committee (as they were ignored by the lower levels of the party hierarchy). When in the early 1980s the leading branches of industry on which the fate of the GDR as an industrial nation rested - chemical industry, electrical engineering, machine building industry - entered into the deepest crisis in their history, directors of the conglomerates were faced with more serious problems than correctly reading and understanding party documents. The crisis was bound to have effects on vocational education at the workplace and in regulating the more or less permanent use of the labour power of apprentices in filling gaps in production.

It seems that as a result of such practices - which were fully in line with the general tendency of directors to hide as much as possible the true extent of overmanning and the actual availability of other resources - directors were instructed in December 1981 through ministerial order to integrate planning of production for the purposes of vocational education (Lehrproduktion) into the overall planning of production.[37] At the same time the central bureaucracy insisted on directors having to provide production tasks in line with the curricular norms of vocational education, fearing that otherwise there would be negative effects on the attitude of apprentices towards „socialist society".[38] Indirectly this was a way of acknowledging that the widespread discontinuity of production and the resulting massive temporal production efforts undermined all attempts at securing a coherent and efficient vocational education for young people. It is not evident that directors of conglomerates bowed to such instructions. Maybe the fact that the central bureaucracy continued reminding them of their responsibility provides a clue for understanding how far they did.[39]

The role of industrial and agricultural conglomerates in vocational education appeared to be open to criticism in yet other respects. Certainly education through work represented a value in itself - at

least this principle was part of dominant ideology and was believed to be valid on paper. As much as possible this was to be achieved by involving the apprentices directly in the actual production processes of their respective enterprise, in efforts directed at increasing production, in fulfilling export plans, in implementing plans for scientific and technological development, in helping with programmes of territorial and industrial rationalisation and in solving problems in the context of so called tasks for innovators (Neuereraufgaben).[40] However, in the 1980s doubts were increasingly voiced about the influence of work collectives on apprentices[41], on the role of the masters/skilled workers with teaching tasks (Lehrmeister/Lehrfacharbeiter)[42], about effects of the changing contents of work, about demotivation resulting from the lack of a system of payment remunerating apprentices according to their actual productive achievements, and many other factors present at the workplace[43]. One of the reactions to this problem consisted in educating apprentices in youth brigades (Jugendbrigaden) with the help of particularly selected educators and workers and in the handing over of so called youth objects or projects (Jugendobjekte) to groups of apprentices.[44] In practice it was of course impossible to completely separate apprentices from the evils of work collectives and their negative role in production and circulation processes.

Basically all decisions on developing vocational education at the level of conglomerates depended on the crisis cycle and on the long-term decline of productivity growth rates - as did the level of difficulties conglomerates experienced with apprenctices and the workforce as a whole. It was virtually impossible for directors of conglomerates to have a precise idea of qualifications needed in the context of technological changes at the level of the labour process. Hence it was also impossible to define clearly the needs of individual conglomerates with respect to recruiting apprentices for skilled work. Although conglomerates were directly responsible for defining and developing the content of basic and continuing vocational education (through the so called Berufsfachkommissionen), the respective working groups had nothing like a clear orientation for doing so. It was up to the conglomerates to see to it that the necessary preconditions were created for a high quality of vocational education through employing qualified teaching personnel but fundamentally the personnel being available offered no guarantees for being enthusiastic supporters of the system. Finally the conglomerates had to ensure that adequate material conditions existed for vocational education, including the equipment of workplaces serving mainly educational purposes, the availability of relevant production experiences, like training in modern computer and information technologies, the provision of centres for adults' continuing vocational education, etc. However, with the continuing decline of production and productivity growth rates funding for a modern, technologically advanced form of vocational education became a more and more difficult matter for conglomerates.

It is highly probable that the average teaching and learning processes in vocational schools, be this in industry and commerce or at the level of communal institutions, were not very efficient in the sense of the expectations of the leadership. The mass of teachers was far from being simple mouthpieces of SED propaganda. Also it is highly probable that extracurricular education processes in the boarding facilities being provided for 110000 apprentices on factory premises did not produce the kind of positive attitudes towards the achievements of „socialist society" the leadership was hoping for. Again educational personnel in the boarding facilities could not be looked upon as facing no other problem but how to increase identification of young apprentices with the ideological lore of the party.[45] But if anyone wishes to understand the radical opposition of apprentices to the entire programme of education for work, if anyone wants to know about its deepest sources, then the factory experience of apprentices and the kind of socialization processes being involved have to be closely examined. Actually at the end of the 1970s roughly 47 per cent of apprentices were educated in industry, another 15 per cent in the building industry and related trades, and slightly more than 6 per cent in agriculture and forestry, many of the latter in units of an industrial character.[46]

The factory experience taught apprentices to radically refuse any technological change and to resist as much as possible its introduction, as did the vast majority of work collectives. Technological change was nothing but a method of squeezing more and more work and more and more surplus

value out of them. More than ever the GDR leadership felt compelled to fight hostile attitudes of young workers and apprentices towards new technologies in the 1980s, insisting on greater efforts in propagating their benefits for „society" through theoretical, practical and extracurricular vocational education.[47] At the same time apprentices (and the rest of the working class) were assured that scientific and technological progress would put higher demands on their qualifications[48] - with apprentices certainly knowing better, once they had spent some time somewhere in production or circulation processes. At factory level it was no secret that even the mass of scientific cadres were far from being seriously concerned with inventing and implementing new technologies, thus helping to produce the well-known retardation of the GDR in technological matters in relation to world standards.

The factory experience implied that apprentices were faced daily with the discontinuity and disorganisation of work processes and that both had to be compensated by extra efforts or by just pretending to have achieved the production goals as defined in plans, developing a complete disregard for diligent and honest work. They had no difficulty in recognising that work brigades striving for diligence and honesty would be fined at the level of pay for their not having been able to produce according to the targets set by production plans. In the mad rush for higher productivity it did not matter in the least if expensive machines broke down or were completely ruined as a result of negligent attitudes, as long as it could be maintained with some semblance of truth that targets had been met. Apprentices not playing the game would risk permanent confrontation with the members of brigades. Hence it was a major problem for the leadership to instill the moral values of honest and diligent work (gewissenhafte, ehrliche Arbeit) into apprentices.[49]

The factory experience made it perfectly clear for apprentices that there was no climate of disciplined work at the workplace requiring them e.g. to observe rigorous norms of time keeping. Coming late, extending pauses, leaving early, being entirely absent from work for a day or even more - this was part of the normal life of a worker, and supervisors or directors were reluctant in punishing such behaviour in the face of existing problems with manpower supply. There was a widespread tendency on the side of workers to disregard orders and instructions from supervisors, if they interfered with their interests in increasing their pay and decreasing their workload. Resulting from the basic problems of maintaining a continuous production process it was also inevitable that the existing regulations concerning health maintenance, accident prevention and fire prevention were only respected in limited ways. As far as they participated in production and circulation processes, apprentices had little choice but to adapt to such standards and regard them as normal practice. On the side of the leadership this was seen as a serious moral problem and there was no lack of efforts to educate and motivate apprentices for conscious, voluntary discipline at work (bewußte, freiwillige Arbeitsdisziplin).[50]

The factory experience promoted attitudes on the side of apprentices which expressed the need for hiding as much as possible the true scope of their own productive potential and for avoiding as much as possible the full use of this productive potential. Like the vast majority of members of work brigades, apprentices preferred a basic orientation on the principle of „less work, more pay". If this required them to demonstrate certain forms of what the leadership termed active, creative behaviour (e.g. participation in the MMM movement or the movement of innovators), then they would do so. On the other hand it was perfectly clear to them that deeds did not necessarily have to follow words, and some substantial knowledge and experience was needed in order to know where exactly this was possible. Thus one of the basic problems of the leadership consisted in promoting motivation for high productive achievements (hohe Leistungsbereitschaft, Schöpfertum) and also seeing to it that such motivations were translated into practical activity.[51]

The factory experience encouraged apprentices to have a low regard for the quality and efficiency of work. At the workplace there was a constant conflict between the leadership insisting on the importance of quantitative production targets and at the same time demanding a higher quality of products. It appears that in the standard case it was preferable for work collectives to keep their eyes steadily on the quantitative targets. Hence there were permanent complaints about the production of too much scrap and about the necessity of repairs on an unacceptably large percentage of products, about having to employ an inflated corps of repair workers, about the malfunctioning of quality

control, etc. It was another aspect of the matter that work collectives tended to care very little about production costs as resulting e.g. from wasteful attitudes in using material inputs. Costs were not their business but that of factory management. Resulting from such very widespread phenomena the leadership was faced with the problem of morally educating apprentices in a way that the full respect for quality norms and a diligent use of available resource (Effizienz und Qualität der Arbeit) would become a matter of honour for them.[52]

The factory experience was such for apprentices that it made it neither desirable nor imperative for them to regularly and strictly observe existing norms of disciplined integration into the collective and into the factory hierarchies of command and control. Whatever they came to see at the workplace once they had left the comprehensive school (Allgemeinbildende Polytechnische Oberschule) and became apprentices was apt to provoke nothing but sentiments of disappointment and disgust. Whenever there was a chance to do so, they would turn their back on the workplace and the occupation for which they had received an education as skilled worker, always in search of better conditions.[53] This tendency took a dramatic turn in the 1980s when the leadership attempted to massively step up processes of technological change. As a result it was a serious problem for the leadership how to organise moral education of apprentices in the sense of increasing their readiness for disciplined integration into collectives (disziplinierte Einordnung in das Kollektiv und in die betriebliche Leistungshierarchie).[54]

9.

Undoubtedly the entire system of vocational education in the GDR was in the process of fully disintegrating in the 1980s. It had proved impossible to plan or direct any aspect of vocational education through central initiatives and orders. The most fundamental aims and objectives of government and party policies in the field of vocational education, in particular all attempts of enhancing the level of „communist education" in the sense of promoting adherence to the productivist ideology of the leadership, were sabotaged by the actual development of GDR class society and particularly the development of the production and circulation process. Traditional allies of the central bureaucracy, in particular the FDJ and the FDGB, had become completely unreliable and inefficient, both of them representing nothing but giants standing on feet of clay. The party hierarchy had decomposed in ways that the top levels increasingly complained about the regional and local levels having a complete disregard for decisions which had been taken in the Politbureau or the Central Committee. Individual enterprises were under the increasing pressure of the crisis cycle and the declining efficiency of production and had to react to it, even if this meant ignoring directives and orders from the central bureaucracy. Above all vocational education as offered in schools, training centres and at the workplace met with extremely hostile reactions from the side of apprentices and thus the results of education for work as the centerpiece of vocational education were nothing short of a disaster for the leadership.

In this rather desperate situation it became imperative for the leadership to relinquish the strategy of piecemeal reforms of the vocational education system and initiate instead a complete overhaul of the system in its entirety. The discussion process about a sweeping reform had begun no later than June 1982 when the State Secretariat for Vocational Education organised an exchange of experience and opinions with the so called Berufsfachkommissionen (consultative committees on aspects of the development of each individual occupation) on future developments in the education for skilled occupations.[55] In December 1983 the Politbureau of the Central Committee of the SED and the Council of Ministers of the GDR decided on a catalogue of measures for further improvement of vocational education „according to the requirements of social development and of the intensively expanded reproduction of the national economy".[56] The number of basic occupations (Grundberufe) was to be massively increased from 28 to 103, presupposing a prior comprehensive analysis of changes to be expected in the future at the level of work processes and work content of skilled work. Thus the flexibility of skilled workers in coping with the effects of technological change were to be increased, providing them with a broad basis of fundamental knowledge and skills.[57] New curricula for vocational education in every single occupation emphasizing the inseparable unity of

vocational training for a particular occupation and „communist education" were to be introduced step by step from September 1986, with 48 per cent of all newly employed apprentices to be educated on the basis of new curricula in 1986/87 and more than 75 per cent in 1987/88.[58] The previously existing technical foundation subjects were to be merged into a single subject under the name of Foundations of automation (Grundlagen der Automatisierung) to be taught as such from September 1987 onwards.[59] The other foundation subjects were to be reconstructed according to the new needs.[60] For all occupations new teaching materials were to be provided as well as new learning materials for apprentices and other literature, normatives for educational media and equipment as well as handbooks for teachers supporting them in lesson planning.[61] The relation between the activity of teachers and the activity of learners was to be organised in more efficient ways, enhancing the quality and the efficiency of teaching.[62] Examinations had to be adapted to the new situation.[63] In every respect the contents and the results of vocational education were intended to be brought fully in line with the requirements of scientific and technological development. It was expected that this fundamental reform would provide solid foundations for vocational education in the next decades, not just in the next few years.

In fact such high hopes were not followed by corresponding results in practice. Rather this last major reform of vocational education in the GDR ended in complete failure, even before it had really begun. That is, however, an aspect which I have to refrain from dealing with in this short paper.

Postscript:

There has been a certain tendency in East and West Germany in circles regarding themselves as critical to interpret the end of the former GDR as an act of colonisation destroying valuable achievements of a society allegedly representing „really existing socialism". It is assumed that as a result of unification in 1989 the former GDR was effectively liquidated as an industrial power having taken a place among the 15 leading industrial nations of the world. However, it is ignored in this perspective that the decisive forces of destruction were present in GDR society itself from the very first day of its existence and that they were continuously becoming stronger in the struggles of the working class against policies of the GDR leadership. The GDR did not collapse because of heinous acts of sabotage from the West (the opposite is true - particularly West Germany did what it could in order to stabilise a more and more shaky system in East Germany in the 1970s and 1980s) but because of the radical and unrelenting opposition from its own working class.[64] In this oppositional movement the apprentices appear to have played a major role.

Notes

* For the approach chosen and the methodology of this paper see the analyses presented in Th. Sander, Cold War and the Politics of Comparative Education - the case of divided Germany. Contribution to the AERA Conference in Chicago, March 1997 (to be published in papers of the symposium) and Th. Sander, *(Erziehung und Klassenkampf).* Some notes on the historical role and the political functions of a journal of the German radical Left, in: I. Nilsson/L. Lundahl (eds.), Teachers, Curriculum and Policy. Critical perspectives in Educational Research, Umeå: Umeå University 1997, pp. 59-90.

1 See Th. Sander, Bildungsplanung als Illusion. Empirische Untersuchungen zur Unplanbarkeit des Bildungswesens in der DDR, Münster: WURF Verlag, 1983, passim

2 See Th. Sander, op. cit., pp. 24ff.

3 See detailed analysis of probems in Th. Sander, op. cit. pp. 41ff.

4 Th. Sander, op. cit., pp. 59ff.

5 See detailed analysis of problems in Th. Sander, op. cit., pp. 103ff.

6 See particularly the summary of principles as explained in Redaktionskollegium unter der Leitung von W. Rudolph, Berufspädagogik, Berlin: Volk und Wissen, 1987, pp. 147ff.

7 See e.g. W. Rudolph, Bildungspolitische Positionen der Arbeiterklasse auf dem Gebiet der Berufsbildung, in: Berufsbildung no. 3, 1981, pp. 103-107

8 Berufliche Bildung für heute und morgen. Informationen aus dem Leben der Lehrlinge in der DDR, Berlin: Verlag Zeit im Bild, 1978, p. 30f.; on the historical development of the number of Betriebsberufsschulen and kommunale Berufsschulen see Redaktionskollektiv, Lexikon der Wirtschaft. Berufsbildung, Berlin: Verlag Die Wirtschaft, 1977, sub voce Berufsbildung, Einrichtungen der, p. 81f.

9 It should be kept in mind that the education system has its own concepts and definitions of skilled, semi-skilled and unskilled work not in any way to be equated with or directly related to a typology of skilled, semi-skilled and unskilled work as might be derived from the development of the labour process and concrete work.

10 All figures from B. Weidemann, Vier Jahrzehnte sozialistische Berufsbildung, in: Berufsbildung no. 7/8, 1989, p. 312

11 Statistisches Jahrbuch der DDR 1974, p. 433

12 Not quite as positive results have been obtained by two GDR researchers providing their own calculations on the structure of the workforce according to their education for the years from 1957 to 1970. See H. Maier/J. Wahse, Probleme der Entwicklung des Bildungsniveaus und der Qualifikationsstruktur der Werktätigen in der DDR, in: Jahrbuch für Wirtschaftsgeschichte 1974, Teil I, p. 130; see also the results of research presented for the year 1986 in R. Schaefer/J. Wahse, Neue Technologien - Arbeitskräftestrukturen und Qualifikationsanforderungen, in: W. Sydow (ed.), Technologien im Umbruch, Berlin: Verlag Die Wirtschaft, 1988, pp. 114-127; G. Schneider, Entwicklung und Nutzung der Bildung und Qualifikation der Arbeiter und der anderen Werktätigen, in: Forschung der sozialistischen Berufsbildung no. 3, 1980, pp. 21-23

13 These occupations and occupational choices represent educational constructs for the purposes of vocational education. They are in no way identical with the division of labour resulting from the historical development of the production process and particularly the labour process.

14 Berufliche Bildung für heute und morgen, op. cit., p. 60; B. Weidemann, Vier Jahrzehnte sozialistische Berufsbildung, op. cit., p. 314

15 Examples for the structure of basic occupations (Grundberufe) to be found e.g. in Redaktionskollegium unter Leitung von W. Rudolph, Berufspädagogik, op. cit., p. 112; Redaktionskollektiv, Lexikon der Wirtschaft. Berufsbildung, op. cit., p. 145

16 Redaktionskollegium unter Leitung von W. Rudolph, Berufspädagogik, op. cit., pp. 106ff.

17 This was reflected in appeals to the administrative hierarchy demanding a higher level of governmental guidance and control in developing vocational education. See e.g. B. Weidemann, Erhöhung des Niveaus der staatlichen Führungstätigkeit wichtige Aufgabe für die Erfüllung des gesellschaftlichen Auftrages der Berufsbildung, in: Berufsbildung no. 4, 1980, pp. 145-147

18 On the object, content and methods of „communist education" (in my eyes a typical misnomer) see in particular Redaktionskollegium unter Leitung von W. Rudolph, Berufspädagogik, op. cit., pp. 147ff.; according to this fundamental statement „communist education" was seen as a unity of internalizing the ideological world view of Marxism-Leninism (as interpreted by the party), of an ethical code of conduct for „socialists" (as defined by the party) and of particular forms of education for work under the norms of productivist ideology (as prescribed by the party); see also H. Wachenschwanz, Weltanschaulich-moralische Erziehung der Lehrlinge im Unterricht, in: Berufsbildung no. 2, 1980, pp. 59-62; E. Berwig et al., Prinzipien und Methoden der kommunistischen Erziehung in der Berufsausbildung, in: Berufsbildung no. 9, 1982, pp. 390-394; G. Feierabend/R. Zeh, Die Anwendung der Lehren von Karl Marx bei der kommunistischen Arbeitserziehung in der Berufsausbildung, in: Berufsbildung no. 9, 1983, pp. 372-376; G. Feierabend, Die Marxsche Auffassung von der allseitigen Entwicklung der Persönlichkeit und der Beitrag der Berufsbildung zur Persönlichkeitsentwicklung in der sozialistischen Gesellschaft, in: Berufsbildung no. 9, 1983, pp. 391-394; R. Zeh, Herausbildung, Festigung und Vertiefung des marxistisch-leninistischen Klassenstandpunktes der Lehrlinge, in: Berufsbildung no. 3, 1986, pp. 110-114

19 Bericht des Zentralkomitees der Sozialistischen Einheitspartei Deutschlands an den X. Parteitag der SED. Berichterstatter: Genosse Erich Honecker, Berlin: Dietz Verlag, 1981, pp. 96-103

20 E. Honecker, Der Sozialismus löst die Lebensfragen der Jugend, in: id., Zur Jugendpolitik der SED. Reden und Aufsätze von 1945 bis zur Gegenwart, Zweiter Band, Berlin: Verlag Neues Leben, 1985, pp. 328-344

21 See FDJ-Auftrag X. Parteitag. Beschluß des XI. Parlaments der Freien Deutschen Jugend, in: Neues Deutschland, 6/7 June, 1981, p. 5; see also K.-D. Steinecke, Mit vielfältigen Initiativen und anspruchsvollen Taten bereiten unsere Lehrlinge den X. Parteitag der SED in der „Parteitagsinitiative der FDJ" würdig vor, in: Berufsbildung no. 9, 1980, pp. 370-372; E. Krenz, In der „Parteitagsinitiative der FDJ" die Kampfkraft des sozialistischen Jugendverbandes unter den Lehrlingen weiter erhöhen, in: Berufsbildung no. 9, 1980, pp. 378-380; Die Verantwortung der Jugend bei der Weiterführung der sozialistischen Revolution in der DDR und die Aufgaben der FDJ nach dem X. Parteitag der SED. Rechenschaftsbericht des Zentralrates der FDJ an das XI. Parlament der Freien Deutschen Jugend. Berichterstatter: Egon Krenz, in: Junge Generation no. 7/8, 1981

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