From Formulation to Realisation: Reform in Swedish Continuing Vocational Training
– The Case of Advanced Vocational Education

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ABSTRACT

This thesis deals with the complexities of planning and implementation of a reform in Swedish continuing vocational training. By complexities it is suggested that vocational education and training (VET) constitutes a contested arena for multiple stakeholders in society. Hence representatives of working life, the State, educationalists and individuals make demands and requirements that VET as an institution should comply with. As this thesis proposes, the complexity has increased further in recent years partly due to the rapid developments in working life and labour markets, and partly due to the on-going deregulation and de-centralisation of the educational system. In general, as this thesis argues, these developments have together created conflicting demands among the stakeholders about how VET should be organised, the mode of delivery and relations towards the labour market. At the same time, the importance of VET is increasingly anticipated due to its potential to support economic growth, and social and cultural integration.

The study object of this doctoral thesis is the Swedish reform with Advanced Vocational Education (AVE) which was introduced in 1996 as a pilot project and became a permanent part of the system of continuing vocational training in 2002. Designing the research procedure comprising both the central level educational policymaking activities and the subsequent actions of implementation, the three main questions addressed are: what are the main driving forces behind the formulation of AVE; how is AVE implemented into the system of continuing vocational training; what are the main results and experiences achieved of the reform.

Considering the reform of AVE within a theoretical perspective, this doctoral thesis uses the analytical model of educational reform development by Lindensjö and Lundgren. In this acknowledged model, reforms are perceived to taking place at two different contexts in society: the context of formulation and the context of realisation where the former considers the political activities and the latter considering the institutional actions.

From a methodological point, this doctoral thesis is designed as a multiple case study with six appended papers, exploring different issues in the reform of AVE. These issues comprise Organisation and Structure, Quality Improvement, Workplace learning and Transition from AVE into working life. Achieving the demands for validity and trustworthiness, this study uses, among other strategies, multiple sources of data gathering, applying data-triangulation.

The findings of this doctoral thesis suggest that with AVE a number of educational innovative features were introduced which generally had a positive
impact. From the context of formulation, findings suggest that consensus among the central level stakeholders for how AVE should be designed was reached through the joint work of organising programmes during the three-year Pilot project, in combination with the concurrently restructuring of working life. From the context of realisation both educationalists and employers perceived the possibility of designing AVE programmes in co-operation based on local level requirements as positive. Conclusively, most students appreciated AVE as it opened up an opportunity for combining theoretical studies with working at a potential employer thus enhancing their practical skills.
APPENDED PAPERS

Paper I


Paper II


Paper III


Paper IV


Paper V


Paper VI

OTHER PUBLICATIONS BY THE AUTHOR

The following research reports and papers have also been published within the framework of the author’s research, although not appended in this doctoral thesis.


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1 INTRODUCTION

This first chapter introduces the main themes of this doctoral thesis. The chapter starts with a reflection on the changes that have taken place in working life around the globe. Secondly, the argument put forward is that these developments challenge the perception and role of education and training in advanced western societies. The chapter concludes by outlining the point of departure for this study which focuses on the planning and implementation for provision of continuing vocational training.

1.1 Developments in Working Life

In the last three decades or so there has been a growing interest in and scholarly attention given to the relationship between developments within working life, and the effects on function and organisation of vocational education institutions in advanced industrial societies (Hodkinson and Unwin 2002; Nijhof 2001; Tessaring 1998; 2000). Arguing for the forces of change it has been claimed that, for example the ‘information technology revolution’ (Castells 1996; 1999), emphasised by the evolution of microelectronics has not only reshaped production processes exemplified by the concept of Flexible specialisation (Piore and Sabel 1984) and work organisations such as the innovation of lean production (Womack et al. 1990), but has also contributed to transforming the occupational structures and skill requirements (Callaghan 1997; ACIRRT 1999; Marginson 2000; Waterhouse et al. 1999; Ransome 1999).

While it should be acknowledged that there is a fierce debate between those representatives of the research community suggesting that western society is currently undergoing a paradigm shift, contending that a new post-industrial era of global proportions has begun (Handy 1985; Rifkin 1992), and those who are more critical to the ‘discourse of globalisation’ (Haughey 2000) contesting just how revolutionary our time is within a longer economic-historical perspective (Thompson and Warhurst 1998; Webster 1995; Wetterberg, 2000); nevertheless, most academic and other commentators tend to agree that the magnitude by which the effectiveness, rapidness and borderlessness of the western economies are changing is quite unique (Brown 2003; Green 2002; Guile 2002).

1.2 Developments in Education and Training

The ongoing restructuring of working life has challenged the perception and role of education and training in most European countries and elsewhere (Lassnigg 2001; Whitty 1992). Jakupac and Garrick (2000) suggest that the social, cultural and political changes which have occurred have in turn moved the concept of education and training well beyond the traditional parameters. In particular, the
changes concern how, where and for what purposes learning can and should take place.

Exploring the incentives for change, Casey (1999) suggests two general developing trends within working life. Firstly, since much contemporary management and organisation literature emphasises organisational restructuring that flattens hierarchies, as a consequence, a general trend of organising industrial production processes and work organisations results in continuous downsizing of the number of employees.

Secondly, intertwined with how enterprises and companies tend to structure their work organisations are the conditions under which modern industry and commerce employ labour. Casey (1999) discerns two parallel actions which she denotes as: Casualisation and Outsourcing. In terms of casualisation, Casey on the bases of an extensive research overview suggests that many of the so-called ‘new service’ workers do not hold full-time employment with regular hours, as their services are casually and variably required. Subsequently, the regulation of hours of work, rates of pay, and other employment conditions elide under casual arrangements with considerable implications for the employee. In terms of outsourcing, which is understood as the corporate strategies by which services are contracted out of the main organisation, employees are increasingly becoming redundant and laid off.

In the increasingly automated and computer-integrated workplace, ‘multi-activity’ jobs combine the tasks previously carried out by workers with different skills. As a result, the rudiments of industrial work have visibly shifted from physical effort of the manipulation of electronic symbols through monitors, keyboards and press buttons. The capacity for ‘flexibility’ enabled by automated manufacturing systems has been extended as a growing skill requirement of the worker. The fundamental requirements of industrial work, body exertion, manual dexterity and endurance have been progressively added to by the requirements of rapid perception, attentiveness and the ability to analyse problems and make quick decisions as well (McIntosh 2002).

Following this development, Jarvis (1995) among others observes that the shedding of jobs in many sectors of the western economy has led individuals to seek new forms of employment and training. In many of the cases people are not helped by basic training programmes that are offered, but instead require more individualised forms of training packages to fit and enhance their personal ‘portfolio’ of qualifications and competences needed.

Consequently, there has been a considerable amount of interest in recent years in the extent to which the economic performance of a nation can be improved by
enhancing the skills of their workforces. Increasingly the quality of their stock of human resources has been identified as a crucial source of improved competitiveness (Raggatt and Williams 1999).

To conclude, Coffey (2001) contends that the role of education has been re-addressed in the light of the cultural and economic transformations of post-industrial societies, as part of an emergent policy repertoire. These shifting relationships between the individual and the state have been matched by rapid social and institutional changes as well.

1.3 Point of Departure for this Study

The training systems have themselves undergone significant transition processes in terms of educational decentralisation of planning and implementation, educational contents and modes of delivery. In general, the developments above could be seen as a response to the major ideas that it is up to the individuals themselves to be better trained, attain relevant competences, be able to improve their fortunes in the labour market, and be prepared to navigate their way through the lifelong learning society and better steer their own competence development.

The increasingly rapid surge for knowledge has implications for the division of responsibility for training the workforce. A general trend is that adults will have to be increasingly self-reliant in ensuring that they have the marketable knowledge. Employers will make a limited contribution where they see it is in their direct interests to do so. For the governments, pressure will increase to promote lifelong learning for everybody, not just for the elite (Van Wieringen and Attwell 1999).

In this context, there is little doubt that interest and concern in educational policymaking- and planning for an effective provision of vocational education and training (VET) including adult and continuing vocational training (CVT) and the bridging towards the labour market has gradually been accentuated. Effective provision of CVT is commonly regarded as highly significant in order to maintain and enhance the skills and competences of the country’s workforce, enabling national competitiveness and economic growth (Hodkinson and Unwin 2002; Grubb and Ryan 1999). Equally, an effective provision of vocational education is perceived as necessary to support many different people in their everyday struggle in finding an appropriate work/life balance by providing both education packages for those already working, to basic skill courses for less advantageous groups, preventing social exclusion (van Wieringen and Attwell 1999).
In conclusion, this introduction shows in brief the importance of exploring how the process of educational planning and implementation of new vocational education reforms takes place, and also what the results of these reforms are. In the next chapter the concept of continuing vocational training is further explored.
2 BACKGROUND, PROBLEM AREA AND DESIGN OF STUDY

In this second chapter the background, problem area and design of this study are introduced. The chapter concludes with presentation of the research questions, analytical framework, delimitations, and the disposition of this thesis.

2.1 Continuing Vocational Training

In the preceding introduction chapter, it was suggested that the concept of continuing vocational training (CVT) has gained significance in European countries and elsewhere in recent years. In the following sections, the emphasis is on further defining and exploring the objectives of the concept.

2.1.1 Conceptual definition

With the growing concern for the advancement of continuing vocational training, a number of observers’ point to the problem of reaching a common definition on the conceptual boundaries. Green et al. (2001) argue that the problems of finding a clear-cut frame of reference for CVT within, for example, the member states of the European Union are because of the varying age boundaries of participants and level of qualifications. From this standpoint, Green et al. define CVT as comprising both on- and off-the-job training, and as longer-term adult vocational training, however excluding forms of training that are undertaken within higher education institutions. In conjunction with this notion, Westphalen (1999) contends that CVT is a broad term often associated with most structured education and training taking place outside the formal education system and after completed initial vocational education and training.

Besides the problem of differentiating the concept of continuing vocational training from other existing levels such as initial and tertiary vocational education (OECD, 1998), is the more fundamental question of conceptually distinguishing the identity of ‘vocational’ education and training from other general streams within the educational systems. The general contention is that vocational education and training is to provide job-oriented qualifications. Thus, vocational education should prepare students for an occupational career and professional functioning. From this definition, students should be sufficiently qualified to be able to start their career in specific entry functions and gradually develop into flexible experts ready to adapt to future technological and social innovations (Nieuwenhuis and Mulder 1999).
However, arguing that there are a number of difficulties founding a consistent definition in different social and cultural contexts or even within the same context seen over a longer time period, Moodie (2002) suggests that the identity of vocational education should be based in essence on four types of characteristics, achieving higher and more certain conceptual accuracy. These characteristics are: epistemological, teleological, hierarchical and pragmatic.

From the epistemological point of view, Moodie (2002) suggests that definition should stem from the distinctive ways of knowing and learning that are developed within vocational education. With teleological, the definition should be based upon the purposes that VET serves in society. He further defines the position of VET within the educational system by identifying three additional sub-classification levels in the hierarchical characteristic. These are: Occupational level, Educational level and Cognitive level. Finally, with the characteristic of pragmatism, Moodie (2002) suggests that VET could be paradoxically defined based on the various public statements where it is not elsewhere included, but having the role of filling the educational gaps.

2.1.2 Objectives with Continuing Vocational Training

Based on the rather broad definition of continuing vocational training, it is not remarkable that the general objectives of CVT as stated from policy quarters, often relate to economical aspects. As the Organisation for Economic Cooperation and Development (OECD) observes (1996), many governments give priority to the labour market functions of continuing education and training, and for developing the competitiveness of companies.

Elaborating the objectives, in their analysis of the European Commission initiated FORCE programme, the three commissioned researchers Brandsma, Kessler and Münch (Viertel 2001) outlined six main functions of continuing vocational training linked to different target groups and labour market strategies. These functions were: (1) Adaptation to the changing requirements of the labour markets, e.g. to new technologies; (2) Innovation by upgrading skills through continuing vocational training, mostly enterprise activities; (3) Promotion by upgrading skills for vocational careers, mostly for qualified and employed people; (4) Catching up for those lacking adequate qualifications; these are often measures for target groups or to provide basic qualifications; (5) Curative or compensatory to replace obsolete or under-used skills or provide qualifications consistent with social and labour market policies and; (6) Preventive or cumulative for those who want to acquire skills for future use - to stay employed or upgrade themselves.
However, attention is not merely focused on the economic output but also on how CVT as a system could enhance democratic values and social integration in societies as well. Participation in the labour markets is an important precondition, but not an exclusive one. Outside the world of work, individuals also need skills in the form of basic literacy and numeracy enabling them to participate in full. Furthermore, substantial concern is also shown about how CVT could help unemployment and facilitate transition between education and the labour market for individuals (van Wieringen and Attwell 1999; Tessaring 1998). Hence, education and training systems in Europe are seen as having a special responsibility towards groups at risk of marginalisation and social exclusion and towards those with limited existing prospects on the labour market. Young people and new immigrants are perceived to be at particular risk. To counter these risks, efforts are perceived to be needed focusing on preparation for the world of work, through practice-oriented vocational education.

At the utmost, one could also say that the aim of CVT is to promote the concept of lifelong learning. The concept is neither an obligation nor only a matter of personal preferences, but a growing necessity in the new economy with its high level of job-turnover and new demands for flexibility and almost continuous life-transitions. Thus, learning and adaptation is an ongoing lifelong process. Individual incentives for self-directed learning must be promoted, institutional and psychological barriers eliminated and a broad provision of learning options adapted to different life-stages, needs and flexible life-patterns have to be delivered. Rights and duties, obligations and voluntary activities, options and challenges have to be transformed into lifelong learning contracts. To sum up, the main aims and goals that are considered by CVT could be devised as in Figure 1 below.

![Lifelong Learning Diagram](image)

**Figure 1. Aims of continuing vocational training.**

Exploring the relationship between the concepts in Figure 1, lifelong learning can be seen as a policy framework and set of tools to facilitate various forms of
individual and collective life transitions including transitions from school to work, from work to work, from work to further education, from work to family and back to work, from work to retirement and to post-retirement work. Thus, lifelong learning policies and continuing vocational training systems have a symbiotic and hopefully constructive relationship with policies on social security and welfare, policies of economic and regional development and in a wider societal dimension even on working life policies such as work place diversity, social inclusion and on working hours (Abrahamsson 1996).

2.1.3 Research Bodies and Issues

Focusing on the general concept of vocational education and training, one finds that the number of international research bodies concerned is rather extensive. That is particular the case if both publicly and privately funded institutes, associations and organisations are included.

From a European perspective, the European Centre for the Development of Vocational Training (CEDEFOP) is perhaps the best example of a cross-national institution specialised into both research and monitoring of the developments in various levels of VET. Established in 1975, the role of CEDEFOP is to assist the European Commission in encouraging, at community level, the promotion and development of vocational education and training. Their task is also to provide policy-makers, researchers and practitioners with information to promote a clearer understanding of developments, enabling informed decisions for future action.

Another international example is the Australian National Centre for Vocational Education Research (NCVER). With headquarters located in Adelaide, South Australia, the research centre administers the national managed vocational education and training research and evaluation programme on behalf of the Australian National Training Agency (ANTA). For this task, the NCVER collects and analyses data covering VET providers and programmes including levels of and fields of education, student characteristics, and employment activity (NCVER, 2001). A third research body of interest is the International Vocational Education and Training Association (IVETA) which comprises a network of vocational educators, vocational skills training organisations, business and industrial firms on a worldwide basis.
Research issues

Reviewing the national understandings with the regard to the cultural diversities that exists in a European perspective, Sellin and Grollmann (1999) propose the following definition of vocational education research:

"Vocational training research is the study, on the basis of scientific criteria and appropriate methodology, of personal and social conditions, of the processes involved in imparting and acquiring knowledge and skills and the outcome of those processes, and of attitudes and behaviour patterns which have a particular bearing on potential or actual roles in the economic and social division of labour" (Sellin and Grollmann 1999 p. 69).

While Sellin and Grollmann (1999) admit that there are far more ongoing national and supranational research projects which do not fit this definition, they argue that the definition can still serve as a preliminary point of reference for the characteristics of the research studies that are taking place within VET.

From the difficulties of reaching a common conceptual definition of vocational education, the research disciplinary settings are of substantial range too. In their review of vocational education and training research in the UK, Brown and Keep (1998), conclude that the overall picture of institutional settings where research is taking place, is extremely fragmented and located in a multiplicity of institutional and disciplinary settings. This is because, as Brown and Keep (1998) argue, the study of VET does not, of itself, constitute an academic subject or discipline in the accepted sense of a term. Thus, those who conduct research on VET do so from within a wide range of separate disciplines and departmental settings including, for example, research disciplines of Political science, Anthropology, Psychology, Economics, History, Pedagogy, Sociology, Gender studies and Industrial relations.

Hence, outlining all of the ongoing research themes within vocational education and training from an international perspective is almost an impossible task. However, from the introduction chapter, it can be concluded that research on developments within working life and how this affects the systems of vocational education in economical, social and cultural aspects, constitutes a major part. Following the examples of research bodies described in the section above, the NCVER carries out an extensive in-house research programme which includes the following themes: Longitudinal studies; Delivery of VET; Industry training; Lifelong learning and International aspects (NCVER 2001). Looking from a European perspective, the abovementioned CEDEFOP (2001) commissions research within the themes: Coordination of VET systems with the labour market; Lifelong learning and development of competences; Employment,
economic performance and skill mismatch; Individual performance within VET, transition to working life and social exclusion.

2.2 Continuing Vocational Training in Sweden

Like the international developments described in the former section, the Swedish system of continuing vocational training has also been characterised by ongoing reforming efforts during the 1990s. In the following section, the structural framework including responsibility is introduced. The section begins with a conceptual definition and objectives.

2.2.1 Conceptual Definition and objectives

In Sweden, the conceptual definition of continuing vocational training is broad and not very precise. The lack of fixed boundaries is reflected in educational and training contexts in that no distinction is usually made between concepts of occupation, trade, profession and work with respect to how much education or training is required. The emphasis on the level of qualification and the length of training in connection with discussions of certain occupations/trades/professions that is self-evident in other languages and cultures is most often not found in Sweden. Any occupation/trade/profession on the Swedish labour market is thus called “work” and vice versa (SOU 1999:119). From this standpoint, the aim and the importance have been that the training should result in work, in employment, and this has been a sufficient reason for using the term ‘vocational training’.

Following this lack of clear positioning, the Swedish system of CVT is defined as comprising all Post-secondary vocational education and training excluding professional degrees at university level. This means that CVT is rather diversified since all vocationally oriented education and training within Liberal adult education, Labour market training, Vocational training within municipal adult education, In-service training, and Higher technical vocational programmes falls under the concept (Abrahamsson 1999).

The general objective with CVT is gaining or maintaining knowledge and qualifications intended for use in the labour market. By this broad definition a distinction can be drawn between that part of non-formal education which concentrates on spare-time activities only and thus does not aim at work or at a vocation (Ministry of Education and Science 1994).
2.2.2 Organisational Structure

The various study forms within CVT have primarily aimed at catering to the increasing demands of working life for qualified and skilled labour. In the following, some of the main forms are described in more detail.

Supplementary Vocational Courses within Municipal Adult Education

The type of education and training called “Supplementary vocational courses” within the framework of Municipal Adult Education (“Komvux”) aims at giving adults education or training resulting in a new level of qualification in their present jobs or in new jobs. There are supplementary courses with nationwide as well as local recruitment. The grounds for the division into nationwide and local courses are to what extent the courses provide for a nationwide or regional demand, whether the working life cooperates, to what extent the courses impart a deeper knowledge of a particular occupational area, and to what extent the courses contribute to counteracting traditional choices of occupation among men and women (Ds 2000:33).

Like any other municipal adult education, supplementary vocational training is given in the form of courses (National Agency for Education 2002:218). The parent bodies are for the most part local authorities and county councils. These have the right, however, to make use of other course organisers. Among the nationwide courses there are also courses with nationally stipulated curricula. Examples of these are training in passenger transportation, traffic instruction, and ambulance driving. The length of the various courses range from 400 to 1 200 hours, that is, from one to three semesters (Ds 2000:38).

Vocational training within the Labour market training programmes

Vocational training within the Labour market training programmes (henceforth called AMS courses), is a collective name for a large number of courses of varying lengths and qualification levels chiefly aimed at improving the labour market’s way of functioning. Training courses may be assigned from the day a person is 20 years old. Another main criterion for admission is that the person either is or risks becoming unemployed and that she or he is applying for a job via a public employment agency. A further criterion that distinguishes AMS courses from other post-secondary forms of education and training is that the decision about a person’s participation is made by her/himself in consultation with an employment office clerk. A financial benefit in the form of a training allowance is granted for the period of the course. The size of the allowance is assessed on the basis of the benefit the person would have received, if s/he had been openly unemployed (Ds 2000:38).
The courses in this category are primarily to be vocational and to impart sufficient qualifications for a person to be employable. Another criterion for the AMS courses is that they are to be constantly adapted to the current state of the market and the demand for competence on the labour market. The courses are also to be designed so as to fulfil different functions depending on the individual’s needs. While some persons participate in order to enhance their current vocational competence, others participate in order to develop completely new competence (Ds 2000:38; Furåker and Blomsterberg 2002).

Higher technical vocational education

The type of training referred to as Higher Technical Vocational Education (YTH) was started in 1975 as an experimental effort. The reform with YTH came into existence partly for the purpose of catering to industry’s and small businesses’ demand for qualified vocational competence, and partly in order to meet the demand for higher education and training from a sector of society that had previously had small or no opportunities to apply for academic studies. A third aim of YTH was to provide teacher training for prospective vocational studies teachers in upper secondary schools. The parent bodies of YTH are universities and university colleges, which also handle the admission and selection of students. Eligibility for application requires two years of vocational training followed by four years of working experience in the relevant area of study; alternatively, six years of working experience may give the basic qualification for eligibility (Ds 2000:33).

The lengths of the YTH programmes vary. In accordance with the Higher Education Ordinance there is a special Vocational Studies Degree comprising at least 60 Swedish academic credits.\(^1\) There are, however, examples of programmes that have been extended to comprise 80 academic credits. There are YTH programmes in 18 different geographical locations, and there are altogether about 20 different study programmes. In addition to the majority of the programmes, which prepare for occupations in trades such as vehicle engineering, carpentry and joinery, and mechanical and plant engineering, there are also programmes specialising in food engineering, quality control engineering, and textile and clothing engineering (Ds 2000:33).

2.2.3 Responsibility of Continuing Vocational Training

The formal authority and responsibility for educational policymaking and planning of Vocational Education and Training ultimately rests with the

\(^1\) A Swedish academic credit corresponds to one week’s full-time studies; 60 credits are equal to three semesters of full-time studies.
Parliament and Government (Lindell and Adams 2000). However, the informal influence and power exerted by various organised interest groups of VET is rather substantial. The existence of organised interest groups - stakeholders - is, of course, not unique. However, what distinguishes Sweden from other countries is the extent to which such non-parliamentary bodies, i.e. employer- and employee confederations, single large trade unions, large companies and national authorities among others are generally regarded as necessary and sufficient building blocks for national policymaking (Heclo and Madsen 1987; Rothstein 1992).

Hence, while developments in general education have been developed mainly as a result of decisions by government, the system of Continuing Vocational Training has been largely a joint responsibility between the state and the stakeholders of vocational education, i.e. employer and employee organisations and other concerned partners. As a consequence they have built large and well-staffed research departments whose investigations and assigned experts fit well into the ongoing work of commissions (Lundahl 1997).

2.2.4 Research Issues

Compared with the international perspective, the Swedish research field on vocational education and training is rather limited and disintegrated, according to several analysts (Achtenhagen 1997; Abrahamsson 2000; Olofsson 2003). The cause of the disintegration is difficult to determine exactly, but according to Abrahamsson (2000) it may be seen as the result of a number of covariant factors. These are for example cutbacks in governmental research funds, lack of a clear identity in the Swedish educational system and, as a combination of these two factors, lack of status in the Swedish academic world. According to Abrahamsson, who bases his argumentation on a survey carried out at Göteborg University (ERD 1998)\(^2\), the consequence is that the majority of research projects in the 1990s have been concentrated to a small number of academic departments, with education and economic history as the chief subjects involved.

The numerically small volume of ongoing research projects is also reflected in continuing vocational training. This chiefly concerns studies of the relationship between vocational training and the labour market, in particular studies related to the problems that constitute the point of departure of the present study. In the

\(^2\) The compilation of Swedish research projects was made by Professor Per-Olof Thång and Doctor Bengt Peterson at Göteborg University. The compilation was carried out within the framework of the European collaborative project “European Research Directory”. The project was coordinated by the European Centre for the Development of Vocational Training (CEDEFOP).
above-mentioned survey from 1998, which accounted for a total of 24 projects, there were only two projects that may be said to be related to the research area.³

A larger research literature review performed for this study that includes published research projects launched after the Gothenburg survey in 1998 gives a somewhat more comprehensive picture. A category of investigations belonging to the area of research on post-secondary vocational training is the Ministry of Industry, Employment and Communications’ two extensive reports on the AMS courses’ way of functioning and effects on employment (Ds 2000:38), and also an analysis of the supply of competence in a number of trades on the Swedish labour market in which the current supply of training is also surveyed (Ds 2002:47).

Surveys of vocational training as a research area may further be linked to the two anthologies on working life development, vocational training, and labour market that have been published in the last few years. One of them *Yrkesutbildningen i går och idag* (‘Vocational education and training yesterday and today’ (Olofsson and Schånberg 2000) takes a wide theoretical social perspective, in which the importance of vocational training is analysed partly in terms of economic growth and the labour market’s way of functioning, and partly in terms of issues to do with the gender-related division of labour and the pattern of professionalisation in Swedish society. In another recent anthology *Utbildning, kompetens och arbete* (‘Education and training, competence and work’ (Abrahamsson et al. 2002), the focus is primarily on the supply of competence to and in working life. The studies included in the anthology contribute to forming a current picture of the state of research on the interplay between education and training, work, planning of education and training, and learning and teaching.

To conclude, there are, at present, only a few Swedish studies within the research field of vocational educational planning and implementation. When narrowing further down, those with a stakeholder approach are even fewer. Finally, the number of studies of educational planning within vocational education and using a stakeholder perspective are literally non-existent. Thus, the research field is important but gaps do exist. There are practically no studies that show who these stakeholders are or how they co-operate with each other in terms of educational planning.

³ One of the research projects aimed at studying vocational training and knowledge formation in post-war Sweden, while the other project primarily aimed at studying industry’s demand for qualified labour.
2.3  Problem Area of This Study

As suggested in the last section the system of continuing vocational training, both internationally and in Sweden, has a number of important objectives to fulfil. These objectives range from supporting economic growth to social and cultural integration within societies. The topic of this section is to elaborate on some of the problems that emerge when developing new reforms that are set to achieve these important goals. The following section is divided into two different but interrelated problem areas. These areas are the planning of, and the implementation of reforms in continuing vocational training.

2.3.1  Reform Planning in Continuing Vocational Training

Calder and McCollum (1998) stress three aspects that are significant for considering successful development of vocational education and training. These aspects are firstly what should be taught – the range of areas of knowledge and the skills which are taught to trainees. Secondly, who should be taught – which groups in society are to have access to training, and thirdly, in what form the provision should be made available for individuals.

Contemplating these aspects, there are a number of structural developments that challenges reform planning and reform design in continuing vocational training. These developments are, for example, the restructuring within working life and labour market. Another problem is the ongoing developments of decentralisation and regulation of the educational system. A third problem is the increasing number of interest groups involved in the process of policymaking.

Restructuring within Working life and labour market

The developments within Swedish working life and labour market, that took place during the 1980s and in particular the 1990s put large strains on the system of CVT forcing it to adjust. For one thing, the public statistics indicate that during the period from 1980 to 1998 it was foremost the service-based sector that increased its share of the economy (SOU 2000:7). Also the so-called knowledge-intensive sectors including for example financial activities, property, rental, and consultation services grew in the amount of employed during the 1990s, while the development within the ‘traditional’ sectors of manufacturing was considerably weaker during the same period (SCB 2001).

In light of the Swedish economy’s structural transformation, another implication for reform planning is demand for the increased level of education among the workforce. At the beginning of the 1990s it was suggested that the general level
of education within the Swedish workforce was lower than in most of other OECD-countries (SIND 1991:2; SOU 1992:7). Following a number of domestic studies, the results indicated that approximately 50% of the Swedish workforce within the manufacturing industries only had compulsory school education (Aronsson and Sjögren 1994; Ds 1992:83) and that workers with specialist expertise were in short supply in several industry sectors (SAF 1994).

**Decentralisation and Deregulation of the Educational system**

Recognising the importance of a wide and fair distribution of education and training and to facilitate for the rapid advancements in technology and work organisations, a general trend appears to be that centralised control has been reduced to devolve educational planning and decision-making, giving more influence and power to regional and local levels of nations. Yet, in many training systems, the public authorities and agencies continue to bear the ultimate responsibility for regulating the system and determining the roles and responsibilities in the system (Green 1999).

Analysing the decentralisation of the Swedish national education system starting in the late 1980s, Lundahl (2002) has put forward two reasons for the governance strategy. On the one hand, the change could be perceived as an act of improving organisational efficiency, since it was believed that financial resources and the quality of education would be better used if means and methods were decided on regional and local levels. Secondly, the change of national steering strategy could also be perceived as a mirroring of the general trends in the Swedish society following the neo-liberal paths with ideas of market and economy as the main principle. The latter case could be seen by the education policy implemented by the centre-right government in power between 1991 and 1994 which was to create scope for diversity within the education system with the desire of creating freedom for individual pupils and students to choose between different types of schools and institutions of higher education, as well as between study routes. New opportunities were also opened up for private schools organisers to operate within the education system.

**Stakeholder interests**

Calder and McCollum (1998) stress the need to use a stakeholder approach if the effects of the often-conflicting aims, interests and criteria for success of the different interest groups are to be adequately taken into account. It is also important to acknowledge that relationships of power between stakeholders are not static, but indeed varying with time. The idea that educational planning and decision-making should be decentralised from central state level to regional and
local levels in order to have the best effects appears to be favoured by several commentators.

Winterton (2000) argues that the involvement of social partners in the VET system is viewed as critical for the success of VET. In general, involving various social partners in identification of training needs, the curricula and content of training, standards and methods, the VET system attains greater legitimacy than if the providers do it themselves isolated from the needs of industry since the establishing of social dialogue increases both the legitimacy and relevance of training provision.

Similarly, Green (1999) comments on what he means to be the positive effects of stakeholders in the processes, mainly the relative prestige, stability and longevity of the VET system. He argues that without the presence of educationalists, employers and trade unions, vocational education would probably run the risk of becoming narrow, losing relevance towards the worlds of work and would not achieve the functional fit towards labour market relating to job entry requirements, wage determination and labour mobility.

However, as a consequence of government’s request to decentralise the responsibility for educational planning and the invitation to various actors to participate and play a more prominent part in the processes, the number of stakeholders consequently continued to increase rather extensively during the 1990s (Lindensjö and Lundgren 2000). This has resulted in increasing complexity when designing reforms. The complexity is, for example, to be found in the fact that participating actors do not necessarily share the same values or agenda. Rather, it is often stated that participating actors disagree on means, methods and even goals. Hence the process could equally be seen as a ‘tug of war’ of power, influence and financial support.

In the case of vocational education reforms, the process could be regarded as particularly complex. This is because not only are civil administrative and educational bodies involved, but also representatives of employer and employee organisations contribute their individual requests and requirements. After all, developing vocational education reforms implies integration of two very different institutions in society, i.e. labour market and educational system, which at their core are driven by different social and cultural mechanisms.

2.3.2 Reform Implementation in Continuing Vocational Training

In this section, three particular problem areas are considered. These are the introduction of quality management in educational institutions, the concept of
workplace learning, and transition from vocational training programmes to working life.

**Quality Management in Educational Institutions**

In recent years there has been an increasing interest both in Sweden and internationally within the educational field for the introduction of quality management and evaluation models developed herein (Muller and Funnell 1992). This interest can be exemplified by the establishment of quality awards such as the European Quality Award and the Malcolm Baldrige National Quality Award. In Sweden, for instance, a special award for schools, the Swedish Schools Award was established in the mid 1990s.

Generally speaking, evaluation and quality management in the sense that the expectations are met is perceived in some quarters as very important for providing education that is sought after and also fits the demands of working life. One common way to structure and accomplish quality work is use of the concept TQM, Total Quality Management. If should however, also be noted that there is not just one definition of the quality concept, a fact that has been emphasised by, for instance, Garvin (1988), who has classified some of them into the five different approaches: transcendent, product-based, user-based, manufacturing-based, and value-based. When Garvin describes the five approaches, he points out disadvantages with each one of them, and recommends organisations to use multiple perspectives on quality and actively shift between different approaches. This description of quality however, is criticised by Gummesson (1991), who calls attention to the fact that it is focused on goods only and does not adequately account for the service area. But as Gummesson (1991) says, the five approaches show that quality is a complex and indistinct concept that can be applied in many different organisational contexts.

However, there are also criticism and problems addressed with this development. At the heart of this critique of which the introduction of quality management is only one part, is that the role of education in society is placed in jeopardy. This is because the traditional value and purposes of education are being redefined in accordance with quasi-market principles (Miron 1996). From their perspective, education is seen less and less as a means towards self-expression and fulfilment or towards development of cultural and social understanding, but rather regarded as any kind of industry where instrumental parameters of output, quantity and turnover, are more emphasised (Kenway 1994; Kenway et al. 1995).

Underlying this general policy towards a mode of ‘marketisation’, are two central strategies which are deployed in order to ensure that education will cost
the State less and serve the economy directly. One strategy involves intensified government intervention in education. The other strategy, which might sound paradoxical, involves the privatisation and commercialisation of public education. These two strategies, as Kenway et al. (1995) argue, come together in the sense that the state produces the frameworks within which the trends of privatisation and commercialisation develop, the State also promotes certain values to guide these processes, undertaking the ideological work necessary to ensure that they are publicly accepted.

**Concept of Workplace learning**

In implementing continuing vocational training reforms, the responsibility does not lie with educationalists alone, but also with various representatives of working life, including trade unions and employer associations. The mission of renewal at the workplace in the promotion of new work organisations, new patterns of learning and a better utilisation of skills and competencies further emphasises the cooperation and also imposes a challenge for reform implementation.

Perhaps most importantly, education and training is no longer seen as being solely the realm of educational institutions. Rather, education and training is increasingly viewed in terms of a broader network-thinking involving the workplace, educational institutions, individuals and a combination of government, private enterprises and community organisations (Illeris 2003; NCVER 2002; Garrick and Jakupec 2000).

While the emergence of strategies for implementing workplace learning is often hailed as an all-positive innovation bringing people into work and promoting lifelong learning, there are problems associated with this. Fuller, Munro and Rainbird (2004) suggest that concerns could be divided into three research fields or contexts. In the first context, critical issues are related to the political framework and the theoretical underpinnings which together structure the design of and developments within workplace learning models. In the second field, the organisational context is mainly concerned with studying the workplace as a learning environment, focus is upon issues of access to and equity in workplace learning based on social class, race and gender. Fenwick (2001) argues that while the common opinion about workplace learning supposedly leads to emancipation and independence of workers, the concept could also be seen as a tool for indulging an agenda where individuals are more or less inclined to conform themselves with the goals and ambitions of the corporate enterprises. In the third context, criticisms include labour process oriented issues examining the knowledge and values that are transferred (or not) with the learning.
Concern with implementation also has to deal with graduates’ transition from the world of education into the worlds of work. This particular area could be said to involve two different sets of problems. The first area concerns the decision of how the curriculum should be designed, whether it should be specialised into a certain vocation or more general. Theoretically speaking, the first type of training will generally be associated with a smooth transition from education to work, but will perhaps lead to problems if unforeseen developments occur in the future. The second more advanced type of training it is argued is likely to be associated with a more difficult transition from education to work (van Wieringen and Attwell 1999).

The problem of how to best model VET systems with labour markets also has implications from a social-economic perspective, where individuals and employers increasingly demand information about the returns on their investment in training. From the theoretical underpinnings of educational attainment and economic outcomes, VET systems have a history of being regarded with scepticism and also being criticised by economists, particularly those from a neo-classical tradition. The argument for rejecting VET as the hope of economic growth lies mainly in the basic principles of how VET is traditionally organised in comparison to how the labour market functions, neo-classical economists argue (Monk 2000).

To conclude: the section has pointed to a number of structural problems that need to be considered when developing new reforms within continuing vocational training. Hence the problem area shows the importance of exploring how to plan to ‘fit’ to the demands both from industry and commerce, as well as from society at large and those individuals that participate. Further, the problem area also shows the importance of exploring how reforms are being implemented, since this process also exhibits a number of structural and organisational difficulties to be overcome.

2.4 Research Design of This Study

In this section the general research design of this study is outlined. This section starts with an introduction of the study object followed by the aims and research questions that are formulated based on the problem area. Thereafter a presentation of the analytical framework and delimitations of this study is provided. This section concludes by positioning this doctoral thesis into the research disciplines also providing a discussion of its contributions and further disposition.
2.4.1 The Study Object: Swedish Reform of Advanced Vocational Education

In 1996 the Swedish government launched a new form of tertiary vocational education: Advanced Vocational Education (AVE) into the system of Continuing Vocational Training. Starting as an experimental Pilot project, one of the main purposes with AVE was to meet the continually changing demands from industry and commerce for skilled labour.

With AVE several innovative educational features were introduced. For example, one-third of the course programme time is allocated to advanced application of theoretical knowledge at a workplace. The aim is that these courses should not be organised as a traditional traineeship period, but rather revolve around active workplace-based learning and problem solving within an overall educational context. Moreover, programmes were also meant to be developed in close co-operation between enterprises and various course providers such as upper secondary school, municipal adult education, colleges and universities and commercial educators. This was done in order that programmes better correspond to ongoing developments within working life in terms of skills and competences requested.

2.4.2 General Aims and Research Questions

The general aim of this thesis is to gain a deeper theoretical and empirical understanding of how the system of continuing vocational training is maintained, and most importantly, how new reforms such as AVE are formulated, planned and implemented. In particular, by exploring the contextual background to introducing the Swedish reform of Advanced Vocational Education, this thesis aims to contribute empirically to the understanding of the driving forces that together with organised interest groups in society shape the system. Further, this thesis aims by using an analytical model to contribute theoretically to the understandings of the social mechanisms by which interaction between the organised interest groups in society occur. The theoretical aim is also to further elaborate the analytical model in question. Overall, the present research study is of relevance because it fills significant gaps in the empirical and theoretical literature on the topic of planning and implementation within continuing vocational training.

Finally, this thesis also aims to support non-academic practitioners who are interested in or working with questions relating to educational planning, implementation, or of delivering vocational education and training; be that
within the public or private educational institutions in society or within the industry.

Research Questions

In order to clarify the general aims of this study, the three main research questions have been formulated. The first research question is formulated as follows:

1. What are the main driving forces behind the formulation of the reform in Advanced Vocational Education?

The first research question refers to the international trends within working life and labour market conditions that are believed to influence national educational policymaking. The question also refers to the domestic conditions insofar that national educational and labour market concerns are considered.

The second general research question is formulated as such:

2. How was the reform with Advanced Vocational Education implemented into the Swedish educational system of Continuing Vocational Training?

This question refers to the process by which AVE went from being initially designed on a central level, to the actual form when first launched as a pilot project. By form it is meant for example, principles of steering, organisational structure and content, and framework of educational providers.

The third general research question is formulated as follows:

3. What are the main results and experiences of the reform with Advanced Vocational Education?

This third research question refers to what the general opinions about AVE are, seen from the perspectives of participating students, educationalists and other concerned observers. In particular, this question refers to the experiences of educationalists, attitudes towards system evaluation and graduates’ transition from AVE into working life.
2.4.3 Analytical Framework

By now it should be clear that development and implementation of vocational education reforms is a rather complex process that involves different stakeholders in society. In order to analyse the process, this study is embedded within an analytical framework based on the model of educational reform development based on the works by Lindensjö and Lundgren (1986, 2000). This means that the study is divided into two main research themes that cover different parts of the educational reform process. While the first main theme focuses on the context of formulation, the second theme is concentrated to the context of realisation which focuses on the implementation of the reform of AVE. This analytical framework is in turn complemented by the theoretical concepts of planning, steering and implementation. The theoretical perspectives and analytical framework applied in this study is elaborated in chapter 3.

2.4.4 Discipline of the Thesis

As indicated in section 2.1.3, the concept of vocational education and training is multifaceted and not entirely easy to distinctly define. Similarly, when trying to position research studies that build on that concept within the established scientific disciplines, similar problems with a clear-cut identification emerge.

Considering this present study exploring the formulation and realisation with the reform of advanced vocational training, it follows the abovementioned tradition, being cross-disciplinary in style. Based on the choices of research design, methods and theoretical and analytical perspectives, the present study is essentially inspired by three different research disciplines. Using the theoretical concepts of planning, steering and implementation, this study contributes mainly to the discipline of Political science. This is the case with the choice of analytical framework which has also, however, been used by studies within the discipline of pedagogy.

Furthermore, exploring the realisation of the reform of advanced vocational education in terms of organisational structure and content including the design of workplace learning, the present study is also relevant to the discipline of Sociology of Education. Finally, by exploring the relationship between AVE and how the reform corresponds to the developments and requests by representatives of working life, the study relates to the discipline of Human Work Sciences.
2.4.5 Delimitations

As with probably any extensive project, there are areas and issues considered to be important for investigation at first. However due to various and sometimes even unforeseen reasons, which is a part of the dynamic research process, some of these issues are altered or excluded altogether. With this understanding in mind, the author of this thesis would like to address the delimitations made.

Firstly, the author of this doctoral thesis was not able to present all the themes and issues arising from the data gathered. Within the context of realisation, emphasis is not put on analysing the design of the curricula or the pedagogical processes within the programmes of AVE. In addition, the pedagogical underpinnings for performing workplace learning have not been explored in depth either. Neither has the concept of gender and ethnicity been examined and analysed. The author of this thesis acknowledges their importance, however, keeping the study within the boundaries of the three research disciplines described above, these issues have been excluded.

Secondly, the author has tried to avoid major overlaps but there are some points where bits of data or points of analysis are repeated. However, this is probably inevitable because of the interrelated and inter-affecting nature of the study object examined. Policy planning has direct implications for the implementation, management is closely related to the market, decisions of main stakeholders have implications for the students, participation and views have implications on the educationalist etc. Thus, in a way, this thesis should not be read as a neat, single narrative, but rather as a set of overlaid and overlapping ways of seeing the reform with AVE from different perspectives.

Thirdly, although this study is about planning and implementation within continuing vocational training, this study does not comprise nor discuss any models of occupational forecasting. Hence the technical aspects of educational planning including the use of macro-econometrical models whereby long-term labour market demands and national supply of workforce within the labour market are estimated (Burns and Shanahan 2000; Tessaring 2000) are not applied.

2.4.6 Further Disposition

This doctoral thesis summary comprises six chapters where in the first two, reflections on developments within working life and education and training are provided, followed by the conceptual definition, objectives and research issues in continuing vocational training. The contextual background is thereafter
followed by the problem area and the research design of this study where the object of this study, the reform of Advanced Vocational Education is presented.

In the third chapter, the theoretical and analytical framework of this study is presented. The theoretical parts build partly upon the concepts of educational planning, steering and implementation. The analytical perspective which is introduced in order to understand educational reform development draws upon the works of Lindensjö and Lundgren (1986; 2000). In the fourth chapter, the research strategies, data and methodology of this study are outlined. The chapter starts with a presentation of the case study methodology that has been the main research strategy used. After that a presentation of methodology and the procedure applied in each of the six appended papers is provided. The fourth chapter concludes with a discussion of validity and reliability issues for the appended papers.

In the fifth chapter, the results of the six empirical studies are summarised. The results are presented following the analytical framework of formulation and realisation contexts as presented in chapter three. In this chapter, a more detailed presentation of the formulation and realisation of AVE is offered. In the sixth and final chapter, the research results are analysed by using the theoretical and analytical frameworks presented in chapter three. The chapter concludes with a discussion on the research implications of the theoretical and analytical framework used and further research implications.
3 THEORETICAL AND ANALYTICAL PERSPECTIVES

This third chapter introduces the theoretical and analytical perspectives used in this study. This chapter begins with an introductory discussion of different perspectives on planning, steering and implementation of educational reforms. After that the analytical model based on contexts of formulation and realisation is presented. The chapter concludes with remarks on the analytical strengths and delimitations of the model.

3.1 Introduction

The interaction between the educational system and labour market has occupied a large number of scholars. Referring to the classical thinkers within Sociology, Durkheim (1911/1956) discussed education as a socially determined institution and that the education system in principal has two key roles. On the one hand, the education system functions as an agent for socialisation of the young people into society. This includes the preparation for their future roles. On the other hand, Durkheim (1911/1956) stressed the educational system's function as a selection mechanism in society by which individuals end up on the 'right' place within the occupational structure.

With respect to contemporary commentators, there are a number of competing theoretical visions about relationships between the two institutions. Stressing the centrality of a link between educational system and the economy, Gintis and Bowles (1981/1988) developed the so-called 'correspondence theory' which gained considerable interest and debate. With the theory, the two sociologists argue that the educational system has a limited degree of autonomy within the society and is basically subjected to the needs of the current capitalistic production system. Hence particular forms of schooling are linked to particular positions in a hierarchical division of labour serving to reproduce the workforce in relation to the needs of capital.

Having received much criticism for not considering both theoretical and empirical evidences (see Whitty 1992), Moore (1988) has continued to develop the correspondence theory further suggesting that both the educational and the occupational systems should be seen as two distinctive sites of production with their own inherent logic and possibilities for interaction, thus downplaying the assertion by Gintis and Bowles (1981/1988) of a one-way exercise of capitalistic power. Contrasting the Neo-Marxist perspective, two other American sociologists Chubb and Moe (1988/1997) suggested that the public educational system has become too much of a bureaucratic colossus, preventing individual choices and decision-making. Promoting a more liberal and market-oriented
perspective, they argue for de-regulation, stressing that more concern for what industry and commerce really require should be taken into account.

One of theoretical ‘flaws’ with the correspondence theory is the inability to include the role of the State and its ambitions of both forming and mediating with the institutions in society including the educational, economy and the labour market. Supporting this broader analytical approach, Dale (1989) argues that the role of the contemporary State is complex and faces three essential tasks: support of the capital accumulation process; guaranteeing a context for its continuing expansion and securing consent of the maintenance of the capitalist mode of production. Fulfilling these tasks, the State has to respond to a number of influences and its role is basically grounded on what Dale (1989) denotes as the ‘exclusionary’ principle of selection. This means that on the one hand the State will reject any proposition restructuring the educational system that threatens the long-term progress of capital accumulation. On the other hand, however, striving for legitimacy amongst its citizens, the State will be supporting public actions that appear to be in conflict with capital accumulation by for example increasing taxation and public expenditure.

From these few examples of theoretical directions, understanding how systems of vocational education and training interact with society and the labour market is a very complex task. In the quest for a comprehensive understanding, Gesser (1985) is rather sceptical since there are still few ‘hard facts’ learned about the causal relationships that exist between the two institutions. The difficulty of sustaining the assumption that there is a straightforward relationship between education and industrialisation of Western countries is also addressed by Whitty (1992). According to Gesser (1985) it would therefore be more fruitful to select and analyse one segment of the relationship rather than analysing the entirety of the institutions.

Focusing on one of the segments, vocational education can be seen as an arena where several interest groups struggle to exert their influence over the contents of the education and training (Nilsson 1998; Anderson et al. 2004; Calder and McCollum 1998; Lassnigg 2001). One of the most important parts of this arena, and where the interest groups make most efforts is in the work of reforming the system. Hence, in the following particular interest will be focused on the processes of educational reform development within CVT.

3.2 Research on Educational Reform Development

From an international perspective the research field of educational reform development is vast and not easy to survey. However, when delimiting that field to reform processes within continuing vocational training in Western countries,
the number of published studies is somewhat easier to get a general overview of. In the following section, focus centres on the processes within reform development. These are the concepts of planning, steering and implementation.

3.2.1 Concept of Planning and Steering

The concept of planning is broad and used at different levels in society. However, one applicable definition is that planning is a process-based activity that starts from a normative view of how the future should look in a certain aspect and then from that, certain measures are taken to meet these expectancies also considering the long-term consequences by these actions (Andersson and Ingelstam 1979).

In a broader sense educational planning also relates to the concepts of steering and coordination. This is particularly observed within vocational educational. Since one of the main purposes of it is to ensure that training meets the demands by the labour market, VET as an institution in society crosses system boundaries with general education, higher education, representatives of working life etc. Hence there are various organised interest groups involved whose demands and opinions are to be considered.

Lassnigg (2001) asserts that in understanding the current approaches of steering and coordination, one has first to grasp the changing principles of organisation of VET occurring over the last few decades. Characterising VET as a combination of informal learning at the workplace and formal activities in separate courses provided by outside organisations, strategies for steering and coordination have essentially been conditioned by the characteristics of the links and distances between the two contexts. In the 1950s and 1960s the main principle for steering and coordination was the State bureaucratic model. Characteristic of this model was the belief in centralised, rational, instrumental planning. Methods used were legislation and quantitative monitoring of certain statistical parameters to enforce effects on the population. In the late 1970s and 1980s following the debate of the ‘crisis of the welfare-state’, critical of this central level, technocratic planning increasingly emerged. Amid pressure for deregulation, decentralisation and devolution of the educational systems, the bureaucratic principle was to some extent replaced or rather interwoven with the principle of market mechanisms. New intermediate bodies, agencies, trusts etc. focusing on leadership, management, competition and choice rather than traditional structures emerged (Lindensjö and Lundgren 2000).

Elaborating options for and mechanisms of steering and coordination based on social interaction patterns between participants within the educational and
employment systems, Lassnigg (2001) contends there are four general models distinguishable. These models are: bureaucracy, market, association and networks. While the significant traits of the dichotomy models of bureaucracy and market have been mentioned above, the intermediate model of association implies that coordination is prompted through organised relations between participants who share similar interests, with consensus-based negotiating systems playing a central role. Finally, the significant trait with the Network model is the direct and informal ties that exist between participants. Rather than money or formal authority as with the bureaucracy or market models, coordination builds on long-standing trust and reciprocity. This model is increasingly acknowledged due to developments in organisational theory of ‘Neo-intuitionalism’ (see Crouch et al. 1999).

In terms of educational policymaking of continuing vocational training, that which is striking is the responsibility that cuts across the institutions of education and representatives of working life. According to Björnåvold (2001), education, and especially vocational education and training in Scandinavia, is very much a tripartite matter of concern. The four countries share important common traditions in the area of education and training. Mutual learning has been an important aspect of the development of national systems and a shared Nordic labour market has made cross-border transfer of competences a normal and accepted matter of fact. The steering of training is based on the participation and influences of State employers as well as employees.

3.2.2 Concept of Implementation

The process of implementation is, at face level, seen as the natural next step when developing educational reforms. What has earlier been planned and coordinated is now to be established into a certain context (Ahlgren and Gummesson 2001).

Sannerstedt (1992; 1997) argues there are three general models of implementation processes. These are the Rationalistic model, Grass-root model, and Network model. The first model (Rationalistic) stems from the traditional view upon how the parliament, government or any other democratically elected public body is completely in charge of developments and, hence, makes formal decision of actions that are then later handed over and ‘down’ to the organisations in society. Consequently, these organisations are then supposed to operationalise the formal intentions made by the decision-makers without any distortions in terms of personal opinions, view or cultural disagreements. In this perspective, the various organisations and public bodies in society becomes a tool for the ruling authorities.
With the second model (Grass-root), the perspective is the opposite. The basic assumption is that people within the public organisations working with various issues on a daily basis, have large degrees of freedom on how to interpret the formal decisions made earlier. In fact, the proponents of the Grass-root model (see Lipsky, 1980) suggest that because of these large degrees of freedom, it is the individual professionals (doctors, social workers, teachers etc.) that actually maintain and develop the reforms within their specific area, not the formal authorities.

While these two models can be seen as opposites of the implementation perspective scale, the third envisaged model, which borrows part of both previous models, has been proposed during recent years. Proponents of the Network model suggest that political reforms are being developed in collaboration between a variety of actors and interest groups in society. Since these actors have different agendas, the process of implementation is characterised by mutual interests as well as strong disagreements. The whole process will therefore have the characteristic of continuous negotiations. Moreover, in the Network model, the roles and arrangements between the interest groups are not static as with the Rationalistic model, but more based on informality and loose affiliations. Hence, a typical characteristic of the Network model is that the number of interest groups and how they interact with each other is not predetermined, but rather appears like a matrix of constant change.

3.2.3 Relationship between Planning and Implementation

Commenting on the relationship between concepts of planning and implementation, Sannerstedt (1992; 1997) identifies four difficulties. Firstly, any reform involves a lot of people. A problem is that people who are responsible for or participating in the planning and decision-making process, are often the same people responsible for the implementation which could cause biases. Secondly, because of the increasing speed for which political reforms are required to be established, it is not unusual that the process are being reversed, i.e. that implementation is done before the formal planning and decisions are made. According to Brunsson and Winberg (1990) the strategy of reversing reform processes is a way to achieve consensus between policy-makers and practitioners. This is because practitioners will have the freedom trying out and correcting the unofficial intentions of the reform while not yet being burdened by legislation. The experiences that the practitioners gain is then feed-back into the political system, which sends a message to the politicians and their affiliates that their original plans and considerations may not be absolutely correct, but still much in line with public interests.
Thirdly, because many of the reforms are so complex and have to cover a variety of current and future situations that are very difficult to foresee, actual decisions and instructions that are handed over to practitioners are to a growing extent unclear and loosely formulated. The development of a certain reform is on-going and does not stop just because the political decision is made unleashing new ideas on how it should be run on a daily basis. Hence it is common that practitioners re-formulate and re-interpret formal decisions in their daily work. This process clearly challenges or could even alter the purpose for which a certain reform was implemented in the first place. Fourthly, the notion that it is a single political decision that is to be implemented is not always true. Rather, reform implementation is often about a linking a constellation of various public reforms together where some of these are already operational and others are still in the making.

3.3 Modelling Educational Reform Development

Lindensjö and Lundgren have in a series of works (1986; 2000) developed an analytical model for the theoretical underpinnings of educational reform processes. The model has been directly or indirectly used in a number of educational, sociological and pedagogical research studies in recent years (Hultman 1992; Blomsterberg 1996; Kim 1998; Furåker 2001; Ahlgren and Gummesson 2000; Hedlund 2004).

Starting with presenting the problem of political governing which they see as two-fold: the making of decisions, and secondly, the executing or implementation of these decisions, Lindensjö and Lundgren argue that these two activities are different and often ruled by incompatible contingencies. The discrepancy between the reality where the goals are formulated and the reality where decisions are supposed to be implemented may be so significant that it may be difficult to bridge between. This discrepancy leads to what the authors call 'the paradox of reproduction'. The paradox emerges because of the double action and role of the educational system in society, which in turn causes a double identity towards society which is shown in the two stages of planning and implementation of education. On the one hand, education is supposed to be an efficient tool for progressiveness within the modern society. On the other hand, the education system is obliged to adjust itself to contemporary society's wishes and demands of equity and social inclusion.

This paradox, they suggest, has in turn principally lead to two phenomena. Firstly, there is a clear demarcation between the decisions of targets and contents of educational reforms and, secondly, methods for how these targets are being implemented into the educational infrastructure. The planning targets perceived are policy instruments that express the normative desires of society.
At the same time, the detail planning requires a detailed analysis of present and future demand and supply patterns in society. These highly sophisticated analyses require in turn specialists, which causes a splitting into two separate spheres: a political and an administrative one. Conclusively, they suggest that the educational reform development could be analysed as two different phases involving different sets of views. These phases are denoted as the Context of formulation and Context of realisation, which are further explored in the next two sections.

3.3.1 Context of Formulation

The context of formulation, Lundgren and Lindensjö (2000) mainly attributes to the processes of central level politics and policymaking. It is in this context that aims and targets for educational reforms are initially set. Of many difficulties that are associated with this context and also related to the previously described concepts of steering and coordination, are the diminishing financial and organisational resources available and the increasing number of interest groups involved.

Considering the lack of resources, this suggests that when a new reform is to be designed, this is often done at the expense of some nearby activities that then run the risk of being shut down or abandoned. This decision triggers the well-organised interest groups, both those supporting the new proposal, and those who have an interest in the continuation of the existing activity. However as Lindensjö and Lundgren (2000) argue, these well-organised interest groups - stakeholders - have played this game together many times before. The loud voicing in the beginning marks a familiar pattern where disagreements by various processes are forged into consensus. These processes comprise formal and informal contacts between Government, opposition, organised interests and National Authorities. A key to these compromises are that fundamental ideas, attitudes and forces of strength are taken into account.

3.3.2 Context of Realisation

In the corresponding context which Lindensjö and Lundgren (1986) denote as realisation, much of the work is focused on administration and management issues. Here the decisions made earlier in the formulation context are supposed to be implemented into the concerned institutions.

On this level, other stakeholders participate. The rules of the ‘game’ here are decided by local power structures and other conditions. In this context, the
decisions made at national level, are perceived as shallow and somewhat, coerced by necessity and local stakeholders suggest that the possible conflicts and problems are not taken care of. Consequently, the individual in charge interprets the decisions from the goals and resources there are at face value, i.e. making them fit into the ongoing or planned processes. Lindensjö and Lundgren stress the importance these local practitioners play in the implementation. Their importance has increased during recent years for two reasons. Firstly, through the national processes of de-centralisation, the central State does not have the insight or control over what is happening in detail, relegating the responsibility downwards. Secondly, since the position of local practitioners is not immediately affected by changes in government power, this suggests a more coherent and uninterrupted educational organisation.

Recalling or re-phrasing central level decisions can take place in different phases of implementation. Lindensjö and Lundgren (2000) distinguish between two levels. The first level is called ‘guideline-writing’ where civil servants interpret political decisions made before they are transformed into a regulating framework. The second level where recalling of decision can occur is at what Lindensjö and Lundgren denote as ‘field implementation’, that is at the level where a reform is actually at work – in the classrooms. With regard to the latter level, Lindensjö and Lundgren (1986) assert that important impediments to implementation of educational reforms are often hidden in the institutions or activities that are to be reformed, or in the processes whereby they are to be reformed. The sheer fact that a certain way of performing educational activities is to be changed could be enough to fuse counter measures at the local level. If individuals’ values and attitudes are not coherent with these reforms, they will resist it and, consequently, try to alter the reform planning from their point of view.

To conclude, both contexts –formulation and realisation – work to a large extent independently of each other, using different sets of logic. This is not a new phenomenon but rather a common problem within the democratic system, where there are on the one hand the political representatives, authorities and interest groups that decide, and on the other the bureaucracy that is in place to realise those goals. To further complicate the situation, within the formulation context, focus has broadened from considering domestic concerns to also include international agendas and topics as a consequence of the increasing integration of economies and multilateral agreements. Complicating the context of realisation is the emerging presence of the media whose opportunism and angle of coverage and interpretation of various reform plans could jeopardise demands for objectivity.
3.4 Perspectives of Reform Formulation

Following the analytical model on educational reform development by Lindensjö and Lundgren (1986; 2000), the two contexts imply rather separate and diversified processes in comparison with each other. In the following section, different perspectives and input into the process of reform formulation are discussed.

3.4.1 International Influences and Trends

Some of the most important international input on educational reform developments in vocational education, is what is commonly denoted as the ‘Megatrends’ in contemporary society (CEDEFOP, 2000). Being a highly contested and problematic concept, Unwin and Hodkinson (2002) suggest that Megatrends or macro-context issues could be disaggregated into three interrelated categories: underlying changes, underlying continuities and surface discourses. Underlying changes refers to economic globalisation and technological innovation in working life. Underlying continuities speaks of the political, social and cultural movements, and surface discourses are the adjacent concepts of flexibility, mobility and transferability. Consequently, Megatrends are to a varying degree found in most countries of the European Union, in central and Eastern Europe but also in the USA and of the Pacific Rim (COST, 1997).

The surface discourses voice the underlying changes and continuities and are very influential in the international literature, affecting national developments in VET policy. Consequently, many of the national systems are allegedly becoming more focusing on flexibility, promoting lifelong learning and closer co-operation with industry and commerce. Additionally, efforts and funding are spent on developing the VET systems ability to promote mobility and transferability as well. The design of these efforts does, however, vary depending on the national contexts in terms of economical, social and cultural traditions (Ashton 2004).

Nijhof and Streumer (1994) argue that flexibility is a complex phenomenon that has different conceptual underpinnings depending on which category of the system one is concerned with. Differentiating the system in the categories of input; process and output, Nijhof and Streumer (1994), suggest that flexibility is a systems level concept, superior to transferability and mobility, having a central impact on the VET system in three different senses. In the first category, input, flexibility takes the form of responsiveness by which VET institutions make decisions and counteract the surrounding contextual factors, i.e. Megatrends,
creating constant pressure for change. In the second category, process, flexibility has to do with the internal processes inside individual VET institutions. Flexibility in this sense means how well institutions manage adapting to new situations including developing new curriculum, training the trainers and using new technology, providing the students with necessary study tools and techniques meeting changing requirements in working life (See also Ozaki 1999). The main assumption underpinning this sense of flexibility is the concept of transferability, defined as the individual competence to learn and apply new skills in new situations.

In the third category, output, flexibility has to do with what kind of skills, combination of skills and key qualifications VET institutions provide their students with. In this part of the system, flexibility coincides with the concept of mobility, which is defined by how well VET institutions enable students to, at first, enter the labour market and, later on successfully move from one employer to another, thus creating desired career patterns.

While the surface discourses are undoubtedly disseminated into the educational political rhetoric, there are a number of researchers challenging the meaning and the actual impact. Coffield (2002) recognises that since flexibility has different meanings depending on which national, social and cultural context it is applied within, the concept has in itself become so overloaded that any discussion must start with a clarification for each particular meaning. Coffield (2002) also challenges the notion that labour markets have become flexible, pointing to the discrepancies that appear to exist between rhetoric and practice.

3.4.2 Educational Policymaking

The research field of educational policymaking is diverse and to some extent uncertain since there are several competing theoretical approaches of understanding (Ozga 2000; Hill 1993). In the UK, recent studies have mainly focused on two different aspects. While the first aspect has, in general, involved a focus on how educational policy is generated in society, using a macro-related approach by analysing policy documents, the second aspect has focused on how educational policy is implemented into various communities and school organisations, using small-sample ethnographical models of research design (Ball 1990; Bowe et al. 1992; Ranson 1995).

In Sweden, the research field constitutes a much smaller body of knowledge, but has followed a similar pattern to that in the UK. The studies, with some exceptions, focus on the educational policy process from a macro level. For example, Rothstein (1992) analyses the foundations of the corporate model and
the historical reasons for trade unions and employer associations’ vast influence in domestic politics including educational issues. Using a more sociological perspective, Lundahl (1997) studies the two largest employer and employee confederations (SAF and LO, respectively) and the influence they had on education politics including vocational education in Sweden between 1944 and 1990. Similarly, but paying more attention to the economic aspects, Olofsson (1997) studies the policy strategies from 1930 to 1970, when the importance diminished of the Joint Industrial Training Council, which includes the largest employer and employee confederations.

3.4.3 Stakeholders

Research in various fields such as policy and educational sociology, management theory, and political science have together provided an interesting alternative way of analysing the process of educational policymaking and implementation by regarding the various actors involved as stakeholders. In addition, researchers have identified the stakeholders and how the process of educational planning and implementation varies between countries depending on their history, political system, and socio-economical structure (Finlay et al. 1998).

The concept of stakeholder originally stems from management theory (Näsi 1995). With the neo-liberal expansion signified by the market discourse in the beginning of the 1980s, the concept gradually diffused from the commercial to the political and educational arena (Finlay et al. 1998). Since the mid 1990s, a growing number of studies have analysed policy changes and developments; in addition, studies about VET have used the concept of stakeholder (Ax 1999; Brand 1997; Finlay et al. 1998; NCVER 2001; Robinson 2000).

By definition, Johnson and Scholes (1999) suggest that stakeholders are individuals or organisations that can either influence or be affected by an organisation’s actions. Mitroff (1983) suggests that one should distinguish between internal and external stakeholders. In the vocational education and training context, internal stakeholders are those single individuals, groups or organisations who affect and impact change within the VET-system from the inside, for example, students, teachers, curriculum writers, single education organisations, and training providers. Conversely, external stakeholders are trade union confederations, national authorities, trade associations, large companies, lobbyists, who exert their influence and impact change on VET from the outside, i.e. macro-educational arena. Narrowing the definition somewhat further in order to delimit stakeholders from other non-relevant subjects, Mitroff (1983) argues that stakeholders have at least one of the following six features
including: Purpose and motivation; Control over resources; Special knowledge and views; Beliefs; Physical and positional resources; and Commitment (legal or otherwise).

Inevitably, conflict arises when educational policy planning involves several stakeholders. Mitroff (1983) argues that any kind of policymaking process involving several different stakeholders should not be regarded as an easy, linear process. Because stakeholders often have different motives and objectives, they do not generally share the same view about problems and solutions. Thus, the process of involving stakeholders generally becomes a complex and messy method. Hidden agendas and the fact that power and influence is unevenly distributed among the stakeholders, also results in conflict (see also Ranson 1995). Consequently, the most influential groups often set the agenda and, thus provide the solutions.

Conversely, educational policymaking involving stakeholders also provides an opportunity for consensus building. Exploring the basic principles for achieving consensus by studying developments of VET systems within eight different countries around the world, Finlay et al. (1998) suggest four important strategies. First, there is a need for a joint recognition of the need for a change to take place. Recognition is often set by external stimuli such as a competitive threat or a common enemy (unemployment) that can lead to a united front taken by the stakeholders. Second, although there are tensions between achieving consensus and keeping diverse views alive, this does not mean that the two positions are mutually exclusive. It is quite possible that all stakeholders could accept the outcome without necessarily agreeing on every point. It is important to establish a set of shared values; this means that stakeholders can respect the views of other stakeholders and consequently be able to ‘live with’ the final outcome. It is important to reach early agreements on important goals. Thirdly, there must be top-down and down-top involvement. Fourthly, groups or individuals that have been excluded ought to be given access and resources to follow the policy process from the inside (Finlay et al. 1998).

3.5 Perspectives of Reform Realisation

From the perspectives of formulation, focus is now turned to the perspectives of realisation. In general, reforms within continuing vocational training should result in the advancement of individuals’ skills and competences in order to develop themselves and to fit into the occupational structure of society, i.e. qualifying for a job. In the following, aspects of quality assurance and evaluation, workplace learning and transition from education to work are considered.
3.5.1 Quality Management and Evaluation

Within higher education, the interest for quality management and continuous improvements has increased in Sweden since the beginning of the 1990s when society began to appreciate more formalised models of measurements and evaluations. There are mainly two motives behind this development. Firstly, evaluation for improving quality is perceived by the educational organisers to be particularly important in keeping a competitive edge on the growing market of private education- and training companies in Sweden (Lindell, 2001). Secondly, the models illustrate the importance of taking advantage of various stakeholders’ needs and expectations in the best way possible.

3.5.2 Workplace Learning

The concept of workplace learning is deemed to be among the highest priorities of western economies. One of the reasons behind this development is that education and training is no longer seen as being solely the realm of educational institutions. Rather, education and training is increasingly viewed in terms of a broader system thinking involving workplaces, educational institutions, individuals and a variety of government and community organisations (Illeris 2003; NCVER 2002).

The motives for pursuing workplace learning are, besides pure economical reasons also educational, social and cultural (Garrick and Jakupec 2000). Hence the suggested benefits are multiple. Taking a managerial perspective, Sauter (1999) stresses that workplace learning enables rapid application of what has been learnt to cope with the growing volume of work and more stringent quality requirements. Similarly, Curtain (2000) suggests that workplace learning offers at least three sets of benefits which at the same time link educators and working life together. Firstly, employers can demonstrate to students the skills needed, and hence reinforce the value of relevant education. Secondly, students gain a better appreciation of how and why classroom performance is important in their future career, and therefore exert more effort. Thirdly, teachers accrue additional authority towards students based on when they have a close association with future employers.

From the context of realisation, the concept of ‘situated learning’ as developed by Lave and Wenger (1991) and Wenger (1998) is very interesting. In their work on how the relations of legitimate peripheral relations and communities of practice underpin learning and identity formation, Lave and Wenger argue that the purpose with students spending several weeks and sometimes even months at a workplace is not only for testing and improving their practical skills,
abilities and theoretical knowledge under real circumstances. Equally important, in sharing everyday practices with the supervisor and others learning the informal rules, values and ethics connected with the vocation the students are intended to become socialised into the profession, and thus mainstream members of the workforce in a manner that simply cannot be taught by school-based training only.

While the emergence of strategies for implementing workplace learning is often hailed as an all-positive innovation bringing people into work and promoting lifelong learning, there are also negative aspects associated with the concept that need to be addressed and critically examined. For one thing, this globally disseminated concept has many different connotations, causing confusion as to what it actually comprises. Indeed, depending on the context apprenticeships, traineeships, work-based degrees, continuing vocational and professional education, could equally be labelled as different categories of ‘workplace learning’ (Forrester and McTigue 2004).

Fenwick (2001) suggests that because the concept of workplace learning builds on the assumptions of a positive correlation between education and productivity based on human capital theory, which in turn are embedded within the market discourse supporting the neo-liberal ideology of global capitalism, the fundamental question to ask is who actually benefits from learning. In her critical analysis, Fenwick (2001) argues that while the common opinion about workplace learning supposedly leads to emancipation and independence of workers, the concept could also be seen as a tool for indulging an agenda where individuals are more or less inclined to conform themselves with the goals and ambitions of the corporate enterprises.

### 3.5.3 Transition from Education to Work

As the society and labour market has become more complex, so the mechanisms for school-to-work transition have also become more sophisticated. There are two main reasons for this. Firstly, the economic and socio-demographic context within which school-to-work transitions occur in Europe has changed significantly over time. For example, reporting from the CATEWE\(^4\) project, Hannan et al. (2001) found that the changes vary between countries and outlined three relevant aspects of these: relative youth/adult demographic and unemployment rates and characteristics; significant increases over time in the median ages of entry to the labour market, as young people stay longer in full time education and search longer for a permanent acceptable job, but also increasing variances in the age of entering the labour market; wide national

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\(^4\) Comparative Analysis of Transitions for Education to Work in Europe.
differences in unemployment rates by level of education. Hence, there is a significant growth in the extent to which ‘mixed statuses’, i.e. work and education occur.

Secondly, there has been a cultural shift following that individuals are not compliant, conformative and passive beings regarding decisions of education and career patterns. In particular, the life experiences of young people have changed significantly over the two last decades (Furlong and Cartmel 1997). Due to the difficulties of entering the labour market without substantial formal qualifications and work experiences, young people are forced to reflexively negotiate a complex maze of routes into the labour market and at the same time develop a sense that they alone are responsible for their labour market outcomes. Hence they embark on different courses of study, receive training in a number of different contexts and spend time both out of work and in employment. Today, few young people share identical sets of experiences and most encounter situations where they are able to select between competing sets of alternative pathways. As a consequence, the ‘old’ theories of school-to-work transition where socialisation played the key part could no longer be defended, and the need grew to develop post-modern theories which are structured on individualisation and reflexivity (Rudd 1997).

3.6 Concluding remarks

This chapter has introduced the theoretical perspectives and analytical framework which this study is embedded within. Exploring the complex process with reform development in continuing vocational training, this chapter has outlined some perspectives on the basic concepts involved. Introducing an analytical model, this chapter has not only aimed to frame (contextualise) the adjacent concepts of planning, steering and implementation, but also allocate (house) the theoretical perspectives related to the different contexts.

Considering the analytical model, one of the advantages is its ability to encapsulate the complex organisational issues that are raised in educational reform. By addressing the development in terms of contexts of formulation and realisation, the model provides the researcher freedom to define what is essential, and hence interesting to elaborate further theoretically and empirically.

Being a simplistic image of reality the model has, however, also a number of delimitations to address. Firstly, in its dichotomised design the model is by previous research studies perceived as lacking the capacity to grasp the many dimensions of interaction between the stakeholders involved (Ahlgren and Gummesson 2000). A second delimiting characteristic is the evidence from other studies suggesting that reform processes are sometimes being reversed, i.e.
reforms are being implemented before the political decision is made (Sannerstedt 1992; 1997). This in turn indicates that the two analytical contexts in the model are not as independent of each other as suggested by Lindensjö and Lundgren (1986; 2000), but rather the contexts are much intertwined (Hultman 1992). The notion of an intertwined reform process is interesting since this leaves space for heuristic analysis of what is happening when the two contexts initially meet, and how this interaction develops, which is also one of the theoretical aims of this doctoral thesis to elaborate with the case of AVE.
This fourth chapter presents the methodological considerations, data gathering and research procedures of this study. The purpose of this chapter is to integrate the methodological issues with the empirical data. This chapter starts with an introduction of the general methodological paradigms that are at the disposal of the researcher and what they stand for. In the next section, a summary of how the evaluation of advanced vocational education was designed is presented. In the third section the research procedures applied in this study are elaborated. The chapter concludes with a methodological discussion concerning the validity and reliability issues of the case studies.

4.1 Case Study Method

At a first glance, Case study method (CSM) is often defined as a generic term for an empirical investigation of a contemporary phenomenon within a real-life context. CSM is deemed to be a suitable strategy when addressing questions like “how” and “why” and where the researcher has little control over events (see Yin 1994).

Being labelled as generic reveals that there is a range of contradictory perceptions and understandings within the scientific community as to what CSM stands for, and what its conceptual boundaries are. For example, Hammersley and Gomm (2000) suggest that what distinguishes CSM from other methods is the few number of cases that are involved in the research process, and also the level of detailed information about the selected cases that are gathered.

Reviewing a sample of recently published statements, Bassey (1999) concludes that although it is not really possible to present a strict coherent definition, CSM does not implicate a particular set of standardised methods for data collection or analysis, but is eclectic in style. Hence one of the often commented benefits of CSM is the many options the researcher has in designing the process including what should constitute the case - be it a single individual, an organisation, a community or a single reform within an educational system - and choice of instruments for data gathering. Hence, with its broad and permissive range of definition, case study method is in some quarters broadly defined as a research paradigm housing both qualitative and quantitative approaches (Sturman 1999).

That case study method is advocated by researchers from different scientific fields and traditions has implied that a number of certain types of CSM have emerged (Smith 2000). Focusing on the qualitative approaches of CSM, Stake (1995) distinguishes between intrinsic and instrumental case studies. By intrinsic studies Stake refers to research into a particular situation for its own sake,
irrespective of contextual concerns. Contrastingly, with instrumental case studies, first priority is to achieve a general understanding of a phenomenon and by studying a single case the researcher might gain better insight into that phenomenon.

Stenhouse (1988) suggests there are four main broad styles which in their own way contribute to theoretical thinking. These types are Ethnographic, Evaluative, Action research and Educational case studies. With Ethnographic the focus is upon understanding human societies and cultures through in-depth observation and interpretation of inter-cultural relations. These types of studies do not usually relate directly to the practical needs of actors in the case. With Evaluative case studies, a single case or a collection of cases is studied in-depth with the common purpose of providing decision-makers with information helping them merit the worth of implemented policies, programmes or established institutions. The main methods for data collection are interviews coupled with observant participation. Within Action research case studies, the focus is on bringing about change in the case under study by feedback of information which could guide revision and refinement during the time of study. Finally, within Educational case studies the purpose is to adopt strategies to enrich the thinking and discourse of educational reforms, organisations or educators as professionals by systematic and reflective documentation of experiences.

4.1.1 Case Study in Educational Contexts

Elaborating educational case studies further, Smith (2000) suggests that case study method has at least four advantages for research into vocational training at the organisational level. Firstly, having the character of an open methodology, case study method is well suited to exploratory research which allows other factors that have not been anticipated beforehand to enter the research model during the research process. Secondly, considering case study method as an integrated unit of analysis, this systems approach permits a number of research methods to be used within that system. Hence, case is not merely a technique but a frame within different methods and analytical perspectives may be used according to the nature of the research project. A mixture of both quantitative and qualitative methods is therefore possible to use. Thirdly, with the open-ended nature of case study method, both rich, thick micro-level observations could be mixed with contextual background descriptions within the selected cases. Fourthly, while case study process is mainly inductive, working from empirical data towards a theory of explanation, studies do not always commence from nothing, but are cumulative in the sense that previous research results and
concepts could be supplemented for further testing and refinements (Smith 2000).

4.1.2 Criticism of Case Study Method

There are also some methodological criticisms addressed towards case study method. Confronting some of these, Yin (1994) recognises that within the academic community researchers who are rejecting CSM are doing so mainly on the grounds of the method’s lack of rigour and the small basis for scientific generalisation. Another suggested deficit of case studies is that the method is considered to be very time consuming and generates massive amounts of data which are not all being used (see also Hamel et al. 1993; Simons 1996).

Responding to the issue of CSM lacking ability to generalise findings into a broader context, Stake (1995) admits that since findings presented are generated from a few number of cases, generalisation in a statistical sense is not the aim. The purpose with CSM is rather to achieve what Stake denotes as naturalistic generalisation which he defines: “conclusion arrived at through personal engagement in life’s affairs or by vicarious experience so well constructed that the person feels as if it happened to themselves” (Stake 1995 p.85). In other words, by reading and reflecting on case study reports, people are able to draw their own general conclusions about life and society from the basic assumption that these are situations which individuals are familiar with and can relate to. Similarly, Yin (1994) argues that using case study findings for statistical generalisation would be a major flaw because cases are not designed as sampling units. He argues that the main purpose with CSM besides description is to generate theories using analytical generalisation, which in brief means that a previously developed theory is used as a template with which to compare the empirical results of the case study in question.

4.2 Data Gathering

As mentioned above, with case study method both qualitative and quantitative approaches are appreciated. Hence there are a number of various methods and sources for data gathering available to the researcher. To some extent, certain approaches and methods depend on which style of CSM is chosen. Focusing on educational case studies, the following section provides some of the methods used in this study.
4.2.1  Document review

According to Yin (1994), documentary information or document review is relevant to every case study topic and should be included as an object of explicit data collection plans. Yin counts as documents everything from letters, memoranda, agendas, announcements, administrative documents to single newspaper clippings and other articles subjected in the media.

At the same time as document reviewing is an important part of the data collection, the usefulness is not based on the accuracy or lack of bias. The strength of using document reviewing as a method lies instead in corroborating and augmenting evidence from other sources of information. In his opinion, Stake (1995) suggests that documents quite often serve as substitutes for records of activity that the researcher could not possibly observe himself. This may be the case of political situations where the researchers are not permitted to follow meetings in person, but are envisaged to analyse written up protocols and pro-memorials. In addition, Stake argues, the recorder of the documents is perhaps a more expert observer than the researcher in this particular area.

Yin (1994) stresses the importance of understanding that what has been is done so for a specific purpose and a specific audience other than that of the case study being done. Rather, the researcher must scrutinise the documents carefully, not taking the content for granted. Hence the researcher must be aware that the documents reflect a communication among other parties attempting to achieve some other objectives. Hence the researcher in trying to decipher these latent conditions is less likely to be misled and to be correctly critical when interpreting the contents.

4.2.2  Interview

Stake (1995) argues that the two principal uses of case study method are to obtain descriptions and interpretations of others and that interviews are the main road to gaining such information. Designing interview studies, Yin (1994) asserts the importance of having a well thought out structure of what is to be asked and in what order questions are to be addressed to the respondent. Consequently, interviews could either be structured, semi-structured or unstructured in style. Differences between these forms are that the interviewer leaves more or less room for the interviewee to formulate answers. A combination of these forms is also sometimes appreciated. With this technique the interviewer starts the session with a set of structured questions that are followed by some open-ended or unstructured questions enabling the respondent to elaborate the answer.
Stake (1995) contends that interviews are both the easiest aspect and at the same time one of the most difficult methods to master. The method is easy in the sense that people are often pleased to be listened to and willing to share their opinion, as long as the interview situation including questions, environment and perceived attitude of the interviewer comfortably comply with their own agenda. Thus, getting a ‘good’ interview in the sense that the researcher manages to firmly steer the respondent into the issues of relevance is more the difficult, and requires a lot practice. To avoid some of these pitfalls, Stake (1995) argues that questions should be carefully formulated and if possible, tested for relevancy in advance.

4.2.3 Questionnaire

While not belonging to the ‘core’ sources for data gathering in case study method, questionnaires are an important method. Using questionnaires are often applied if the case in question involves a lot people, that is, a larger organisation, a multinational corporation or the study of a single reform within an educational system. Another function of questionnaires is to test interview questions for their relevancy or as part of a triangulation strategy validating other sources of gathered information.

The design and distribution of questionnaires could take many forms. As with interviews, questionnaires could either be structured with a number of specific questions to be answered, or have a more open-ended character allowing the respondents to argue for a certain issue. How the questionnaires are distributed depends upon the particular case. It the case in question comprises only a few individuals, the researcher could naturally distribute and retrieve the material himself. Otherwise, if the case comprises a lot of people or is within a large geographical area, surface mail or electronic communication such as e-mail and Internet are common channels of distribution.

4.2.4 Triangulation of Data

According to Stake (1995) it is important that every researcher recognises the need for not only being accurate in gathering and measuring data, but also being logical when interpreting their measurement. Overall, there is an ethical obligation to minimise misrepresentation and misunderstanding, whether this is caused purely unintentionally or by being subjected to uncritical, wishful thinking.
To designing protocols preventing these kinds of biases, Yin (1994) asserts that triangulation of data is one of the most important principles when performing case studies. By triangulation, the researcher emphasises to systematically validate the data gathered by using multiple sources measuring the same phenomena which are then compared with each other for evidence and reasonability. If the aggregated findings of multiple sources point in the same direction, what Yin states as: “converging lines of enquiry” (p. 92), then the case study is likely to much more accurate and trustworthy. If lines are not converging, that is indication of validity problems which the researcher should investigate further.

As described by Yin (1994) there are many possible combinations for triangulation of data sources. One common example is the use of combining open-ended surveys and document review together with direct observations and structured questionnaires. Besides triangulation of data sources, the researcher could also triangulate different theories of the same dataset, different methods and different evaluators.

One of the problems facing case study researchers with the aim of triangulating data sources is the expenditure and the time effort. It should not come as a surprise that designing and distributing questionnaires, reviewing documents and performing interview studies, are all activities that require a lot of time and financial support. The problem is also related to the competence of the researcher. As Yin (1994) stresses, most researchers are more or less specialised in a certain methodology, while the use of triangulation requires knowledge in qualitative and quantitative approaches. Achieving this, Yin asserts that a multidisciplinary research environment would be best suited to designing these types of projects.

4.3 Research Procedure of This Study

In the following section research procedure of the six case studies that comprise this doctoral thesis is presented. Presentation of the procedure follows the analytical model of contexts of formulation and realisation. The section starts with describing the evaluation project with AVE, which constitutes the methodological point of departure and was the author’s first in-depth contact with the reform.

4.3.1 Methodological point of departure

The task of evaluating the Pilot project with AVE during the three-year period from 1996 to 1999 was quite extensive. In general, the research team which the
author of this thesis was a member of, was given the commission by the government to evaluate ten different dimensions, ranging from macro-economic issues of demand and supply patterns of labour market and design of workplace learning, to issues of equality and co-operation between various educationalists. In Table 1 below the dimensions are displayed.

<table>
<thead>
<tr>
<th>Evaluation dimensions of AVE</th>
<th>Main sources of information/data gathering</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student Questionnaires</td>
</tr>
<tr>
<td>(1) Demands of working life</td>
<td>X</td>
</tr>
<tr>
<td>- Significance of AVE in production results/development</td>
<td></td>
</tr>
<tr>
<td>(2) Aspects of equality</td>
<td>X</td>
</tr>
<tr>
<td>- Has gender-tied education/choice of career been abandoned</td>
<td></td>
</tr>
<tr>
<td>(3) Design of the AVE</td>
<td>X</td>
</tr>
<tr>
<td>- Work as a learning process</td>
<td></td>
</tr>
<tr>
<td>- Workplace learning</td>
<td>X</td>
</tr>
<tr>
<td>- Differences from other forms of provision</td>
<td></td>
</tr>
<tr>
<td>- New groups of students</td>
<td>X</td>
</tr>
<tr>
<td>- Passing on to universities</td>
<td></td>
</tr>
<tr>
<td>- Curriculum content on university level</td>
<td>X</td>
</tr>
<tr>
<td>(4) Importance of the responsible authorities</td>
<td>X</td>
</tr>
<tr>
<td>(5) Economics of AVE</td>
<td>X</td>
</tr>
<tr>
<td>(6) Co-operation between interest groups</td>
<td>X</td>
</tr>
<tr>
<td>- How was the co-operation organised?</td>
<td></td>
</tr>
<tr>
<td>- What were the effects of the co-operation</td>
<td>X</td>
</tr>
<tr>
<td>(7) Work by AVE committee</td>
<td>X</td>
</tr>
<tr>
<td>(8) Function of Self-assessment</td>
<td>X</td>
</tr>
<tr>
<td>(9) Students’ opinions about AVE</td>
<td></td>
</tr>
<tr>
<td>(10) Secondary effects imposed by the AVE reform – tentatively</td>
<td>X</td>
</tr>
</tbody>
</table>

Source: SOU 1999:119

In total the evaluation project encompassed some 12 400 students, distributed over about 200 different course programmes. With regard to participating educationalists, about 108 training organisations participated in the self-evaluation programmes that were generated (SOU 1999:119).

Methodologically speaking, the research team found it important not to use an objective model but instead use a model that would support the improvement work during the trial period rather than checking the extent to which the goals had been met after the conclusion of the project. Furthermore, the research team found it valuable to use a model that permits the subject of evaluation to change its established goals in the course of the trial activities while still being able to judge whether or not the change implies an improvement. The principal means
of supporting improvement work among the AVE organisations, and at the same time taking care of data collection for the evaluation work, was self-assessment in the respective educational organisations. All AVE educational organisations were therefore offered a tool for self-assessment in order to support systematic work with continuous improvement through a learning attitude in organizations. Self-assessment also constituted a means of collecting data required for the evaluation.

The part of the evaluation scheme that was mainly intended to support the activities of those being evaluated was the possibility of using a self-assessment tool based on the theories of Total Quality Management. This type of evaluation has aims similar to those of the above-mentioned system evaluation, since both aim at supporting systematic work with continuous improvement through a learning attitude in organisations. In accordance with the ordinance (Ordinance 1996:372) that steered the pilot project with AVE the educational organisations were required to participate in the evaluation carried out. Overall, the various procedures for data collection by the research team are summarised in a model shown in Figure 2 below.

As depicted in Figure 2 besides questionnaires, instrument for self-assessments, site visits and interviews, another information channel during the evaluation project was the collection of existing national statistics for the educational system from Statistics Sweden, which were then compared with the AVE reform.
Conclusively, the evaluation project generated vast amounts of both quantitative and qualitative data. From these not always congruent loads of information, the author of this thesis proceeded with the aims of reaching a deeper theoretical and empirical understanding on how the system of continuing vocational training in Sweden is maintained and develops, and most importantly, how a new reform such as AVE is formulated and implemented into that system using case study method in combination with the analytical model of educational reform development by Lindensjö and Lundgren (1986; 2000).

The use of this particular model implied that the reform process with AVE, which constitutes the case, was analytically divided into two separate contexts—formulation and realisation, enabling the author to study the different phases more in-depth. As the different contexts by necessity required multiple sources of data gathering, the methodological strategy of this thesis was to apply data source triangulation.

4.3.2 Case Studies in the Context of Formulation

Focusing on the context of formulation within the reform of Advanced Vocational Education, an array of different research methods was used. In the following, the research procedure is summarised.

Paper I

The purpose of this first study is to present and analyse some of the present international findings on developments in VET-systems, and in particular strategies being developed and used in different parts of the world to meet the challenges of the future working life. In this context, the research objectives could be formulated by “what are the latest developments in VET systems” and “what are the strategies and measures taken to provision these current trends?”

The main research strategy during this study was to develop a theoretical and conceptual framework in which the developments and the research project with the reform of AVE could be summarised. The theoretical concepts on which the analytical framework built upon were the globally inflicting concepts of Flexibility, Mobility and Transferability derived mainly from the works by Nijhof and Streumer (1994).

As the volumes of academic and non-academic works describing developments within worlds of work and in relation to the vocational educational systems are almost infinite and hence very difficult to get a clear overview of, the possible sources of information on which this analysis was based, had to be delimited.
Ultimately then, the method for data collection chosen for this case study was to select and critically review a qualitative sample of papers delivered at the 6th International Vocation and Education Training Association (IVETA).

The criteria for selection of papers to examine were that they describe developments of VET systems, for example driving forces, or assess particular reforms within systems that could be compared with the situation in Sweden and the AVE reform. As these papers were delivered from both established researchers and practitioners, it was presumed that the papers present the very latest and accurate information about developments in VET across the world.

**Paper II**

In the second study considering the policymaking process forming a new education policy in continuing vocational training in Sweden, three main research objectives were addressed. These were: analysis of the relevant theoretical and applied literature on the concepts of stakeholders, conflict, and consensus building in educational policymaking; analysis of official remarks written by the main stakeholders, and thirdly, analysis of the differences between official rhetoric as stated in the policy documents and pragmatic agreements as seen by the government decisions following the negotiations.

The research procedure had three main steps. Firstly, the four government reports providing the background scenario of the policymaking process were analysed. Secondly, a complete list of stakeholders involved and their written remarks was gathered from the Ministry of Education and Science in order to get a first glance as to which interests in society had been represented. From the population with about 150 organised interest groups per government report, a sub-sample for further in-depth textual analysis was made.

As the third step, to complement the written remarks, semi-structured interviews were performed with four key representatives from each of the selected stakeholders involved were performed. Overall, the interviews provided a better insight into how these complex issues were discussed, argued over, explained, justified, defended and elaborated as they went about their task of addressing requirements and policy recommendations.

**4.3.3 Case Studies in the Context of Realisation**

In the context of realisation, the aims of the performed case studies were to explore various dimensions of the implementation process with AVE. As with
the case studies in the context of formulation, the methodology employed covered both quantitative and qualitative approaches.

**Paper III**

The third study describes the settings and results of the extensive Pilot project evaluating the first three years of the AVE reform (1996-1999). In the beginning of the project, the purpose was to compile information and knowledge in less than ten different areas including experiences relating to new vocational courses, new educational forms and new course providers, to actual extent of interest in this type of vocational education on the part of the employment market and the students involved.

As visualised in Figure 2 above, the evaluation project applied a range of methods for data gathering. Two of the main methods were the Instrument for self-assessment and student questionnaires.

*Instrument for Self-assessment*

A special tool for the self-assessment, based upon Total Quality Management (TQM) and called ‘Läroverket’, was constructed at the Division of Quality Technology and Statistics at Luleå Technological University (Svensson and Klefsjö 2000). The aim of this self-assessment was twofold. Primarily, it was seen as a rational way of getting part of the information needed for our examination. At the same time, it was also hoped that the self-assessment process would encourage participants to reflect on their own work and thereby provide an instrument for quality improvements over time.

*Student Questionnaires*

In parallel with the self-assessment instrument, three directed survey studies were conducted with the participating students. Each of these studies had aims and therefore different sets of questions depending on the phase of the educational process the students were in. The first survey, comprising 9,800 students in total, was distributed at the start of the course programmes. Its purpose was to survey, by means of background questions, the characteristics of people who apply for the course.

The second survey, encompassing approximately 4,500 students altogether, was distributed at the mid-point of the course programmes and aimed at establishing whether the programmes met the requirements for workplace learning and integration of theory and practice as intended by the designers of AVE. A
further aim of the study was to survey the students’ personal impressions, experience and impressions of the reform.

The third survey, comprising a population of approximately 1 300 students, was carried out six months after the students had graduated. This survey, carried out with the aid of the organisation Statistics Sweden, explored the extent to which graduates had received offers of employment.

Paper IV

In the fourth study the aim was to investigate attitudes among educational organisations to the use of system evaluation for quality improvement in Swedish higher or continuing vocational education. The object for this investigation is the national evaluation of the pilot project with Advanced Vocational Education (AVE).

In the study two research objectives were set out. Firstly, to what extent was the work of the research team on the AVE-project perceived as a support for development of the educational organisations, and secondly how was the work of the research team viewed among the participating educational organisations within the Pilot project in Advanced Vocational Education.

In terms of research procedure, telephone interviews were used to investigate the opinion of those being evaluated within the AVE-project. The selection of respondents was made on the basis of strategic criteria insofar that of the total population of 123 educational organisations, only those organisations and within them the individuals’ who were most familiar with the work of the evaluation team, were initially selected. By familiarity is meant that they had participated in part of the ‘Läroverket’ education, administered student inquiries and participated in the programme of visits of the evaluation team. On the basis of these criteria, the selection frame encompassed a total of 22 educational organisers.

The interviews consisted of six questions, divided into two separate parts. The first part of the telephone interviews consisted of four questions with fixed alternative answers arranged on a Likert scale (Hellevik 1996). The second part of the inquiry consisted of two questions with open alternative answers. The questions served to reduce any ambiguity and contradictory answers given in the first part. In addition, background data on the respective educational organisations that can be assumed to bias the answers has been used, that is line of business, ownership form, geographic location and economic financing.
Paper V

In this fifth study considering developments within workplace learning in higher vocational education in Sweden and Finland, three research objectives were set out. The first objective was to analyse the relevant theoretical and applied literature on partnership and co-operation between educational institutions and enterprises, and theoretical models for learning at work. The second objective was to analyse government reports and official policy documents describing the formal grounds for and organisation of workplace learning within the two higher VET reforms. The third objective was to analyse the differences between the official rhetoric and actual experiences and implications implementing workplace learning within a cross-national perspective.

The research strategy included three main steps. Firstly, in order to provide a contextual background and a deeper understanding for the formal design of and organisation in workplace learning within the two reforms, a number of domestic research studies, government reports and other policy documents were disseminated. To retrieve the background information, governmental and bibliographical databases in Sweden and Finland were searched. In the process of selecting relevant sources, the authors felt it necessary to be flexible by keeping the amount of text material to a minimum. This decision was based on earlier experiences that each nation produces more policy texts on educational development than any of us could be expected to analyse within a lifetime. Thus, emphasis was put on analysing significant policy documents behind each reform only.

Secondly, in exploring the practical arrangements for workplace learning in the 'field' when implemented in co-operation between educational institutions and enterprises, this study brings the most recent national data available. For this step, an in-depth research overview for completed or on-going research studies on these two VET reforms in question was first made. In particular, the overview emphasised research studies which included the topic of collaborative partnerships and models of learning at work. Criteria for inclusion of studies included rigorous research methodology with concern for validity and reliability of the sample, instruments for measurement, and scrutiny of analysis. Moreover, the authors emphasised to bring forward research findings from both parties, i.e., not just from educators and authorities, but also results representing employers' opinions.

Thirdly, in the final step where empirical results, experiences and practical implications with workplace learning within the two reforms are concluded, a conceptual framework for cross-national analysis was developed. Into this
framework, two analytical parameters as displayed in Table 2 below were discussed.

### Table 2. Matrix of analytic parameters

<table>
<thead>
<tr>
<th>National VET Reforms</th>
<th>Community level (Partnership &amp; Co-operation)</th>
<th>Organisational level (Models of Learning at Work)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Vocational Education (Sweden)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polytechnics (Finland)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Lindell, M. and Stenström, M-L. (Submitted)

In sum the two parameters visualised in Table 2 represent a heuristic attempt offering two different levels comparing the national strategies bridging education and working life. The first analytical parameter is at the community level, which in this study we stipulate as the work on building partnerships and sustainable networks between educational institutions and enterprises. The second analytical parameter is at organisational level, which in this study has been stipulated to be the various models of learning at work that are used linking educational institutions with the workgroups and individuals within enterprises.

### Paper VI

In the sixth study considering the outcome of the Swedish reform of advanced vocational education (AVE) from a graduate as well as from a labour market perspective, the aim of this study was to present results from three sets of questionnaires collected in 1999, 2000 and 2001 surveying over 5 400 of the graduates concerning their opinions and experiences on how AVE corresponds to the demands and requests of themselves when entering the labour market, hence providing a time-series analysis of the outcome with advanced vocational education.

All three series of questionnaire were administered by Statistics Sweden with the following procedure. First, to find the population, the authority used the national register covering all students within AVE. Secondly, to create an appropriate sample frame the criterion used was that graduates had to have completed their AVE programme at least six months prior to the time of the investigation, hence giving them enough time to establish themselves on the labour market. Thirdly, the sample frame of matching graduates was then coordinated with the National Register of Swedish Citizens (RTB), acquiring the graduates current home addresses.
The questionnaires were distributed by surface mail to graduates’ current home addresses. The questions had fixed answer alternatives “Yes”, “No” and “Uncertain”. Included with the questionnaire followed a missive explaining the purpose of the investigation, instructions and reply envelope. A first reminder was sent out two weeks afterwards. A second reminder was distributed shortly after that. In addition, those who after the second letter had still not answered the questionnaire received a telephone call from Statistics Sweden, urging the graduates to answer the questionnaire by telephone interview instead. Besides primary data in terms of the items asked, secondary data in the form of background information regarding the graduates, the programmes and education providers were also gathered.

All together, the population comprising all three questionnaires amounted to 6,111 individuals in total. Of these, 5,438 individuals answered the questionnaires, thus giving a response rate of 89%. The total of no-responses amounted to 11% or 673 individuals altogether.

4.4 Methodological Discussion

The process of modelling a research design, gathering and analysing data, raises a number of methodological concerns and issues to be dealt with by the researcher in the best way possible. Yin (1994) describes four tests to determine the quality of research design. These tests are: Construct validity; Internal validity; External validity and Reliability.

With Construct validity the researcher has to present the topic and research questions of the study clearly and also demonstrate the appropriate procedure and methods taken for which the research questions are answered. One method to address this is to use multiple sources for evidence that are triangulated. With the test of Internal validity, the researcher is obliged to demonstrate whether all rival explanations and possibilities for a certain causal relationship have been tested, a test which according to Yin (1994) is mainly applicable in explanatory case studies and hence not applicable in this study. With External validity, concern is focused on whether it is possible to generalise the findings of a study into a broader complex of theory, a procedure which Yin denotes as analytical generalisation. Finally, the test of reliability is concerned with to what extent performing the same case study over again would produce the same results and findings. Enabling this test, the researcher must keep strict control of the various steps taken in the research process and make sure that they are accurately documented.
4.4.1 The concept of Trustworthiness

Although the concepts of validity and reliability remain powerful in social sciences, there are proponents of case study method that reject these concepts because they contend that they do not reflect the nature of case study method as the study of singularities (Lincoln and Guba 1985). In line with these critical thoughts, Bassey (1999) proposes the concept of Trustworthiness that to him better illuminates the respect for truth in qualitative scientific inquiries. Extending the concept, Bassey (1999) suggests that there are at least five questions that the researcher must ask him/herself during the research cycle. Two of these questions are whether there has been prolonged engagement with the data sources and if there has been a persistent observation of emerging issues. Additional questions are whether raw data has been adequately checked and triangulated with other sources, leading to the proposed analytical statements. Finally comes the question of whether a critical friend has been given the opportunity to thoroughly read through the results and challenge the findings.

4.4.2 Validity, Reliability and Trustworthiness of This Study

Considering the test of Construct validity, this study claims to have presented the topic and the research questions in an acceptable manor. Situating the reform with AVE, a thorough description of the Swedish system in continuing vocational training, its components and challenges towards the development trends on the labour market has been presented, enabling the reader to understand the broader context in which AVE was formulated and ultimately embedded. Answering the research questions of what the driving forces for designing were and how AVE was implemented, this study has used multiple sources for evidence and also applied triangulation of data. For example, in Paper II the results of the document review were triangulated with the results of interview studies with the people responsible for those documents. The purpose with the interviews was to add to the understanding of the tidy and correct language of the government reports, i.e. to go ‘behind the scene’ and gain a deeper sense of how the stakeholders actually thought about these issues in ‘commonsense’ terms. Triangulation of data sources was also used in Papers I-V where besides interviews, methods including questionnaires, an Instrument for self-assessment, site-visits and comparative statistics were employed. In Paper VI questionnaires were used as the sole method, however time-series analysis was applied which strengthens external validity.

In Paper IV the frame of selection is a topic of concern. The strategic choice of selecting respondents in educational organisations in terms of familiarity could
in a sense be seen as a strengthening of external validity. This is because with only those individuals participating in the ‘Läroverket’ education, administering student questionnaires and, thirdly, having met the research group, the knowledge about our methods and aims were solid and based on own experiences. On the other hand, the selection criteria could also be seen as a strategic choice of selecting people that had already accepted and found the evaluation strategy to be successful. Had there been more time and resources, a test group of educationalists involved in the evaluation, however not having the same forefront tasks would have also been included in the study and then differences in answers could have been measured.

Ensuring demands for reliability, appropriate measures have been considered as far as this has been possible. For example, In Paper II ensuring that significant stakeholders in the reform process were selected, a strategic sampling technique described by Mitroff (1983) was used. By this definition, only organisations with certain purpose and motivation, physical and positional resources, special knowledge and views on VET were considered. A further delimiting definition was that stakeholders selected for document review had to have been involved in all four government reports, following the educational reform process from start to finish. In Paper VI, controls verifying validity of the data were made by Statistics Sweden during the procedures of sampling and collecting data in order to increase validity and reliability of the data. Moreover, in order to perform time-series analysis, questions addressed to the graduates remained identical over time, however some questions was excluded from one version to another. It is also important to notice that the raw data delivered to the authors of this study had previously been removed of all individual information, hence disabling any attempts to identify a certain individual.

Considering the various dimensions for claiming trustworthiness, there has been prolonged engagement with the data sources and persistent observation of emerging issues since the author spend the first two years gathering data for the evaluation project, getting to know the reform and the various groups of participants in more detail. During this time, an extensive literature review of the field of vocational education and training (VET) was also performed. In addition, the author also attended conferences learning more about emerging issues from an international perspective.

Considering the third and fourth question of whether raw data have been adequately checked and also triangulated with other sources, this study claims that the processes of data gathering and analysis have been carefully scrutinised. When performing interview studies with students, educationalists and policymakers, the results were summarised and immediately sent to the respondents to check whether the results were correctly presented and if they
wanted to add or exclude any of this information. When using questionnaires, small pilot studies were conducted in advance testing relevancy of questions addressed. Moreover, when analysing the questionnaires careful analysis for answering and drop-out distributions checking for reasonability were conducted. If improbable distribution rates or other forms of malfunction were detected, the questionnaires were excluded from further statistical analysis.

Considering the final question of whether there has been opportunity for critical peer debriefing, five of the six appended papers in this study have been examined following the internationally standard procedure of double blind peer-reviewing and found to be accepted. Examining the thesis summary, preliminary versions of the manuscript including the results and findings sections were carefully read by the tutors of the author and by colleagues at several occasions. At the final stage of completing this doctoral thesis the entire manuscript including appended papers was subjected to an external expert outside of the home university who thoroughly examined the research design, results and findings.
5 RESEARCH RESULTS

This fifth chapter includes a summary of the research results. The purpose of this chapter is to connect research results with the analytical framework presented in chapter three. The first section - Context of Formulation describes the initial steps towards the reform in AVE. In the second section – Context of Realisation emphasis is drawn to the work of implementing AVE as a Pilot project into the system of continuing vocational training including, graduates transition to the labour market. For a detailed discussion of the results, the reader is referred to the appended papers.

5.1 Context of Formulation

In April 1994, the first step towards the reform was taken when the centre-right government commissioned a study that would investigate the possibilities for a new reform in higher vocational education (Government Directive 1994:36). As part of the formulation context, the government-appointed investigator Mr. Nordanskog, a former manager of education and training at Volvo, when presenting the report in May 1995, linked his findings and proposals both to current international trends in education and training and to the changing nature of work, as well as to national educational concerns (SOU 1995:38).

5.1.1 International influences

In the government report the investigator concluded that technological, economical, and organisational developments in working life in western societies and elsewhere required drastic improvement in VET regarding flexibility and adaptability. The report especially focused on the lack of tertiary vocational education emphasising workplace-based learning, which resulted in a short supply of specialists in several sectors of the Swedish labour market (SOU 1995:38).

In general, the report was in line with a number of previously presented studies concluding that the general level of education of the Swedish workforce had not followed the international developments and was lower than in most other OECD-countries (SIND 1991:2; SOU 1992:7). These studies suggested that about 50% of the workforce within manufacturing industries had compulsory school education only (Aronsson and Sjögren 1994; Ds 1992:83; SAF 1994). Consequently, the studies recognised a lack of specialised VET programmes combining theoretical knowledge with workplace-based training outside schools.
In this particular direction, emphasis was put on the international trends on developing Continuing Vocational Training reforms. For example, elements of theoretical and workplace-based knowledge were taken from the reform with Polytechnic institutions in Finland.

A second motive for the reformation of continuing vocational training was the ongoing developments within working life. The introduction of modernised production methods such as Flexible specialisation (Piore and Sabel 1984) and new models of work organisation for example Lean Production (Womack; Jones and Roos 1990) had called upon a quick upgrading of employees basic and more job-specific qualifications (SOU 1995:38).

5.1.2 National Educational and Labour Market Concerns

Besides the impact of international influences on continuing vocational education and the changing nature of work that was mainly derived from an economical and competitive point of view, there were also a number of domestic educational and political concerns applied in the proposals.

One of the most urgent demands was to find a way to countermeasure the devastating economic recession beginning in 1992 resulting in very high levels of job lay-offs and unemployment, especially amongst the young population (aged 16-29). The argument was that these groups in society with less or no previous work experiences needed a new pathway into the labour market.

A second reason was to counteract unemployment, especially among young people. A third aim of the reform was to break traditional gender-based choice of occupational careers. Moreover the aim was also to promote participation and training of groups in society which are under-represented in the education system. One such group was first and/or second generation of immigrants. This latter effort was made in order to avoid social exclusion.

In conclusion, due to the short supply of skilled workers in several sectors of the Swedish labour market, the report focused on the need to establish a wide range of higher vocational education programmes based on the principle of flexibility. Thus the report argued that where there is a demand for specialists within any specific sector of working life, there should be a VET programme designed to fill that demand (SOU 1995:38).

In terms of organisational structure, the report stressed the need to move away from a centralised educational planning system towards a decentralised system where representatives from regional and local enterprises are encouraged to take
an active part in development and implementation, hence moulding VET programmes to their specific needs. In addition, the report stressed the importance of strong elements of workplace-based learning, proposing that one-third of the entire course time address advanced application of theoretical knowledge at a workplace. The participating companies would guarantee that work and qualified mentoring would be provided for the students (SOU 1995:38).

The most radical proposal in the report was, however, the establishing of new and independent vocational academies alongside the universities. In order to finance the academies, all tertiary vocationally oriented education would be transferred to these new academies. Consequently, financial resources from the labour market training would be transferred from the National Labour Market Board to the new academies. Additionally, private sponsoring in the form of commissioned education by working life would also be approved.

5.1.3 Positioning by the Stakeholders

Even in the formulation stages, the new concept of vocational education did not escape criticisms. There were two main objections to the new model. First, there was a question as to whether industry could provide enough trainee jobs. Second, there was a debate over whether the evolving reform should be organized as a new educational system or one within universities and colleges. The second discussion included a debate over whether AVE was actually post-secondary level and if so, should it be integrated into the university system. Partly as a result of these debates, AVE was started as a pilot project to compile experiences relating to new courses, new educational forms and new course providers.

The response from the stakeholders was mixed, to say the least. Among stakeholders representing employees, the opinions were in favour of establishing a new continuing vocational education per se. Their general impression was that Sweden for a long time has lacked higher vocational education, resulting in a shortage of specialists. In terms of organisational affiliation and responsibility, the employee bodies were very critical of the establishment of new vocational academies separated from the universities. The argument from both the LO confederation5 and the Metal Workers' Trade Union was that the vocational academies would not be able to compete with the universities in terms of educational quality as well as in status. The result, the LO confederation argued, would be that the academies be ranked as 'the second best' alternative, thus resulting in even more difficulties recruiting talented and well-motivated

5 The Swedish Trade Union Confederation
students. This critical opinion coincided with the arguments made by the Teachers’ union as well. The Metal Workers’ Trade Union was especially critical concluding that the evaluator Mr. Nordanskog presented ‘conservative and obsolete thinking’ and that he favoured big businesses’ needs over labour’s needs. The trade union also blamed the report and the government for being politically class-conscious in a negative sense because it aimed to provide companies with cheap labour and because it aimed to place students with blue-collar backgrounds in vocational academies and students with white-collar backgrounds in the universities.

The stakeholders representing employers, on the other hand, were more optimistic about the proposals presented. In particular, the SAF confederation pointed to the need for allowing local and regional companies to influence the content and the curriculum, thus establishing a demand-led system instead of supply-led one.

Critical voices were also raised. Paradoxically, although the report had proposed strong elements of workplace-based learning, the Association of Swedish Engineering Industries was sceptical about the length of workplace-based learning, arguing that it might be difficult to integrate students into real-world production at all. The somewhat loosely formulated argument was that the production systems of today are so optimised and cost efficient that any errors made by un-skilled students would be economically devastating. The employer association also questioned whether companies (especially for small and medium sized ones) really would have enough time or economical strength to provide mentors for the students.

Finally, among the national authorities in charge of education and training the report was met with strong disagreements, especially regarding the proposed organisational structure. Being more optimistic, the National Agency for Higher Education welcomed the idea of vocational academies, arguing that a transfer of all tertiary vocationally oriented education into the academies could be a good idea because the universities themselves had not been very successful in emphasising the practicality of higher education. Conversely, the National Labour Market Board and the National Agency for Education were very critical. While the former claimed that the proposal would lead to the destruction of an already functioning labour market training to fight unemployment, the latter stated that the potential for achieving workplace learning among the companies was strongly exaggerated by the author and simply not believable.

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6 The Swedish Employers’ Confederation.
5.1.4 Towards a First Reform Proposal

Considering the requirements and recommendations put forward by the stakeholders, the newly elected Social Democratic government proposed in February 1996 the launch of a pilot project to test a new form of vocational education (Government Bill 1995/96:145). The proposal was rather extensive as it suggested a new organisational structure, principles of monitoring and steering, framework of educational providers and co-operation between educationalists and representatives of working life for the provision of workplace learning.

Structurally, the government proposed reform was to be continuing: completed upper secondary education or equivalent knowledge was required for eligibility. Most surprisingly the government proposal, with respect to organisational structure, was a clear concession to the employee stakeholders – the LO confederation and the Metal Workers’ trade union. In the proposal, the government rejected both the original idea by the investigator of new vocational academies (SOU 1995:38) as well as the following idea linking the new reform with the universities.

To avoid dissatisfaction with the stakeholders of employers (and indeed a deadlock between the ministers of education and science of the new government itself), the government also required the individual programmes to be developed in close co-operation with regional and local companies (Government Bill 1995/96:145).

5.2 Context of Realisation

The reform with AVE was first launched in August 1996. With AVE, and for the case of VET in Sweden, several innovative educational features within the VET system were introduced. Based on these innovations and also the criticism earlier addressed, the reform was initially labelled as a Pilot project and in the first year encompassed a modest 1700 education places per annum.

The cautions of how this reform would be received by educationalists, students and represents of working life could also be indicated by the government decision that the pilot project would preliminarily last until the end of 1999. In the administrative packages that preceded the launch, principles of how the reform should be implemented were included providing instructions for monitoring, steering and more transparent guidelines for organisational structure and content.
5.2.1 **Principles of Steering, Monitoring and Finance**

In order to ensure that the programmes correspond to the actual needs of industry and commerce, the content and curriculum of AVE programmes should not be considered at State level, but designed and implemented at regional or community level between education providers and enterprises in close co-operation. The final decision to start a new programme would rest, however, with the parliamentary committee on advanced vocational education which was assembled in May 1996 with the task of monitoring, steering and evaluating the reform. The commission comprised representatives of a number of political parties, labour market organisations, the municipalities and higher education institutes.

Delimiting the possibility of overdosing supply of AVE graduates on the labour markets, each AVE programme was decided to run for a maximum of five cycles, where after its effect on the local and regional labour market would be evaluated by the committee. If the demand at that time was found to be fulfilled, the AVE programme in question could be subject to termination, or at least lose the public financial support.

Beside the work of the committee, the government proposed that a parallel and independent evaluation study of the pilot project was to be performed. The proposal was made in order to ensure that the reform met the high standards of quality assurance and evaluation. The task of evaluating AVE concerning ten different dimensions was contracted to a research team at Luleå University of Technology.\(^7\)

In the proposal, students were to be entitled to public financial support subject to the current regulations for higher education. The public costs for the reform was estimated to approximately 700 million SEK per annum (Government Bill 1995/96:145).

5.2.2 **Organisational structure and content**

With respect to organisational structure and content, the government proposed an equal mix taken from labour market training, upper secondary, supplementary, and university courses. The overall aim was that courses should combine a practical orientation with in-depth theoretical knowledge. The interplay between theory and workplace practice was seen as important both for course quality and to meet the needs of the employment market and the students. Allowing large degrees of freedom towards representatives of industry and

\(^7\) A description of how this evaluation was carried out has been earlier presented in chapter 4.
commerce, there were no restrictions in terms of occupational categories in which AVE was to be provided. The programmes were proposed to be open both to individuals directly from upper secondary school and to people who were already gainfully employed and wished to develop their skills in a defined area.

The guidelines for the pilot project were relatively unrestricted as was the aspect of geographical location of programmes. No particular attention was given to a certain region of Sweden. This implied that individual educational organisers were free to take initiatives and the courses offered can be seen to reflect both the Commission’s and the course provider’s image of the demands of the market. In practice, this meant that AVE programmes became divided into twelve different sectors, reflecting the diversity of the Swedish labour market. Distributed by the sectors of programmes, the available programmes had the following appearance as indicated in Table 3 below.

Table 3. Sectors of Programmes within Advanced Vocational Education.

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<th>Sectors of Programmes</th>
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<tr>
<td>1. Manufacturing industry</td>
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<td>2. Information technology</td>
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<td>3. Business and administration</td>
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<td>4. Tourism including restaurants</td>
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<td>5. Construction industry</td>
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<tr>
<td>6. Others</td>
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<td>7. Transport sector</td>
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<td>8. Health care sector</td>
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<td>9. Agriculture, forestry and gardening</td>
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<tr>
<td>10. Forestry industry</td>
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<td>11. The environment sector</td>
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<td>12. Food industry</td>
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The study length of each programme was proposed to comprise a minimum of 40 points (i.e., 40 weeks’ full time study), thereby securing that basic qualifications and learning at the workplaces would take place. Programmes would either be divided into traditional semesters, or conducted continuously with no division into semesters, thereby enabling them to converge with the production cycles of industry. By this the proposal addressed the real needs of the labour market, the government argued. A course consisting of 80 points or more would culminate in an AVE certificate or diploma. Graduates from the reform were expected to work as skilled craftsmen, experts, and to some extent function as middle range managers. At the same time, no professional degrees requiring national standards of certificate such as nurses, economists and civil
engineers were to be provided by AVE, but remain within the universities and university colleges exclusively.

5.2.3 Framework of Educational Providers

When designing AVE, and in particular the curricula, combining elements of theoretical and workplace-based knowledge, was inspired by the reform of the Polytechnics in Finland as well as other institutions (SOU 1995:38). However, AVE still differentiates in several ways. One of the main differences is that AVE programmes, in comparison to the Polytechnics (Lampinen 1995; Stenström 1995), are not integrated within higher education or within any fixed institutional body for that matter. AVE programmes are instead provided by a ‘patchwork’ including several educationists, i.e. higher education, upper secondary schools, municipal adult education and private training companies, depending on the specific competences required or geographical location.

Further, it is not unusual that different educationists cooperate bringing certain expertise together. For example, while a private training company can be formally in charge of a programme, they in turn outsource the theoretical knowledge content to a university providing some lectures and examinations.

5.2.4 Organisation of Workplace Learning

Not having the strong tradition of apprenticeship in Sweden, with AVE an apprentice-like provision of training was introduced. The aim was that these courses should not be organised as a traditional traineeship period, but rather revolve around active workplace-based learning and problem solving within an overall educational context. Hence, with each AVE programme one-third of the course programme time would be devoted to advanced application of theoretical knowledge outside school at a company or organisation under the supervision and guidance of an experienced worker.

One requirement of the course providers was that the workplace itself be organised to make learning possible. Although the aim of training was to impart familiarity with an occupation or vocational area, the training was required to be more general than, for example, in-service training also provided by companies. Moreover, during the work-based learning, students would be encouraged to apply a systemic perspective, to train and enhance their analytical capabilities, to apply a holistic approach towards their future profession, learn how to take responsibility for their work, and finally tune their capability to co-operate with other people in teams. According to the proposal, a detailed plan of how these
aims were to be fulfilled was required to be enclosed with every application. Moreover, the policy documents required that work-based learning should not only be designed to suffice notions with the trade in question, but also to lay the foundation for continuing training throughout an individuals’ active working life. Trying to take the edge off the dissatisfied tone within the trade unions, the government proposed that industry would bear the costs incurred for the workplace-based training.

Achieving these rather high demands of workplace learning, the government in their policy documents also detailed how co-operation between educators and enterprises would be organised (Government Bill 1995/96:145). First, it was decided that every AVE programme should have a local committee in charge of operative and strategic questions. Secondly, it was decided that local committees should comprise representatives from educators and working life. In the former—i.e. AVE programme should have a local committee in charge of operative and strategic questions) case, both representatives of trade unions and employer associations were assumed to participate. In the latter case of educators both management as well as teachers were required to participate, thus forming a broad representative board with equal capacity to exert power and responsibility, while at the same time compensate for regional and industrial characteristics and expertise.

5.2.5 Attitudes of Educators

It was regarded as important to understand and investigate attitudes among educational organisations to the use of system evaluation for quality improvement in Swedish higher or continuing vocational education. The expectations may either be positive or negative. In the former, the work of evaluation will be seen as forward-pointing and viewed with confidence, leading to development potential being demonstrated. In the latter case, the evaluation will be backward-pointing and regarded with mistrust, in the sense that an evaluation is seen as a threat to existing activities (Lundin and Söderholm 1995).

By a combination of the confidence/mistrust and backward/forward-pointing dimensions it is possible to construct a four-field matrix that describes the four different types of evaluators, see Figure 3.
An evaluator who is regarded primarily as a tool of the authority can be denoted Role I. In this role evaluators are viewed with mistrust as they intervene in the life of those being evaluated with the approval of those in power. This is done, with little interest in the activity, to record discrepancies that it will later be possible to correct. Role II evaluators represent the face of benign power. They are met with confidence as they are basically seen as positive, with a well-developed feeling for how the results of the evaluation will be handled.

The characteristic feature of Role III evaluators is that their methods do not primarily aim at looking for and reporting faults and inconsistencies, but rather they are concerned with the future welfare of the subject. Role III is thus the true activity developer and assistant, with whose aid those being evaluated can hope to develop their job in a forward-pointing direction. A metaphor often used for this evaluator role is ‘angel’. Finally, role IV evaluators are the representatives of an ‘evil’ power, who try with various temptations, to induce those being evaluated to enter into certain contracts for the future that are not perceived as legitimate. In contrast to role III it represents an undesirable and threatening future against which it is important to protect oneself. Hence this role is sometimes referred to as ‘demon’.

Analysing the attitudes of how educationalists perceived the structure of working with the evaluation programme set up by the research team, the findings show that 10 of the respondents (50 %) denoted the work of the research team as forward-pointing. Furthermore, 5 respondents (25 %) considered it backward-pointing. The remainder were left ‘undecided’. Moreover, 16 respondents (80 %) had experienced confidence in the evaluation and 3 of the respondents (15 %) had exhibited mistrust. All 10 respondents who
indicated forward-pointing evaluation also exhibited confidence in the evaluation project.

5.2.6 Co-operation with Industry and Commerce in practice

When initiating an AVE programme, the planning process usually starts with the regional or local industry identifying a need for specific knowledge and skills. In the next step, business approaches local educators, enquiring whether they have the possibility to provide a certain number of courses with specified content. Following the government-detailed plan of how a local programme board should operate, educators and enterprises thereafter engage in appointing the representatives. Based on the findings, the enterprises with support of their employer associations typically supply the background labour market demand analysis, and through their internal networks, assure the supply of a workplace for learning while educators provide the educational contents and the matching curricula.

In terms of developing workplace learning models, four different characteristic types were commonly identified. These were: trainee, project, apprenticeship and adoption. The most common form of work-based learning was organized as a traditional trainee period where students were supposed to put their theoretical knowledge into practice. Usually the students started with single sub-operations and gradually advanced to work as a full-time employee. Another common way of organizing work-based learning was in the form of a work-based project. For example, the students could develop a market plan or design web pages for a company. Using this form the students developed their ability to plan and coordinate their own work, often in cooperation with other students and company staff.

A third form, used only in a few craft or trade courses, was the traditional apprenticeship. Under supervision of an experienced tutor the students practiced the trade and assimilated its traditions. What the students actually learn depends on the tutor and on what kind of production is available during that period. As a fourth model then, a few courses that focused on entrepreneurship and self-employment used what we describe as adoption. In these cases, AVE students were adopted by a group of companies and together students, teachers and company representatives planned different types of work-based learning related to the needs of the individual students.
5.2.7  Transition from AVE to the Labour Market

A more definite judgement of the AVE reform can be made based on what happens to students after their exams and their retrospective opinions of the courses. The first result presented by the research team in 1999 suggested that the Pilot project had been quite effective in terms of graduates' transition from AVE to the labour market.

The main picture of AVE as leading to a job placement has continued so far. Looking at the aggregate results based on the three follow-up studies in years 1999 to 2001, about 77 % of the graduates (n=5 491) responded that they were Employed and over 5 % of them were Self-employed, which means that of the approximately 5 400 graduates that responded close to 83 % had at the time of investigations found work. Interestingly enough, the aggregated result also indicated that of the proportion of graduates responding that they had a job, close to 80 % stated that were working within a 'target' profession, i.e., a job in the same sector as that for which they had been educated, and that about 75 % allegedly had use of the skills and competences they were taught in their current job.

On the downside, the results did however reveal that over 10 % of the graduates had difficulties finding a job and that over 8 % of the respondents had continued studying at university or university college after finishing a programme within AVE. Whether the latter category continued their studies as a consequence of difficulties in finding a job or if AVE in fact encouraged them to embark on further and more theoretical studies, the data material from the investigations is unable to reveal.

Whether the results of graduates' transition from AVE to the labour markets could be said to be expected, is very difficult to assess since the reform is new and has not had the chance to become thoroughly established yet. In comparison to other similar reforms such as technical programmes at a university level AVE appears more successful with an employment rate of 83 %, in comparison to labour market programmes, which has around 60 % job placement (Ds 2000:38; Lindell 2004). However, comparing answer distributions for working within a 'target' profession, the proportion of respondents within Post-Secondary Vocational Training (YTH) stating that their current jobs were in line with their education were smaller (55 %) than for AVE graduates (75 %).

It should however be noticed that since AVE is a completely new educational concept, it is difficult to make more direct comparisons, and that the research results should be treated instead as indicators. One more reservation is that data from other studies have been collected within different time periods hence
differences in employment ratio could equally be explained by the macro econometrical situation, as well as actual differences in the reforms. Finally, it should also be stated that about one half of AVE graduates reported themselves as being employed before entering the programme of their choice. Therefore since the findings of the investigations of employment situation were not adjusted to individuals’ prior occupational status and unemployment records it is difficult to state exactly what effect the reform with AVE has had on graduates’ possibility for employment after finishing the programme (Lindell 2004).

5.2.8 From Conflict to Consensus

As the launch with AVE had been met with scepticism among stakeholders, the findings and proposals of the two studies conducted by the parliamentary committee and the independent research commission, that had monitored the Pilot project, were followed with interest as they became public as government reports in 1999.

The two government reports were distributed to the stakeholders for their consideration and feedback to guide the government as to whether AVE should be permanent and how it should be designed. In the recommendation reported back, there was no immediate sign of the earlier conflicts between the different stakeholders. Indeed, the somewhat fierce ideological disagreements that had characterised the initial proposal from 1995 had radically changed during the years from 1996 to 1999. With some minor differences, all external stakeholders expressed favour in what had been achieved with AVE.

Among the stakeholders representing the employees, the LO confederation was very positive, and in fact almost delighted about the outcome. Gone was the requirement of merging AVE with higher education and the explicit warnings that anything outside higher education would lead to regressive dual systems thinking, and thus the creation of a ‘second best school’ attitude. Quite the opposite, the LO was now in favour of establishing a new post-secondary vocational authority that was not far from the original proposal they had strongly rejected. The Metal Workers’ Trade Union was also positive, but more moderate in their judgement.

Finally, the stakeholders representing the national school and training authorities were also both in favour of continuing the pilot project. Although the Agency for Education was less prone to separating AVE into an independent organisation, it promoted the incorporation of AVE into a new system of tertiary vocational education and training. The Agency for Higher Education stated that the characteristics of the reform had to be protected, arguing that any kind of
integration thoughts would defeat the initial purposes of AVE. The Agency of Higher Education also preferred to wait for the report by the expert group investigating the future design of CVT.

5.2.9 Establishment of AVE as Part of Continuing Vocational Training

In October 1999, about one month after the research team and the committee on advanced vocational educational had presented their findings, the Social Democratic minister of education, Mr. Östros commissioned a group of experts in educational planning to present suggestions of how a future, more coherent system of CVT would be designed (Government Policy Plan 1998/99:121). In the commission, the expert group was not merely instructed to suggest if and how AVE could fit into the future concept, but instructed to study and evaluate whether the organisational structure of AVE could be broadened and function as a platform for other tertiary VET programmes including certain forms of labour market training. The expert group comprised, to a large extent, the same individuals representing different stakeholders that had been involved earlier in the policymaking process with AVE.

In May 2000 the expert group presented their results in a ministry report (Ds 2000:33). In the report, the experts suggested that the future system of CVT ought to be organised independently alongside higher education and in a way that industry and commerce could have great influence over, thereby enabling the system to stay more flexible and demand-led. Furthermore, the group suggested that the future organisation of CVT should include 26,600 education places per annum at a total cost of 1.976 million SEK (219.5 million Euro).

In this proposed new organisation, AVE would play a dominant part constituting nearly half of the annual student body with 12,000 education places. In charge of this organisation, the group of experts recommended the establishing of a new national authority responsible for financing, monitoring and evaluating the quality of the programmes (Ds 2000:33).

Responding to the ministry report, the general impression among the stakeholders was that their requirements, with some adjustments, had been acknowledged. For example, the SAF confederation applauded the suggestion of close bonds between education providers and working life and the establishment of a new accountable independent authority.

Visualising the overall collective consent, the stakeholders representing employees were also satisfied with the results presented by the expert group. The LO confederation was again very positive emphasising the need to give
continuing vocational education a clear identity of its own within the national education system, something the confederation argued, had been lost. Being less positive, the Metal Workers' Trade Union kept an ideological sharpness. The trade union repeated its requirement that workers' representation within the local AVE programmes be secured, preventing employers from taking control, arguing for continued publicly financed incentives.

Based on the ministry report, the Government proposed in January 2001 that AVE from January 2002 would be a regular part of the existing continuing VET system and that the number of education places provided would be expanded to 12,500 per annum from the same year (Government Bill 2000/01:63). On the recommendation to broaden the organisational structure of AVE in order to give place for other forms of continuing VET programmes, the Government clearly supported the proposal, arguing that AVE as a future platform would provide better and more effective bridges between school and working life. At the same time, the government emphasised not rushing into this re-organisation, without first solving the complex issues of curricula, quality of education and reliable forms of co-operation between educationalists and employers, safeguarding that students are provided workplace-based learning and mentoring.

From January 1st 2002, the reform with AVE became a regular part of the Swedish system of continuing vocational training. With the establishing, the parliamentary committee that had earlier been responsible was dissolved and a new authority, the National Authority of Advanced Vocational Education (NAAVE) was formed instead. The task of NAAVE besides assessing applications monitoring and evaluating the quality of the programmes is also grants financial support.
6 CONCLUSIONS AND DISCUSSION

In the following sixth and final chapter, the conclusions have been divided into three sections reflecting the research questions formulated in chapter two. The chapter concludes with a discussion regarding implications of the theoretical and analytical perspectives used, and also implications for further research.

6.1 Main Driving Forces behind the Reform Formulation with AVE

The aim with the first research question was to explore the contextual background in which the reform with advanced vocational education was formulated. As the findings of the two case studies exploring this research question indicate, the main driving forces could be divided into an international and a national level of concern which are intertwined with each other.

6.1.1 International and National Concerns in Formulation

From the findings in Paper I, it is suggested that the international concerns have been influential in the formulation process of AVE. With concerns reference is made to the development and transformation of VET-systems that could be observed in many countries around the world during the 1990s, and where the thrust for change is advocated by primarily technological and economical reasons, but also a general perception among policy-makers not to deviate from the so-called ‘high-skills road’ (See Brown 2000). Hence, it is argued that the underlying global concepts or discourses of flexibility, transferability and mobility have been adhered to when national reforms are being formulated given that the concepts are filtered to fit the particular national contexts. These contexts include the relationship between the State, Labour and Capital and the Production system including labour market policies and boundaries of industrial relations (See Ashton 2004).

From a national perspective, findings from Paper II suggest that the formulation with AVE was mainly initiated by concerns in working life, i.e. developments in production technology and work organisations, that in combination with the perceived low level of educational attainment within the Swedish workforce, ultimately threatened the competitiveness of domestic industry and hence the economic growth. Besides the economic structure were also the increasing levels of youth unemployment another strong reason for formulation. As a consequence, the State and the central level stakeholders had to radically rethink their ideological standpoints negotiating fundamental and indeed, conflicting issues of vocational training. These issues were whether VET should be
organised within the public educational system only or within an independent organisation; should VET primarily be general or vocationally oriented; and should private industry, as complements to public schools, be responsible for supervising and financing workplace learning.

Another significant national concern during this period of time was probably the referendum and decision by Sweden to enter the European Union in 1994. With the decision to participate and with the following year of 1996 proclaimed as ‘the year of lifelong learning’, formal exchange of educational ideas and harmonisation also might have influenced domestic educational policy. Finally the national change in supporting a more flexible delivery of CVT based on a demand-led mode of functioning is likely to be explained by the gradual transformation of the Swedish society towards a service-based economy that took place during the 1990s. The ‘introduction of market discourse’ as stated by Finlay et al. (1998) which sent ‘shock waves’ in terms of deregulations within economy and international trade, together with the massive privatisations of what had earlier been part of the public welfare state, probably created the grounds for this gradual change of the collective mind.

6.2 Implementation of AVE

From the context of formulation to realisation, findings from this study indicate that implementation of educational policymaking is not a simple, linear development, but rather a complex, sometimes fierce process where different ideological beliefs, motives and commitments are clashed against each other. In this section the focus is on realisation of AVE within the institutional framework and within working life.

6.2.1 Realisation of AVE within Institutional Framework

Considering the process of realisation among central level stakeholders, the findings of Paper II suggest that there was a clear shift of rhetoric before and after the three years (1996 to 1999) of the pilot project. As the findings indicate, the actions that were based on the government report presented in 1995 were characterised by strong ideological disagreements. The conflicting debate circulated mainly between the employer and employee confederations and their affiliates. The LO confederation and Metal Workers’ trade union during this time held a traditional socialist standpoint arguing for the organisational and economical structure to be designed in a centralised and integrated style, keeping the public-funded and controlled VET system intact. In particular, the issue of private sponsoring as a means of financing the reform with AVE was indeed a controversy that also triggered the TCO confederation to warn for risks
of rigidity. Contrastingly, the employers represented here by the SAF confederation, strongly supported the report, contextualising their long-time requirements of opening up the schools for market thinking which, in their opinion, would force educationalists to replace obsolete knowledge with little or no connection to the realities within working life.

However, in the aftermath of the Pilot Project, a clear-cut ideological difference between the requirements is harder to find. As the findings indicate, the attitudes with the exception of the Metal Workers’ Trade Union and the National Agency for Education, had radically changed towards something more of a neo-liberal point where trendy concepts such as individuality, market thinking, choice and globalisation were used. Gone was the requirement of merging AVE with higher education and the explicit warnings that anything outside higher education would lead to regressive dual systems thinking, and thus the creation of a ‘second best school’ attitude.

Interestingly, although the trade unions were the most critical stakeholder of all in this case, the same unions were now in favour of a new and separated organisation in charge of higher vocational education. The trade unions also, rather uncritically, accepted the fact that AVE is principally demand-led in its design and acknowledged that individuals have responsibility for their own decisions and initiatives. Thus, looking at how AVE was finally realised at a structural level, the findings clearly suggest that the employee stakeholders did manage to establish their organisational and economical requirements, while making the largest ideological concessions from an original point of view.

Exploring what the significant factors in the policymaking process enabling the stakeholders to reach a state of consensus-like situation were, the findings suggest that factors are found at two different levels: organisational and societal. Concerning factors of organisational level, linked to theoretical works by Mitroff (1983), Ax (1999), Calder and McCollum (1998), Finlay et al. (1998) and Heclo and Madsen (1987), one can see that with the government decision to launch the pilot project, the main stakeholders were in fact put into ‘quarantine’ for three years. The metaphor implies that although stakeholders initially had strong differences of opinion, they were given a common responsibility, which together with the work on a daily basis of getting the project running finally resulted in a common view, a strategy very similar to the concept of ‘building consensus’ as described by Finlay et al. (1998).

In addition to organisationally oriented factors, significant events occurred in the rest of the Swedish society that indirectly affected the policymaking process. One of these factors was the change in political power. While a centre-right government commissioned the first study of vocational colleges, the outcome of
that report was later approved by a Social democratic regime. With the strong historical bonds between the LO confederation and the Social democratic party, it is plausible that the strong criticism of the first report was part of a larger political mobilisation where, in this context, the rather small issue of higher vocational education was included.

6.2.2 Realisation of AVE within Working Life

Investigating the realisation of AVE within working life, the aim of paper V was to explore the intentional and actual design of workplace learning, and the practical implications of these new models of training. In order to have a frame of reference as similar with respect to organisational structure and the social and cultural contexts as possible, the design of workplace learning within AVE was cross-nationally compared with the Finnish reform of Polytechnics.

Analysing the formal differences in terms of planning workplace learning between the two reforms, the findings indicate similarities as well as differences. On an organisational level, the two vocational educational reforms appear to be designed in a similar manner where a range of the course programmes are dedicated to active learning at a workplace. However, two important differences were noticed. Firstly, while the length of practice within AVE programmes is approximately one-third of the programme with the possibility of adjustment depending on industry's production cycles, the equivalent length of training within Polytechnics is fixed depending on the educational sector. Secondly, while single course providers and employers in AVE were left with a high degree of freedom in allocating the training periods within the course programmes, the Polytechnics have basically two training forms with different focus; the practical training and diploma projects.

From an analytical point of view, the various models of workplace learning in AVE could be analysed as a form of ‘situated learning’ as conceptually developed by Lave and Wenger (1991) and Wenger (1998). The purpose of students spending several weeks and sometimes even months at a workplace within an enterprise is not only for testing and improving their practical skills, abilities and theoretical knowledge under real circumstances. Equally important, in sharing everyday practices with the supervisor and others learning the informal rules, values and ethics connected with the vocation the students are intended to become socialised into the profession, and thus mainstream members of the workforce in a manner that simply cannot be taught by school-based training only – a pedagogical idea corresponding well to the Lave and Wenger (1991) perspective on how legitimate peripheral relations and communities of practice underpin learning and identity formation.
6.3 Results and Experiences with AVE

As might be expected, the completion of such an extensive research project exploring the processes of formulation and realisation of AVE generates a large numbers of results in many dimensions of which only a few of them can be presented. However, the findings in Paper III suggest that AVE, with some minor setbacks, has been successful. The indicators for this general conclusion are, firstly, that students have been attracted to the programmes offered around the country. Secondly, that course providers have mostly undertaken their duties in a serious way. Thirdly, that the companies involved have supported the scheme by providing sufficient places for workplace learning and, fourthly, that the vast majority of students have obtained jobs related to this training after their graduation.

Focusing on two of these indicators further, this section concentrates on the experiences with quality assurance in terms of educationalists opinions about systematic self-assessments, and secondly graduates' transition from AVE to working life.

6.3.1 Experiences with System Evaluation for Educationalists

In the fourth study (Paper IV), the main aim was to explore attitudes among educational organisations to the use of system evaluation for quality improvement in Swedish continuing vocational education. To investigate the attitudes towards the use of system evaluation in the AVE-project, a model originally developed by Lundin and Söderholm (1995) was used. According to them, the encounter between an evaluator and the activity to be evaluated was positive. This depends in part on the expectations the two parties have and in part on how the party being evaluated experiences the evaluation.

The findings show that a majority of the respondents participating in the case study perceived the work of the evaluation team as both forward-pointing and confidence-inspiring. In terms of the evaluators' roles (see chapter 5 for elaboration), the work has been perceived by most of the respondents to be the angel role, that is role III. There is thus some support for the use of models of the systems-evaluation type based on an interactive and learning attitude.

6.3.2 Graduates Experiences on Transition from AVE to Working life

In the sixth and final study (Paper VI), the aim was to explore the experiences and opinions of the graduated students on how AVE corresponds to the demands
and requests of the labour market. Surveying the graduates, the study was performed using questionnaires distributed by the help of Statistics Sweden.

Overall, the results were impressive showing that the majority had at the time of the investigations either found a job or started their own businesses and in addition that of these the majority was found to be working within a profession corresponding to their training within AVE. Of the graduates not employed at the time of the investigation the majority had gone on to study at Universities. It was not possible to know the reason, whether due to difficulties of getting a job or a change of plans.

Taken together then, the findings of paper VI suggest that the organisational and educational features introduced with AVE are, with some exceptions, successful for graduates' transition to working life. Based on the literature review that was performed for this case study, the findings also suggest that the organisational approach and educational content provided with AVE fit well with the general trend in higher vocational education in Europe at the moment, developing curriculum with a more broad and advanced content than initial and job-specific ones (van Wieringen and Attwell 1999).

6.3.3 Concluding remarks

The research results presented in this study indicate that with AVE some new thinking within Swedish CVT is being introduced. The formulation and realisation of AVE is significant not only because bridges between the two worlds of education and working life are established at a more formal level, but also because with the launch of AVE came a strong indication that CVT in itself could be transforming from being a principally supply-led system, towards a more demand-led mode of functioning where the position and influence of industry and commerce are significantly strengthened. Whether this process of transformation will continue is far too early to determine. As this thesis has shown, there are a number of stakeholders at different levels and contexts in society who probably see the future of CVT from different and conflicting perspectives. In addition, national educational agendas are increasingly dependent upon global developments in working life and labour markets.

6.4 Discussion and Further Research

Based on the findings, in this section research implications of the theoretical and analytical perspectives used in this study are discussed. The section concludes with implications for further research.
6.4.1 From Formulation to Realisation: Theoretical and Analytical Implications

As stated in chapter two, the theoretical aim of this doctoral thesis is to elaborate the analytical model of educational reform development by Lindensjö and Lundgren (1986; 2000). Focusing on what happens when the two contexts meet and also how this interaction develops, (as indicated in chapter three) previous research studies within the field suggest that the original model is somewhat delimiting since it leaves out the complex mechanisms of social interaction between organised interests (Hultman 1992; Kim 1998; Ahlgren and Gummesson 2000). In addition to activities not anticipated by the model, the referenced research studies on the adjacent concepts of planning, steering and implementation (Lassnigg 2001; Sannerstedt 1992; 1997), stress that developing public reforms is very much an intertwined activity between the political and administrative contexts, and further that reforms are not always developed strictly chronologically, but sometimes the process is reversed since the strategy of commencing implementation before the political decision and legislative framework is settled, fits better with the present political agenda (Brunsson and Winberg 1990). Altogether, these previous research contributions and contentions are theoretically important since they together provide evidence for further heuristic analysis developing the model further.

In terms of implications for the theoretical and analytical perspectives used within the research field, this study has contributed to the understandings in three respects. Firstly, by allocating the model into the particular settings of continuing vocational training, the study has shown that the model can be analytically broadened to not just anticipate the relationships between the State and educational institutions that has been the principal aim in previous studies, but also to encompass representatives of working life and their issues. Secondly, by introducing the concept of Stakeholders (Finlay et al. 1998; Ax 1999; Mitroff 1983) and relating it to the model, this study has contributed to diminishing the previously reported analytical defeats of not anticipating patterns of social interaction between organised interests. That is both within the two contexts and also between them. Thirdly, by using the concept of stakeholders, this study has contributed to the understandings of how reform development within continuing vocational training is possible in the first place, since this suggests unification of multiple conflicting interests. In particular, this study has corroborated findings by other published studies within the field (Ahlgren and Gummesson 2000; Finlay et al. 1998) that between the formal contexts there is also embedded an intricate framework of social mechanisms turning open conflicts into negotiated consensus. Labelled in this study as ‘quarantine’, the findings suggest that besides time and international developments, the essential ingredients maintaining this framework are mutual mindsets and collective trust.
6.4.2 Further Research

The findings of this thesis point to several implications for further research. This is perhaps not surprising since the topic of continuing vocational training is related to multiple research disciplines. In this section, the author would like to address three research areas and related issues.

The first area concerns the demand-side of vocational training which comprises the debate and requests for certain performance addressed by external participants including groups which address their requests based on gender and ethnicity. As this thesis has shown, the debate is acted on both the national and international scenes which have become intertwined with each other. One particular area of interest is the increase of demands for a more ‘flexible delivery’ of vocational training put forward with the argument that combining learning with other activities is a benefit to society. At the same time, it is not always clear who is to benefit and how training should be organised. Hence an overall research topic would be to critically examine the discourses promoting the advancement of skill creation and vocational knowledge.

The second area refers to the supply-side of continuing vocational training. Of particular interest are the issues of educational planning and implementation. One result of this thesis is the understanding of networks as an increasingly important principle for organisation of stakeholders in the formulation process. This is particularly argued by proponents of “New institutionalism” within organisational theory. Hence it would be interesting to further explore various models of networks within continuing vocational training and investigate the social mechanisms for assembling, interaction and instances of termination. Since educational planning has become more de-centralised, this suggests that further studies should be designed to explore a specific local or regional context only.

The third area for further research concerns the conditions for which educational and occupational systems are being integrated in society. One interesting issue is the mechanisms for transition from vocational education to working life. As the literature review in this study has indicated, the ‘old’ models based on conformity and cohesion have become somewhat invalid with the consequence that researchers are increasingly interested in post-modern theories based on the concepts of reflexivity and uncertainty. However, making the transition is not the end of story. It is equally important to study what is happening at work for those who have succeeded. Hence, developments in employment conditions, work assignments and skill requirements are all important issues to further research as they reflect the successes and failures of the integration between vocational education and working life.
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Trends and Development in VET Systems: Flexibility, Transferability, and Mobility Issues

Trends and Development in VET Systems: Flexibility, Transferability, and Mobility Issues

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Abstract

The purpose of this article is to review international findings on developments in vocational education and training (VET) systems relative to the critical issues of flexibility, mobility, and transferability. In particular, the author focuses on how global, economic, and technological trends have affected VET systems and how VET systems have been adapting to those trends. The author concludes that the primary driving forces behind the trends are rapid technological and economic developments to which VET systems have responded with stronger links to industry and commerce and with deregulation.

Introduction

The diffusion of information and communication technology (ICT) and the integration of economic, demographic, and cultural changes underscore the large technological, economic, and social developments that comprise global trends, often referred to as “Megatrends” (Achtenhagen, 1994; Tessaring, 1998). During the last 20 years, Megatrends strongly affected the structure of labour markets as well as vocational education and training (VET) systems. Highlighted by the evolution of microelectronics and computer networking, the information technology revolution reshaped production processes (Castells, 1996), as exemplified by flexible specialisation (Piore & Sabel, 1984), and work reorganisation, as exemplified by lean production (Womack, Jones, & Roos, 1990). The evolution also contributed to significant changes in occupational structures and skill requirements (Zuboff, 1988). Although writers from earlier periods in western history challenged the magnitude of technological, economic, and social developments (Rodrik, 2000), few individuals disputed that the changes brought about by these developments were unique in regard to the speed and the depth at which they evolved (Webster, 1995). The scope of this article is to explore some of the effects that
technological and economic developments have had on VET systems, with the situations in Australia and Sweden serving as specific examples of how nations can adapt their vocational education systems to global trends.

**Flexibility, Mobility, and Transferability**

Megatrends pose grave implications for the performance and design of VET systems. As instruments of employment policy, VET systems facilitate adaptation to economic and social changes. Consequently, they are among the first institutions to address the changing structure of labour activity (European Centre for the Development of Vocational Training, 2000). Megatrends exist in all countries of the European Union, central and Eastern Europe, the United States, and along the Pacific Rim (European Cooperation in the Field of Scientific and Technical Research, 1997). Therefore, it is no coincidence that many national VET systems are undergoing major structural reforms. The emphasis of the transformation process is on flexibility, lifelong learning, and closer cooperation between VET and industry and commerce. Extensive effort and funding have been invested in developing and optimising national VET systems' capacity to promote mobility and transferability in the labour force. A brief analysis of these concepts follows.

From a national VET systems perspective, Nijhof and Streumer (1994) argued that flexibility is a complex phenomenon that has different conceptual underpinnings depending on the category of the system. Differentiating the systems with regard to (a) input, (b) process, and (c) output, Nijhof and Streumer suggested that flexibility is a system level concept that is superior to transferability and mobility. In regard to input, flexibility takes the form of the responsiveness with which VET institutions make decisions and counteract contextual factors, such as Megatrends, that apply constant pressure for change. As a process concept, flexibility involves the internal processes of individual VET institutions. In this sense, flexibility includes how well institutions manage to adapt to new situations, including developing curriculum, training trainers, using new technology, and providing students with learning tools and techniques that are necessary to meet the changing requirements of working life. The main assumption underlying this aspect of flexibility is the concept of transferability, which is defined as an individual's ability to learn and apply new skills in new situations (Nijhof & Streumer). As an output concept, flexibility relates to the qualifications developed in VET institutions. In this part of the system, flexibility intercepts the concept of mobility, which is defined by how well VET institutions enable students to enter the labour market and to move from one occupation to another.
Although flexibility, transferability, and mobility relative to VET systems are recognised worldwide (European Cooperation in the Field of Scientific and Technical Research, 1997), there has been a lack of consistency in regard to their meanings and uses. From a European point of view, the confusion derives from the fact that the concepts are analysed not only from a VET systems’ perspective, but also from the employers’ and the employees’ perspectives (Johansson, Björkman, Olsson, & Lindell, 1998). For example, Brown (2000) discussed VET development in relation to social mobility in the United Kingdom. In addition, these concepts have political and ideological underpinnings. Young (2000) argued that flexibility and mobility are not merely technical characteristics of VET systems, but they also mask statements of neo-liberal values. In essence, Young proposed that there are some contexts in which it would be necessary to be inflexible (e.g., changing jobs and transferring skills in the transportation or industry process sectors where a high level of individual responsibility and the ability to make quick, informed decisions are required). In those situations, it would be necessary to consolidate expertise and to build on knowledge based on experience. Young called for a more lively debate on these issues.

**Technological Developments**

In the process of transforming VET systems, particular interest has been focused on the large demand for distributed education using information technology (IT), such as the Internet. Many countries have made extensive efforts to develop this technology. One example is Hong Kong, where a number of e-Learning schools offering virtual campuses and a wide range of courses emerged in only a few years.

Widespread use of electronically distributed instruction highlights research efforts and the development of new teaching and learning practices (Lasonen, 2000). According to Lasonen, ICT has expanded learning environments and has promoted (a) research-based learning and problem-solving, (b) student self-evaluation skills, (c) student motivation, (d) organisational learning, and (e) closer ties between school and workplace cultures. Technology particularly motivates learning by making it possible to organise individualised work processes, to vary task contexts, and to link with societies’ authentic occupational environments. Network-based action models and new technologies enable students to move between schools and social institutions in a natural way, thus expanding learning environments beyond the confines of school to occupational activities and other contexts outside of formal education.

To ensure that ICT supports high-quality learning, analyses of conceptions such as self-directed, goal-directed, and situation-specific
learning must be included in the process of building future learning networks. One central strategy to develop vocational education and training within the context of ICT is to construct networks and communities that support lifelong learning and have the aim of supporting local and international enterprises in different cultures.

With rapid technological development, the question of who will conduct learning in the future becomes very important (Fleming, 2000). With numerous innovations and the expansion of commercialised learning, the world of education and training is increasingly complex. Such developments incorporate the growth of corporate education, for profit training, and online delivery. Corporate universities, which are organisation-sponsored learning programs focused on improving the competitive edge of the company through individual and group development, exist predominantly in the United States where there were 1,600 of them in 1997 (Fleming). Corporate universities are associated with three broad categories of learning:

1. Task specific or job related (i.e., improving the efficiency and productivity of the workforce).
2. Parallel and transferable skills (i.e., creating a more flexible workforce).
3. Personal development (i.e., providing knowledge and skills enabling individuals to make employment and career changes).

Corporate universities, which are predicted to grow rapidly in Europe within the next few years as well, pose a serious threat to smaller academic institutions in much the same way that local shops have suffered with the growth of large supermarkets. These changes raise issues for universities, which, in the future, are less likely to be places where a body of knowledge is made available to young school leavers and more likely to be providers of flexible learning opportunities for a more heterogeneous student population.

**Limitations of e-Learning**

There is no doubt that electronically distributed learning is one of the most important future platforms for building lifelong learning strategies. Even though the present development of e-Learning seems promising, it needs serious development to meet future educational goals. To do that, several technological, economic, and social barriers must be removed. First, the growth and wide distribution of information do not in themselves indicate good function and high quality of knowledge. Uncritical implementation of e-Learning could, in a worst-case scenario, lead to one-sided
and unsubstantial information gathering. Second, although e-Learning is an excellent complement, it can never fully replace the complex process of actual learning that requires both a sense of team spirit and eye-to-eye contact with other people. Third, there is concern regarding the imbalance of access to the Internet between developed and developing countries. Even though the development of ICT is recognised as a global process, approximately only 15% of the world’s population has access to the Internet (Lasonen, 2000). Moreover, the problem with accessing ICT is not just a problem for developing countries. Electronically distributed education requires not only computer equipment, but also expensive investments in technological infrastructure, such as a broadband network. This in turn imposes a risk of shutting out marginalised groups, such as people living in rural parts of western society as well as in developing countries.

Implementing new technology also involves many difficulties on the organisational level. For example, the managers responsible for establishing the Continuing Learning Centre (CLC), an independent company within the Hong Kong Training Council, experienced several problems (Tsui & Yue, 2000). In preparing and delivering online course material, software interface, interactive training courses, and library services, the instructors experienced an enormous increase in workload. They also found that the production cost for implementing courseware was high due to shortages in the ICT workforce, and there was a technical problem with the Internet itself in regard to reliability and transmitting speed. Finally, instructors and students experienced decreased personal lives as the “anytime, anywhere” nature of e-Learning blurred the line between work and the private sphere.

**Economic Developments**

From the theoretical underpinnings of educational attainment and economic outcomes, VET systems have a history of being regarded with scepticism and criticism by economists, particularly those from a neoclassical tradition. The argument for rejecting VET as a vehicle of economic growth is a lack of faith in the ability of VET systems to anticipate long-term labour market needs and to sequence highly focused educational activities in response to those needs. According to human capital theory (Becker, 1993), the labour market is dynamic and difficult to predict; therefore, the idea that VET systems will educate the appropriate number of students with the right skills in a manner that will balance supply and demand in the labour market lacks credibility. Instead, proponents of human capital theory place emphasis on types of education that promote versatility and resiliency and enable students to move from one job to
another (Becker). Thus, they tend to view academic forms of education as a better option for developing nations.

The empirical literature and much of the research done in the United States supports the neo-classical argument. According to Monk (2000), VET tends to be more costly to implement than more academically oriented education. The findings also suggest that vocational education students receive smaller economic and social returns than students from academic education programs. However, the findings are ambiguous in regard to how return rates are calculated in the education sector. Moreover, there are empirical findings suggesting that employers tend to value occupation-specific skills over solely generic skills (Monk).

The empirical findings on the economics of education suggest three strategies. First, because it will probably become even more difficult to anticipate labour market skills in the future, vocational education must be connected to the world outside of the classroom. Second, because labour markets are fluid, VET systems must continue to evolve if they are to provide students with the skills they will need to advance in their careers. This suggests the importance of including both academic and vocational elements in a common curriculum. Third, there is a need to develop an appreciation for learning and to encourage students to become lifelong learners. In regard to this issue, it is important to note the importance of instilling a sense of pride in workmanship and work ethic within vocational education.

**VET Developments in Australia**

In Australia, the VET system changed radically in the last 10 to 15 years (Crawford, 2000). Crawford identified three characteristics associated with the changes:

1. Rapid spread and need for IT.
2. Increase in job opportunities in ICT.
3. Pressure from competitors outside of traditional education institutions.

In the year 2000, about 25% of Australian households were connected to the Internet; about 20% of business enterprises were involved in Internet sales, and around 360,000 people, or 4.2% of the total work force, were employed primarily in ICT related activities in Australia (Crawford, 2000). The relatively low rates leave room for continuing, rapid progress. In the next 5 years, the three fastest growing areas of economic activity are projected to be in Internet services and support: (a) multimedia content, (b) development, and (c) services consulting. The demand for skilled workers is expected to increase in the same period as well, with an
additional 169,500 people expected to be employed in high skill sectors (Crawford). Finally, as a result of ICT, there is increased pressure from different competitors for a percentage of VET markets. The pressure on the VET sector reflects global growth of the ICT industry.

In regard to formulating strategies for the described future scenario, Crawford (2000) emphasised the need to promote cross-sectional and cross-industry partnerships. This entails sharing knowledge and expertise and also understanding the relationship between training and profitability of the enterprise. There is also a crucial need to initiate web-based, interactive education.

Besides the diffusion of ICT in Australia, recent studies emphasised the impact of globalisation on fundamental changes in work patterns (Robinson, 2000). Although these changes have affected learning, education and training systems have not kept pace. Robinson argued that “education and training approaches needed to prepare people for work of previous generations—that served us well for most of the 20th century—will not continue to meet our demands in the next century without further reforms” (p. 4). In addition, he emphasised that education and training systems in all nations face tremendous challenges to keep up with the pace of change because many of the technical skills that will be needed in the next 20 years have not been developed yet.

Another key challenge to VET systems is the demographic downturn of lower birth rates and smaller families. The world’s rapidly aging population will have a profound effect on skill development and economic and work factors associated with globalisation. The dramatic shift in population structure in most western nations means that education and training systems will need to focus more on adult learning needs. Future skill development policies will need to focus on learning and skill needs of people in all age cohorts. To handle this development, three key strategies promoting diversity, flexibility, and greater customisation of education are stressed

1. Develop learning communities, rather than focusing on the education and training of individuals.
2. Develop collective learning, stressing group competencies, skills, and knowledge.
3. Develop more strategic and effective approaches to workplace learning.

As a result, the Australian national education system must strive to ensure that all post-compulsory education imparts generic skills. To accommodate the vastly increased amount of adult learning that will need to occur, VET systems must overhaul post-compulsory education.
Furthermore, there is a need to promote strategies for lifelong learning and to provide new kinds of skills. Many workers in the new millennium will need more interpersonal and relational skills, and more analytical and interpretative skills will be needed to handle and make sense of the enormous amount of available information. Also, workers will need more entrepreneurial skills irrespective of whether they run a business or work as employees.

**VET Developments in Sweden**

The Swedish system of continuing vocational training (CVT) is viewed as a necessity for maintaining a highly qualified labour force in the face of rapid technological and industrial change. Well-educated employees are a prerequisite for adaptation and renewal. In addition, the social partners (i.e., industry policymakers and planners, employers, employee bodies, and education and training providers) agree that almost all of initial vocational training (IVT) and most CVT (with the exception of in-company training) should be publicly funded, as is the case in Sweden today. This is due in part to the extensive representation of the social partners in the various administrative bodies, especially at regional and local levels. Providers of CVT can be classified as public institutions, trade unions, employer associations, private enterprises, and training companies (Lindell & Adams, 2000). Individual incentives for participating in CVT are determined to a large extent by the new labour market context and particularly by the workers’ motivation to avoid unemployment. With education and training becoming an increasingly necessary tool to respond to new skill demands and to create a more efficient and flexible work organisation, it seems reasonable that it also has an impact on individual study motivation and incentives for lifelong learning.

Over the last 5 years, the CVT system has been subject to debate regarding its future content and performance. The primary issue for this debate has been the problem of adapting to the rapidly changing labour market. One of the single most important factors behind the transformation of the labour market is the fast and almost overwhelming evolution of ICT (Lindell, 2000). The foundation for the evolution, besides an increasing openness to worldwide technological and economical shift, has been major national investment programs that support research and development and the necessary high technological infrastructure. A report commissioned by the Ministry of Education and Science (1995) concluded that there is a need for drastic improvement in regard to a higher degree of flexibility and swiftness by which CVT responds to demands for skilled labour. The report also concluded that in conjunction with improving technical skills, there should be increased emphasis on new and different methods for
learning a vocation as well as on generic skills. For example, this could mean the ability to work and communicate in a team context, the ability to think in abstract terms, and the flexibility to work on multiple projects simultaneously.

Several trends pose particular challenges to Swedish VET systems. For example, youth employment is a major problem in Sweden, as in most member states of the European Union. In Sweden, this problem has been accompanied by an increasing regional imbalance between the middle and northern parts, which suffer from high rates of unemployment, and the growing cities of the south (Lindell & Adams, 2000).

Another challenge to Swedish VET is the discrepancy between education level and the amount of CVT received. Whereas well-educated people receive extensive CVT, poorly educated individuals receive very little. A troubling issue is that if the latter group cannot develop sufficient competence in their work today, they will not be able to perform job tasks in the future. To countermeasure this problem, the government appointed a commissioner to analyse and design a system of individual learning accounts. The financial frame set out for individual competence development in the bill amounted to SEK1.35 billion for the year 2000 and SEK1.15 billion annually thereafter (Lindell & Adams, 2000).

**Advanced Vocational Education**

In 1996, Sweden launched the pilot project on advanced vocational education (AVE), a new component of CVT, to respond to higher skill demands (Ministry of Education and Science, 1999a). The purpose of AVE is to meet new and higher demands for skilled labour in industry and commerce and to decentralise curriculum design from a national to a local level. With AVE, one third of the course time is devoted to advanced application of theoretical knowledge at a workplace. The intention is that courses should not be organised as a traditional traineeship period, but rather that they revolve around active workplace-based learning and problem-solving in an overall educational context. The length of AVE courses ranges from 40 to 120 weeks. Courses are built around close cooperation between enterprise and various course providers, including upper secondary schools, municipal adult education, higher education, and commercial training companies. Table 1 shows the breakdown of course providers.

The number of private training companies is an important development and indicates a new trend. The education system traditionally has been operated and controlled solely by the state. There currently are no restrictions in terms of the sectors in which AVE is provided; AVE is open to those coming directly from upper secondary school as well as to people
who are already employed and wish to develop their skills within a defined area. The pilot project with AVE has been successful at enabling students to find jobs. An evaluation study of the AVE reform revealed that over 75% of the students received a job 6 months after graduation (Ministry of Education and Science, 1999b). In May 2001, the Swedish parliament expanded the number of AVE course programs and decided that AVE would be a regular part of the CVT system through January 2002 (Proposition 63, 2000/2001).

### Discussion

This article reviewed current development of VET systems in the frameworks of flexibility, transferability and mobility. From the findings, it is evident that there is an international trend in the transformation of VET systems, the driving forces behind which are primarily technological and economical. The direction is toward highly liberal systems that are integrated with industry and commerce and adapted to follow the swings in production related to volume and customer preferences. Though the situation for VET-systems varies slightly from country to country, depending on each country's particular conditions, it is possible to extract the essence of the trends from the findings and to summarise them in the four-field matrix presented in Figure 1. The Y-axis represents the different levels of the transformation process, and the X-axis represents implications for vocational education as a system and for the individuals within it.
On a national systems level, combining curricula from different educational bodies, thus creating flexibility, is becoming necessary to meet the demands of economic growth (Monk, 2000). Sweden accomplished this by launching the pilot project for advanced vocational education in 1996. Because courses and course providers can change from year to year, AVE remains flexible and can reflect the changes of working life. On an international systems level, it becomes important to build and participate in various networks. The rapid pace of expected changes means strength, especially for developing nations. There probably will be serious consequences for those managers and practitioners of VET who choose to stay out of the information flow. For the individual, the trend means an increasing transferability across chosen paths towards certification or retraining for a new occupation in a lifelong learning society. Furthermore, the concept of mobility means increased freedom to change employers, thus creating new career patterns that allow movement both geographically and within the international system of vocational education.

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From Conflicting Interests to Collective Consent in Advanced Vocational Education: policymaking and the role of stakeholders in Sweden

From Conflicting Interests to Collective Consent in Advanced Vocational Education: policymaking and the role of stakeholders in Sweden

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ABSTRACT This study considers the policymaking process of forming a new tertiary vocational education and training (VET) policy in Sweden during the 1990s, and the influence that external stakeholders played in that process. Since the late 1960s onwards, the VET system in Sweden has been mainly integrated with general and school-based education. Due to the changes in working life VET has recently undergone a transformation process moving towards a more demand-led mode of functioning. Following perhaps the most significant education policymaking process on the reform of advanced vocational education, the study by analysing requirements and policy recommendations made by the six largest employer, employee and public education bodies from 1995 to 2000, suggests that private industry and commerce managed to establish their requirements, while the employee stakeholders made the largest concessions from an ideological standpoint.

Introduction

There is little doubt that interest and concern in educational policymaking and planning for an effective provision of vocational education and training (VET) and the bridging towards the labour market has gradually been accentuated. Effective provision of VET is commonly regarded as highly significant in order to maintain and enhance the skills and competences of the country’s workforce, enabling national competitiveness and economic growth (Grubb & Ryan, 1999; Hodkinson & Unwin, 2002). Equally, an effective provision of VET is perceived as necessary, supporting many different people in their everyday struggle to find an appropriate work/life balance by providing both education packages for those already working, to basic skill courses for less advantageous groups, preventing social exclusion (van Wieringen & Attwell, 1999).

Although the European countries are today subjected to similar kinds of socio-economic pressure, the national differences in how educational policymaking and planning achieve an effective provision of VET is, as a consequence of political,
economical and historical traditions, very diverse (Hodkinson & Unwin, 2002). For example, in Germany the government intervenes strongly to maintain the social partnership with employers and trade unions, while the government in the UK reversely intervenes as little as possible, allowing the employers to shape the VET system themselves (CEDEFOP, 2000; Lassnig, 2001).

Educational Policymaking by the Model of 'Structured Consultation'

In Sweden the formal authority and responsibility for educational policymaking and planning of VET ultimately rests with the Parliament and Government (Lindell & Adams, 2000). However, the informal influence and power exerted by various organised interest groups—stakeholders—of VET is rather substantial. The existence of organised interest groups is, of course, not unique. However, what distinguishes Sweden from other countries is the extent to which such non-parliamentary bodies, i.e. employer and employee confederations, single large trade unions, large companies and national authorities among others are generally regarded as necessary and sufficient building blocks for national policymaking (Heclo & Madsen, 1987; Rothstein, 1992). In order to achieve consensus and to avoid deadlock in Swedish educational planning, a complex bureaucratic system of 'structured consultation' has been developed. This means that those recognised by the government to have a stake in an issue are offered due process in the steering system that builds on clearances, joint working groups, and parliamentary commissions affected by joint decisionmaking (Heclo & Madsen, 1987). The stakeholders are thus regarded as a permanent feature of the Swedish political landscape and have, as a consequence, built large and well-staffed research departments whose investigations and assigned experts fit well into the ongoing work of commissions. Consequently, developments within VET and especially reforms concerning tertiary education, i.e. continuing vocational education and training (CVT)—which in Sweden comprises all forms of post-secondary vocational training, including labour market and in-staff training—has since the late 1930s onwards been a joint responsibility of the state and the stakeholders (Lundahl, 1997; Abrahamsson, 1999).

Changing Industrial and Political Structure

Although the corporate model with 'structured consultation' has unanimously been regarded as important for the enrichment of vocational education and for the enhancement of participative democracy (Rothstein, 1992), the various stakeholders and state have through the decades had different and often strongly conflicting interests and objectives in how CVT should be designed and implemented as the industrial and political structures in Sweden changed. Seen from an employer perspective, the influence was especially successful in the 1950s when VET was essentially demand-led by the many trade schools that emerged to fit the growing industrialism and the build-up of the welfare state. This influence, however, drastically diminished in the late 1960s when the Social Democratic government decided to change education policy and launched a reform that intended to merge
VET with general education into an integrated upper-secondary school system (Lindell & Johansson, 2002). At the centre of the ideological debate following the decision to change from a dual to an integrated national education system, and where VET largely became school-based, was the question of access to education without socio-economical and gender biases, a symbol of the old class system that the Social Democrats and the trade union confederation jointly set out to erase (Rubenson, 1995). The education VET policy from 1970 onwards resulting in a common core curriculum for VET and general education meant, in a positive sense, a general upgrade of the qualifications of the workforce, and increasing the supply of competent workers (Abrahamsson, 1999). In a negative sense, the general qualifications may be too general. In particular, the institutionalised form of VET focuses more on what schools can supply in terms of simulated workplace environments, rather than on what industry and commerce actually needs. The lack of specialised VET programmes combining theoretical knowledge with workplace-based training outside schools became apparent at the beginning of the 1990s. Several studies indicated that the general level of education of the Swedish workforce had not followed the international developments and was lower than in most other OECD countries (SIND, 1991; SOU, 1993). The studies suggested that about 50% of the workforce within manufacturing industries had compulsory school education only (Ds, 1992; Aronsson & Sjögren, 1994; SAF, 1994).

The accumulated needs of upgrading the formal qualifications and adjusting VET towards the implementation in working life of new production methods such as flexible specialisation (Piore & Sabel, 1984) and new models of work organisation, for example lean production (Womack et al., 1990) together with a serious economic recession beginning in 1992 that hit Sweden very hard, ultimately challenged the current VET policy. The state and the stakeholders had to radically rethink their ideological standpoints negotiating fundamental and, indeed, conflicting issues of VET. These issues were: Should VET be organised within the public national education system only or within an independent organisation? Should VET primarily be general or vocationally oriented? Should private industry, as complements to public schools, be responsible for supervising of and financing workplace-based training? As a consequence, a range of actions and new educational reforms were introduced during the 1990s. However, from an education policy perspective, the most important reform was the launch of advanced vocational education (AVE) in 1996. The initiation of AVE was significant not only because successful bridges between the two worlds of school and working life were built, but also because it was a clear signal that tertiary VET altogether was about to change from a principally supply-led system towards a more demand-led mode of functioning, where private industry and commerce during the process of policymaking managed to strengthen their influence in a significant way to their advantage.

Aims and Research Questions

This study considers the process of education policymaking and planning of the new reform in advanced vocational education from the initial proposal in 1994 to January
2002 when AVE became a permanent part of the system for tertiary VET (CVT). In particular, the aim is to study the influence of the main stakeholders and their impact on the design of AVE as it relates to their needs. The reform is a particularly interesting case of how the process of educational policymaking works and shapes conflicting interests into more consensus-like situations. The first case study on AVE policymaking addresses the following research questions:

- Who are the different stakeholders involved in the reform of advanced vocational education (AVE)?
- What requirements on the reform of AVE did the main stakeholders put forward in the policymaking process and to what extent did they manage to influence the design in their favour?
- What are the significant factors in the policymaking process that enabled the different stakeholders to overcome their conflicting interests and reach consensus?

This study has three objectives. First, this study analyses the relevant theoretical and applied literature on the concepts of stakeholders, conflict and consensus building in educational policymaking. Second, this study analyses official remarks written by the main stakeholders. Third, this study analyses the differences between official rhetoric as stated in the policy documents and pragmatic agreements as seen by the government decisions following the negotiations.

**Stakeholders, Conflict and Consensus Building: three Concepts in educational policymaking**

The research field of educational policymaking and process is diverse, and to some extent uncertain since there are several competing theoretical approaches of understanding (Hill, 1993; Ozga, 2000). In the UK, recent studies have mainly focused on two different aspects. While the first aspect has, in general, involved a focus on how educational policy is *generated* in society, using a macro-related approach by analysing policy documents, the second aspect has focused on how educational policy is *implemented* into various communities and school organisations, using small-sample ethnographical models of research design (Ball, 1990; Bowe et al., 1992; Ranson, 1995).

In Sweden, the research field constitutes a much smaller body of knowledge, but has followed a similar pattern to that in the UK. The studies, with some exceptions, focus on the educational policy process from a macro level. For example, Rothstein (1992) analyses the foundations of the corporate model and the historical reasons for trade unions and employer associations' vast influence in domestic politics including educational issues (Rothstein, 1992). Using a more sociological perspective, Lundahl (1997) studies the two largest employer and employee confederations (SAF and LO, respectively) and the influence they had on education politics including vocational education in Sweden between 1944 and 1990 (Lundahl, 1997). Similarly, but paying more attention to the economic aspects, Olofsson (1997) studies the policy strategies between 1930 to 1970, when the importance diminished.
of the Joint Industrial Training Council, which includes the largest employer and employee confederations (Olofsson, 1997).

**Stakeholders**

Research in various fields such as policy and educational sociology, management theory and political science have together provided an interesting alternative way of analysing the process of educational policymaking and implementation by regarding the various actors involved as stakeholders. In addition, researchers have identified the stakeholders and how the process of educational planning and implementation varies between countries depending on their history, political system, and socio-economical structure (Finlay *et al.*, 1998).

The concept of stakeholder originally stems from management theory (Näsi, 1995). With the neo-liberal expansion signified by the market discourse in the beginning of the 1980s, the concept gradually diffused from the commercial to the political and educational arena (Finlay *et al.*, 1998). Since the mid-1990s, a growing number of studies have analysed policy changes and developments; in addition, studies about VET have used the concept of stakeholder (Brand, 1997; Calder & McCollum, 1998; Finlay *et al.*, 1998; Ax, 1999; Robinson, 2000; NCVER, 2001).

By definition, Johnson and Scholes (1999) suggest that stakeholders are individuals or organisations that can either influence or be affected by an organisation's actions (Johnson & Scholes, 1999). Mitroff (1983) suggests that one should distinguish between internal and external stakeholders. In the vocational education and training context, internal stakeholders are those single individuals, groups or organisations who affect and impact change within the VET system from the inside, e.g. students, teachers, curriculum writers, single education organisation and training providers. Conversely, external stakeholders are trade union confederations, national authorities, trade associations, large companies, lobbyists who exert their influence and impact change on VET from the outside, i.e. the macro-educational arena. Narrowing the definition somewhat further in order to delimit stakeholders from other non-relevant subjects, Mitroff argues that stakeholders have at least one of the six features shown in Table I. Moreover, Mitroff (elaborated in Ax, 1999) suggests that the stakeholder approach aims to map out the actors and the interests which play a role in their relationship. The stakeholder approach is aimed at determining the policy relevance of stakeholders, the identification of stakeholders and the interests that are at stake (Mitroff, 1983; Ax, 1999).

**Table I. Characteristics of external stakeholders**

<table>
<thead>
<tr>
<th>Purpose and motivation</th>
<th>Beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control over resources</td>
<td>Physical and positional resources</td>
</tr>
<tr>
<td>Special knowledge and views</td>
<td>Commitment (legal or otherwise)</td>
</tr>
</tbody>
</table>

*Source: Mitroff, 1983, p. 36.*
Conflict and Consensus Building

Inevitably, conflict arises when educational policy planning involves several stakeholders. Mitroff (1983) argues that any kind of policymaking process involving several different stakeholders should not be regarded as an easy, linear process. Because stakeholders often have different motives and objectives, they do not generally share the same view about problems and solutions. Thus, the process of involving stakeholders generally becomes a complex and messy method (Mitroff, 1983). Hidden agendas and the fact that power and influence is unevenly distributed among the stakeholders also results in conflict (see also Ranson, 1995). Consequently, the most influential groups often set the agenda and, thus provide the solutions.

Conversely, educational policymaking involving stakeholders also provides an opportunity for consensus building. Exploring the basic principles for achieving consensus by studying developments of VET systems within eight different countries around the world, Finlay et al. (1998) suggest four important strategies. First, there is a need for a joint recognition of the need for a change to take place. Recognition is often set by external stimuli such as a competitive threat or a common enemy (unemployment) that can lead to a united front taken by the stakeholders. Second, although there are tensions between achieving consensus and keeping diverse views alive, this does not mean that the two positions are mutually exclusive. It is quite possible that all stakeholders could accept the outcome without necessarily agreeing on every point. It is important to establish a set of shared values; this means that stakeholders can respect the views of other stakeholders and consequently be able to ‘live with’ the final outcome. It is important to reach early agreements on important goals. Third, there must be top-down and down-top involvement. Fourth, groups or individuals that have been excluded ought to be given access and resources to follow the policy process from the inside (Finlay et al., 1998).

Research Strategies

This case study employs qualitative data gathering and analysis techniques (Yin, 1994; Stake, 1995; Simons, 1996). The research strategy has three main steps. First, the four government reports providing the background scenario of the policymaking process were analysed. The reports include the following: *Vocational Colleges: advanced post-secondary education* (SOU, 1995); *Evaluation of Advanced Vocational Education: report from a research team* (SOU, 1999b); *An Evaluation of Advanced Vocational Education Commissioned by the Committee on Advanced Vocational Education* (SOU, 1999a); and *A New System of Post-secondary Vocational Education and Training* (Ds, 2000).

Second, a complete list of stakeholders involved and their written remarks was gathered from the Ministry of Education and Science in order to get a first glance as to which interests in society had been represented. From the population with about 150 organised interest groups per government report, a sample for further in-depth textual analysis was made. Finding the significant stakeholders, but also
keeping the data material on a manageable level, a strategic sampling technique steered by the delimiting definitions of external stakeholders as described by Mitroff (1983) was used. Hence only organisations with certain purpose and motivation, physical and positional resources, special knowledge and views on VET were considered. A further delimiting definition was that stakeholders selected had been involved in all four government reports, following the policy process from start to finish.

As a result, nine different stakeholders clustered within three different categories were selected. The first category was the three main employer and employee confederations in Sweden, whose organisational and financial strength gives them substantial influence in virtually every aspect of the labour market (Lundahl, 1997). The second category comprised one single large member organisation within each of the three central confederations selected. The third category of stakeholders included the three main national authorities in charge of monitoring and supervising all forms of education including vocational education and training and labour market training in Sweden. The sample of significant stakeholders is displayed in Table II.

Using the stakeholder approach described by Mitroff (1983) and Ax (1999) when reading the remarks on the four government reports, the textual analysis focused on the following topics: first, organisational structure (an integrated or an independent body parallel with universities); second, content and design of the reform (general or vocationally oriented, school or workplace-based forms of learning); third, financing model of the reform (publicly funded only or partially sponsored by industry and commerce).

As the third step, complementing the written remarks, four semi-structured interviews with key representatives of the selected stakeholders involved were performed. The purpose of the interviews was to add to the understanding of the reports, to go ‘behind the scene’ and the tidy language of the government reports to gain a sense of how the stakeholders actually thought about these issues in ‘commonsense’ terms, i.e. how they struggled with them and how they expressed them.

<table>
<thead>
<tr>
<th>Employer and employee confederations</th>
<th>Single trade unions and employer association</th>
<th>National authorities for education and training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish Trade Union Confederation (LO)</td>
<td>Swedish Metal Workers’ Trade union (Metall)</td>
<td>National Agency for Education (Skolverket)</td>
</tr>
<tr>
<td>Swedish Employers’ Confederation (SAF)</td>
<td>Swedish Teachers’ Union (Lärarförbundet)</td>
<td>National Agency for Higher Education (Högskoleverket)</td>
</tr>
<tr>
<td>Swedish Confederation of Professional Employees (TCO)</td>
<td>Association of Swedish Engineering Industries (VI)</td>
<td>National Labour Market Board (AMS)</td>
</tr>
</tbody>
</table>
in everyday language. Overall, the interviews provided a better insight into how these complex issues were discussed, argued over, explained, justified, defended and elaborated as they went about their task of addressing requirements and policy recommendations.

A New VET Reform is Proposed

In April 1994, the first step towards the reform was taken when the centre-right government commissioned a study that would investigate the possibilities for a new reform in higher vocational education (Directive, 1994; 36). In May 1995 the government-appointed investigator Mr Rolf Nordanskog, a former manager of education and training at Volvo, presented the report (SOU, 1995). In the report, Mr Nordanskog concluded that technological, economical and organisational developments in work life required drastic improvement in VET regarding flexibility and adaptability. The report especially focused on the lack of tertiary vocational education emphasising workplace-based learning, which resulted in a short supply of specialists in several sectors of the Swedish labour market (SOU, 1995).

In the proposals for improvement, the report focused on the need to establish a wide range of higher vocational education programmes based on the principle of flexibility; where there is a demand for specialists within any specific sector of working life there should be a VET programme designed to fill that demand. In terms of organisational structure, the report stressed the need for moving away from a centralised educational planning system towards a decentralised system where representatives from regional and local enterprises are encouraged to take an active part in development and implementation, hence moulding VET programmes to their specific needs. In addition, the report stressed the importance of strong elements of workplace-based learning, proposing that one-third of the entire course time address advanced application of theoretical knowledge at a workplace. The participating companies would guarantee that work and qualified mentoring would be provided for the students (SOU, 1995).

The most radical proposal in the report was, however, the establishing of new and independent vocational academies alongside the universities. In order to finance the academies, all tertiary vocationally oriented education would be transferred to these new academies. Consequently, financial resources from the labour market training would be transferred from the National Labour Market Board to the new academies. Additionally, private sponsoring in the form of commissioned education by working life would also be approved (SOU, 1995).

The response from the stakeholders was mixed, to say the least. Among stakeholders representing employees, the opinions were in favour of establishing a new tertiary vocational education per se. Their general impression was that Sweden has for a long time lacked higher vocational education, resulting in a shortage of specialists. In terms of organisational affiliation and responsibility, the employee bodies were very critical of the establishment of new vocational academies separated from the universities. The argument from both the LO confederation and the Metal Workers’ Trade Union was that the vocational academies would not be able to
compete with the universities in terms of educational quality as well as in status. The result, the LO confederation argued, would be that the academies would be ranked as the 'second best' alternative, thus resulting in even more difficulties in recruiting talented and well-motivated students (Remark No. 117, 1995). This critical opinion coincided with the arguments made by the Teachers’ Union as well (Remark No. 91, 1995). The Metal Workers’ Trade Union was especially critical, concluding that the evaluator Mr Nordanskog presented ‘conservative and obsolete thinking’ and that he favoured big businesses’ needs over labour’s needs. The trade union also blamed the report and the government for being politically class-conscious in a negative sense because it aimed to provide companies with cheap labour and because it aimed to place students with blue-collar backgrounds in vocational academies and students with white-collar backgrounds in the universities (Remark No. 12S, 1995).

The TCO confederation was also critical of the proposed method of financing the new reform. They warned that the consequences of letting the employers take more control of design and content of VET, deciding which programmes to financially support or not, might lead to conservative and rigid reforms that would be difficult to change in the future (Remark No. 118, 1995).

The stakeholders representing employers, on the other hand, were more optimistic about the report. In particular, the SAF confederation pointed to the need for allowing local and regional companies to influence the content and the curriculum, thus establishing a demand-led system instead of supply-led one (Remark No. 116, 1995). Critical voices were also raised. Paradoxically, although the report had proposed strong elements of workplace-based learning, the Association of Swedish Engineering Industries (VI) was sceptical about the length of workplace-based learning, arguing that it might be difficult to integrate students into real-world production at all. The somewhat loosely formulated argument was that the production systems of today are so optimised and cost-efficient that any errors made by unskilled students would be economically devastating. The employer association also questioned whether companies (especially for small and medium-sized ones) really would have enough time or economical strength to provide mentors for the students (Remark No. 107, 1995).

Finally, among the national authorities in charge of education and training the report was met with strong disagreements, especially regarding the proposed organisational structure. Being more optimistic, the National Agency for Higher Education was in favour of the proposal. It welcomed the idea of vocational academies, arguing that a transfer of all tertiary vocationally oriented education into the academies could be a good idea because the universities themselves had not been very successful in emphasising the practicality of higher education (Remark No. 7, 1995). Conversely, the National Labour Market Board and the National Agency for Education were very critical. While the latter claimed that the proposal would lead to the destruction of an already functioning labour market training to fight unemployment (Remark No. 8, 1995), the former stated that the potential for achieving workplace learning among the companies was strongly exaggerated by the author and simply not believable (Remark No. 11, 1995).
Considering the requirements and recommendations put forward by the stakeholders, the newly elected Social Democratic government proposed in February 1996 the launch of a pilot project to test a new form of vocational education (Government Bill 1995/96: 145). In the government proposal the suggested reform was tertiary: completed upper-secondary education or equivalent knowledge was required for eligibility. Most surprisingly, the government proposal, with respect to organisational structure, was a clear concession to the employee stakeholders—the LO confederation and the Metal Workers’ Trade Union. In the proposal, the government rejected both the original idea of new vocational academies as well as the idea of merging the reform with the universities. Instead, the organisational affiliation and subsequently the responsibility of designing individual programmes within the reform were to be constituted of a ‘patchwork’ of various course providers ranging from universities, upper-secondary schools, municipal adult education and private training companies. With respect to content and curricula, the government proposed an equal mix taken from labour market training, upper-secondary, supplementary and university courses.

To avoid dissatisfaction with the stakeholders of employers (and indeed a deadlock between the ministers of education and science of the new government itself), the proposal also required the individual programmes to be developed in close cooperation with regional and local companies. Moreover, VET programmes were to be either divided into traditional semesters or conducted continuously with no division into semesters, thereby enabling them to follow the production cycles of industry. By this the proposal addressed the real needs of the labour market, the government argued (Government Bill 1995/96:145). It was proposed that programmes would be open both to individuals directly from upper-secondary school and to people who were already gainfully employed but wished to develop their skills in a defined area. The student was to be entitled to public financial support subject to the current regulations for higher education.

The government proposal of AVE strongly emphasised workplace-based learning. With one-third of the programme time dedicated to workplace-based learning outside school, the aim was for programmes to combine practical orientation with in-depth theoretical knowledge. The interplay between theory and the workplace was regarded as important both for course quality and to meet the needs of the employment market and the students. Trying to take the edge off the dissatisfaction tone within the trade unions, the government proposed that industry would bear the costs incurred for the workplace-based training (Government Bill 1995/96:145).

The Launch of the Pilot Project with AVE

The AVE pilot project was first launched in August 1996 with a modest volume of 1700 education places per annum. The pilot project was at first due to last until the end of 1999. In operative charge of monitoring and evaluating the reform, a parliamentary committee on advanced vocational education including representatives of various stakeholders was formed. The committee was also to be in charge of accepting or rejecting applications from education providers to start an AVE
programme. The legal basis for the work of the committee, which was assembled in May 1996, was Act 1996:339 and Ordinance 1996:372. Beside the committee, a research team at Luleå University of Technology was commissioned by the Government to perform a parallel and independent evaluation study of the pilot project.

In September and October 1999 the research team, of which this author was a member, and the parliamentary committee presented their findings as two separate government reports (SOU, 1999a, b). The evaluation study by the research team was extensive, covering approximately 12,000 students in 208 different programmes around the country (Johansson et al., 2000; Lindell & Svensson, 2002).

In conclusion, the two reports both suggested that the AVE pilot project had been successful. The findings indicated that students in general had been attracted to the programmes provided; that educational organisers had undertaken their duties in a serious way; and that participating representatives of working-life companies had supported the scheme by providing sufficient places for workplace-based learning and mentors. In terms of 'output', the research team could show that approximately 75% of the first 1124 examined students had obtained proper jobs highly related to their programmes six months after graduation (SOU, 1999b). The total expenditure for AVE was estimated at approximately 700 million SEK (77.8 million Euro) per annum (SOU, 1999b). In their final conclusions, the parliamentary committee suggested that AVE ought to be transferred into a permanent form with the other streams of tertiary vocational education (SOU, 1999a).

From Conflict to Consensus

The two government reports were distributed to the stakeholders for their consideration in guiding the government on whether AVE should be permanent and also how it should be designed. In the recommendation reported back, there was no immediate sign of the earlier conflicts between the different stakeholders. Indeed, the somewhat fierce ideological disagreements that had characterised the initial proposal from 1995 had radically changed during the years from 1996 to 1999. With some minor differences, all external stakeholders in their responses were in favour of what had been achieved with AVE.

Among the stakeholders representing the employees, the LO confederation was very positive, and in fact almost delighted about the outcome. Gone was the requirement of merging AVE with higher education and the explicit warnings that anything outside higher education would lead to regressive dual systems thinking, and thus the creation of a 'second best school' attitude. Quite the opposite: the LO was now in favour of establishing a new post-secondary vocational authority that was not far from the original proposal they had strongly rejected (Remark No. 102. 1999). The Metal Workers’ Trade Union was also positive, but more moderate in their judgement. To start with, the trade union was positive to the way AVE had managed to combine theoretical knowledge within school with workplace-based learning—something they had suspected would fail. However, the trade union remained quite critical that the employees in many cases did not have any represen-
tatives in the local reference groups, although the law required it (Remark No. 16S, 1999). Because of this, the Metal Workers’ Trade Union warned that there was still a risk that workplace-based learning might end up as publicly funded in-company training, an argument also forwarded by the National Labour Market Board (Remark No. 49, 1999). Moreover, the trade union called upon a broadening of the programmes available within AVE to include professional degrees such as nurses and teachers, a standpoint that had been discussed during the time of the pilot project and fiercely rejected by the Teachers’ Union (Remark No. 103, 1999). Interestingly, although the trade union was the most critical stakeholder of all in this case, the union was still in favour of a new and separated organisation in charge of tertiary vocational education. The trade union also, rather uncritically, accepted the fact that AVE is principally demand-led in its design and acknowledged that individuals have responsibility for their own decisions and initiatives—a fairly neo-liberal statement coming from a traditional left-wing organisation.

The stakeholders representing employers were, not surprisingly, also very positive about what had been achieved during the pilot project. The SAF confederation and The Association of Swedish Engineering Industries (VI) both emphasised that AVE, as principally demand-led, had been able to fit the demand of requested competences throughout the different sectors of the labour market. In particular, VI emphasised that, in the case of Sweden, a rather unusual but highly important exchange of knowledge and experience between companies and schools had occurred when developing curriculum and designing workplace-based learning (Remark No. 18S, 1999). Organisationally, in order to keep the high level of flexibility, the SAF argued for a continued and indeed widened independence, suggesting the establishment of a new ‘virtual academy’. This academy, without any traditional campus or national authority in control, would be in charge of the fund raising and organisation of future AVE programmes (Remark No. 107, 1999). Furthermore, both the SAF and VI argued strongly that regional and local industry must continue to be highly influential in deciding which programmes to be either launched or shut down.

Finally, the stakeholders representing the national school and training authorities were also both in favour of continuing the pilot project. Although the Agency for Education was less prone to separating AVE into an independent organisation, it promoted the incorporation of AVE into a new system of tertiary vocational education and training (Remark No. 46, 1999). The Agency for Higher Education stated that the characteristics of the reform had to be protected, arguing that any kind of integration thoughts would defeat the initial purposes of AVE. The Agency of Higher Education also preferred to wait for the report of the expert group investigating the future design of CVT (Remark No. 43, 1999).

Towards a Permanent Part of Continuing Vocational Training

In October 1999, about one month after the research team and the committee on advanced vocational educational had presented their findings, the Social Democratic Minister of Education, Mr Östros commissioned a group of experts in educational
planning to present suggestions of how a future, more coherent system of tertiary VET (CVT) would be designed (Government policy plan 1998/99:121). In the commission, the expert group was not merely instructed to suggest if and how AVE could fit into the future concept, but instructed to study and evaluate whether the organisational structure of AVE could be broadened and function as a platform for other tertiary VET programmes including certain forms of labour market training (Government policy plan 1998/99:121). The expert group comprised, to a large extent, the same individuals representing different stakeholders that had been involved earlier in the policymaking process with AVE.

In May 2000 the expert group presented their results in a ministry report (Ds, 2000). In the report, the experts suggested that the future system of CVT ought to be organised independently alongside higher education and in such a way that industry and commerce could have great influence, thereby enabling the system to stay more flexible and demand-led. Furthermore, the group suggested that the future organisation of CVT should include 26,600 education places per annum at a total cost of 1.976 million SEK (219.5 million Euro) (Ds, 2000). The suggested future system and its components are displayed in Table III. In this proposed new organisation, AVE would play a dominant part, constituting nearly half of the annual student body with 12,000 education places. In charge of this organisation, the group of experts recommended the establishment of a new national authority responsible for financing, monitoring and evaluating the quality of the programmes (Ds, 2000).

Responding to the ministry report, the general impression among the stakeholders was that their requirements, with some adjustments, had been acknowledged. For example, the SAF confederation applauded the suggestion of close bonds between education providers and working life and the establishment of a new accountable independent authority (Remark No. 113, 2000). Similarly, the Association of Swedish Engineering Industries (VI) was also in favour of emphasising the importance that in order to obtain the best result, companies on the local level should be

<table>
<thead>
<tr>
<th>Form of education</th>
<th>Education places per annum</th>
<th>Cost per education place</th>
<th>Million SEK</th>
<th>Million Euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced vocational education</td>
<td>12,000</td>
<td>60,000</td>
<td>720</td>
<td>79.1</td>
</tr>
<tr>
<td>Higher vocational programmes for technicians</td>
<td>1000</td>
<td>66,000</td>
<td>66</td>
<td>7.2</td>
</tr>
<tr>
<td>Upper secondary courses*</td>
<td>8520</td>
<td>30,000</td>
<td>256</td>
<td>28.1</td>
</tr>
<tr>
<td>Vocational oriented education*</td>
<td>2400</td>
<td>53,000</td>
<td>127</td>
<td>14</td>
</tr>
<tr>
<td>Liberal adult education</td>
<td>2700</td>
<td>40,000</td>
<td>108</td>
<td>12</td>
</tr>
<tr>
<td>Financial support</td>
<td>2700</td>
<td>30,000</td>
<td>799</td>
<td>87.8</td>
</tr>
<tr>
<td>Sum</td>
<td>26,620</td>
<td>279,000</td>
<td>1976</td>
<td>217.1</td>
</tr>
</tbody>
</table>

Source: Ds, 2000.

*Provided within municipal adult education.
given the freedom to choose which education providers to cooperate with (Remark No. 128, 2000).

Visualising the overall collective consent, the stakeholders representing employees were also satisfied with the results presented by the expert group. The LO confederation was again very positive, emphasising the need to give tertiary vocational education a clear identity of its own within the national education system, something the confederation argued had been lost with the integration philosophy of the 1960s. Moreover, the LO confederation was also in favour of establishing a new authority but with a national jurisdiction, thus preventing regional biases in terms of course programmes provided and quality issues (Remark No. 109, 2000). Being less positive, the Metal Workers’ Trade Union kept an ideological sharpness. The trade union repeated its requirement that workers’ representation within the local AVE programmes be secured, preventing employers from taking control, arguing for continued publicly financed incentives (Remark No. 142, 2000).

In their response, the TCO confederation stressed the importance of not creating the future CVT system so rigidly that non-traditional course providers are excluded from developing programmes (Remark No. 118, 2000). The Teachers’ Union was quite sceptical about integrating different forms of tertiary VET into one single congruent system. The union argued that the resources would be better spent on developing the universities, broadening their scope of education programmes. Furthermore, the Teachers’ Union, which had previously kept a low profile, also disagreed with the proposal of establishing a new authority, arguing that its role and function would be redundant as their tasks could be done by the two already existing national authorities for education and higher education (Remark No. 110, 2000).

Finally, among the national authorities, the response was not entirely appreciative either. Being most positive towards the ministry report, the National Agency for Higher Education supported the need for developing tertiary VET and the establishment of a new independent authority to be in charge. By doing this, the Agency argued, VET could be developed towards certain distinctions and qualities that general and higher education simply cannot provide. The Agency was also in favour of stakeholders of working life being given considerable influence; however, they were rather vague about just how much influence is optimum, contesting the need to balance labour market interests against an individual’s personal and professional development (Remark No. 50, 2000). In contrasting, the National Agency for Education was, in line with the Teachers’ Union, rather critical of establishing yet another authority, proposing that the future congruent CVT system ought to be organisationally affiliated with the universities (Remark No. 53, 2000). The National Labour Market Board supported the idea of a new authority, but required that educational planning on a national level continuously be the responsibility of the state under which the proposed new authority is subordinated, hence delimiting employers’ wishes to control which programmes to start up and to shut down. The Board also contested that the curriculum should not just follow the short-lived trends in the labour market, but must rely on long-term forecasts (Remark No. 58, 2000).

Based on the ministry report, the government proposed in January 2001 that AVE
from January 2002 would be a regular part of the existing tertiary VET system (CVT) and that the number of education places provided would be expanded to 12,500 per annum from the same year (Government Bill, 2000/01:63). On the recommendation to broaden the organisational structure of AVE in order to give place to other forms of tertiary VET programmes, the government clearly supported the proposal, arguing that AVE as a future platform would provide better and more effective bridges between school and working life. At the same time, the government emphasised not rushing into this reorganisation without first solving the complex issues of curricula, quality of education and reliable forms of cooperation between educationalists and employers, safeguarding that students are provided workplace-based learning and mentoring (Government Bill, 2000/01:63).

Conclusions

This study has outlined the central-level educational policymaking process behind the reforms in AVE. The study has clearly shown that policymaking of VET is not a simple, linear process, but rather as Mitroff (1983) and Ax (1999) suggest, a complex, messy situation where different ideological beliefs, motives and commitments clash against each other.

In answer to the first research question as to who the main stakeholders of the reform with AVE are, the previous research (Lundahl, 1997) together with the findings clearly suggest that the LO, SAF and TCO confederations have played a particular role. Although the constitution gives the national authorities of education and training the right to act and criticise independently from the government, their requirements lay more on a formalised, objective basis not to be compared with the ideological beliefs, motives and commitments which are the foundation of the confederations and their affiliates. In addition, the organised interests of employers and employees, through their financial and organisational strength together with their political connections, have an exceptional position in Swedish educational policymaking (Heclo & Madsen, 1987).

On the second research question concerning which requirements the main stakeholders put forward on the AVE reform and to what extent they managed to influence the design in their favour, the findings suggest that there was a clear shift of rhetoric actions before and after the three years (1996–99) of the pilot project. As the policy remarks indicate, the actions that were based on the government report presented in 1995 (SOU, 1995) were characterised by strong ideological disagreements. The conflicting debate circulated mainly between the employer and employee confederations and their affiliates. The LO confederation and the Metal Workers' Trade Union during this time held a traditional socialist standpoint, arguing for the organisational and economical structure to be designed in a centralised and integrated style, keeping the publicly funded and controlled VET system intact. In particular, the issue of private sponsoring as a means of financing the reform with AVE was indeed a controversy that also triggered the TCO confederation to warn of the risks of rigidity. Also, the National Labour Market Board was critical but rather for the reason that the proposal of vocational academies with
private training companies involved a threat to their hegemonic position as provider of labour market training. Contrastingly, the SAF confederation and its affiliated employer association (VI) strongly supported the report, contextualising their long-time requirements of opening up the schools for market thinking which, in their opinion, would force educationalists to replace obsolete knowledge that has little or no connection to the realities within working life.

However, in the aftermath of the pilot project, which was extensively evaluated (SOU 1999a, b), a clear-cut ideological difference between the requirements is harder to find. As the findings indicate, with the exception of the Metal Workers’ Trade Union and the National Agency for Education, the attitudes had radically changed towards something more of a neo-liberal point where trendy concepts like individuality, market thinking, choice and globalisation were used. Thus, looking at how AVE was finally designed, the findings clearly suggest that the employee stakeholders did manage to establish their organisational and economical requirements, while making the largest ideological concessions from an original point of view.

For the third research question—what the significant factors in the policymaking process enabling the stakeholders to reach a state of consensus-like situation were—the findings suggest that factors are found at two different levels: organisational and societal. Concerning factors of organisational level, linked to theoretical works of (Mitroff (1983), Ax (1999), Finlay et al. (1998) and Heclo and Madsen (1987)), one can see that with the government decision of launching the pilot project, the main stakeholders were in fact put into ‘quarantine’ for three years. The metaphor implies that although stakeholders initially had strong differences of opinion, they were given a common responsibility, which together with the work on a daily basis of getting the project running, finally resulted in a common view, a strategy very similar to the concept of ‘building consensus’ as described by Finlay et al. (1998). Further, it is also highly important to emphasise the cultural arrangements and traditions that have developed around the policymaking model of 'structured consultation' (Heclo & Madsen, 1987). As the interviews with key representatives also indicate, this means that even though the different stakeholders are opponents in appearance, the everyday work in parliamentary commissions and joint working groups is done by a small group of professional elites whose agenda is not always optimised for their members only, but for the interest of the nation. Also, being a very specialised group in society, the professionals know and trust each other very well, and hence develop a refined strategy where policy bargaining is common (Rothstein, 1992).

In addition to organisationally oriented factors, significant events occurred in the rest of the Swedish society that indirectly affected the policymaking process. One of these factors was the change in political power. While a centre-right government commissioned the first study of vocational colleges—appointing a former manager of Volvo as investigator—the outcome of that report was later approved by a Social Democratic regime. With the strong historical bonds between the LO confederation and the Social Democratic party, it is plausible that the strong criticism of the first report was part of a larger political mobilisation where, in this context, the rather small question of tertiary VET was included. Another significant societal factor
during this period of time was the referendum and decision by Sweden to enter the European Union in 1994. With the decision to participate and with the following year of 1996 proclaimed as 'the year of lifelong learning', formal exchange of educational ideas and harmonisation might also have influenced domestic education policy. Finally, the change in rhetoric towards a consensus approach supporting neo-liberal ideology is likely to be explained by the gradual transformation of the Swedish society towards a service-based economy that took place during the 1990s. The absolute 'shock waves' in terms of deregulations within the economy and international trade, together with the massive privatisations of what earlier had been part of the public welfare state, i.e. what Finlay et al. (1998) so eloquently characterise as the 'introduction of market discourse', probably created the grounds for this gradual change of the collective mind, affecting even left-wing purists like the Metal Workers' Trade Union. In this sense, the initial proposal of vocational academies was before its time, which might explain the fierce resistance from the start.

References


Policymaking and the Role of Stakeholders


Appendix

The Association of Swedish Engineering Industries

The Association of Swedish Engineering Industries (Verkstadsindustriföreningen—VI), has approximately 3000 member companies with 300,000 employees.

National Agency for Education

The National Agency for Education (Skolverket) provides ongoing information on the current state of affairs in Swedish childcare and the school system to the government and Parliament.

National Agency for Higher Education

The National Agency for Higher Education (Högskoleverket) is responsible for matters relating to institutions of higher education. The National Agency for Higher Education monitors and analyses the development of higher education.

National Labour Market Board

The National Labour Market Board (Arbetsmarknadsstyrelsen—AMS) is the central authority whose task is to provide employment to the unemployed and manpower to employers, taking steps
to counteract manpower 'bottlenecks' in short-handed occupations and deploying resources on behalf of those who have difficulty in obtaining work.

The Swedish Confederation of Professional Employees
The Swedish Confederation of Professional Employees (Tjänstemännens centralorganisation—TCO) is an association of 19 trade unions representing approximately 1,300,000 Swedish white-collar workers.

The Swedish Employers' Confederation
The Swedish Employers' Confederation (Svenska Arbetsgivareföreningen—SAF), founded in 1902, comprises 47 employer associations, representing about 48,000 small, medium-sized and multinational member companies.

The Swedish Trade Union Confederation
The Swedish Trade Union Confederation (Landsorganisationen—LO) founded in 1898 comprises 18 trade unions (affiliates), representing about 2,066,500 members of which about 954,000 are women.

The Swedish Metal Workers' Trade Union
The Swedish Metal Workers' Trade Union (Metallindustriarbetareförbundet—Metall) founded in 1888 is one of the largest single trade unions within the LO confederation with about 420,000 members.

The Teachers' Union
The Teachers' Union (Lärarförbundet) is a member of the TCO confederation with approximately 200,000 members.
Qualified Vocational Education in Sweden - a New Form of Post-secondary Education

Klaus Breuer/Klaus Beck (eds.)

Are European Vocational Systems up to the Job?
Evaluation in European Vocational Systems

Offprint
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Qualified Vocational Education in Sweden - a New Form of Post-secondary Education

A pilot project involving qualified vocational education (QVE) has been carried out in Sweden. The purpose of the QVE pilot project was to compile experiences relating to new courses, new educational forms and new course providers. Concurrently with this project, there was an opportunity to investigate the actual extent of interest in this type of vocational education on the part of the employment market and the students involved. From those experiences the Parliament will decide the future development of the QVE in the spring of 2000.

This paper is based on an evaluation of the QVE pilot project. It was carried out by a group consisting of the Professors Torsten Björkman, Jan Johansson and Bengt Kildsfjö, assistant professor Antony Lindgren and an operational group of five doctoral candidates, Rickard Garvare, Maria Fredriksson, Marita Olsson, Mats Lindell and Magnus Svensson.5

1 The Swedish school system

The Swedish state school system comprises compulsory school and various types of voluntary schooling. Voluntary schools comprise upper secondary school and municipal adult education.6

1.1 Upper secondary school

Almost all pupils attending compulsory basic school continue directly to upper secondary school. Most complete their upper secondary schooling within three years.

Municipalities in Sweden are required by law to offer upper secondary schooling to all students who have completed their compulsory basic schooling. Upper secondary schools in Sweden provide basic skills both for

1 School of Industrial Relation and Organisational Behaviour, University of New South Wales, Australia and Dept. of Human Work Sciences, Luleå University of Technology, Sweden.
2 Dept. of Leadership, National Defence College, Stockholm, and Dept. of Human Work Sciences, Luleå University of Technology, Sweden.
3 Dept. of Human Work Sciences, Luleå University of Technology, Sweden.
4 Dept. of Human Work Sciences, Luleå University of Technology, Sweden.
6 For a more complete picture of the Swedish school system see http://www.skolverket.se.
working life and life in the community. There are 16 national programs, all of which are three years in length. Students who plan on attending upper secondary school opt for one of the 16 programs. In principle, students have the right to be admitted to the option selected.

All upper secondary programs contain eight core subjects; English, art, physical and health education, mathematics, natural science, civics, Swedish and religious education. Fourteen of the programs include vocational subjects (the child recreation program, the construction program, the electrical engineering program, the energy program, the arts program, the vehicle engineering program, the business and administration program, the handicraft program, the hotel, restaurant and catering program, the industrial program, the food program, the media program, the natural resource use program and the health care program) and must include at least fifteen weeks at a workplace outside the school. The other two programs, the natural science and the social science programs, focus more on university preparatory courses. By combining subjects from various programs, a municipality can create specially designed programs. A specially designed program can also be tailored for individual students to cater to particular learning needs.

Subjects in the upper secondary school system are divided into sub-courses. There is a syllabus for each sub-course that defines the goals that the tuition should fulfil. In addition, each sub-course has a set of criteria for various grades which define the level of knowledge students must attain to be awarded the grades Pass or Pass with credit. There are national sub-courses with centrally defined syllabuses as well as local sub-courses where syllabuses and grade criteria are determined within the municipality.

1.2 Adult education

Adult education in Sweden is extensive and based on a long tradition. It is provided in many different forms, ranging from national or municipal adult education to labour market training, staff training and competence development at work.

The state school system for adults includes municipal adult education (komvux), adult education for those with learning difficulties (särvux), Swedish language teaching for immigrants (sfi) and the National Schools for Adults (SSV).

The National Labour Market Board uses labour market training as an instrument of labour market policy. The Swedish parliament allocates money to the National Labour Market Board (AMS), which in turn distributes funding to county labour boards and employment offices. These purchase various training packages from, e.g. komvux or commercial training companies. The primary focus of the training is to provide basic vocational education for the unemployed.
Many workplaces have extensive training programs for employees at all levels. In-house training of this kind may involve anything from practical vocational training to extensive theoretical studies. It may be carried out, for example, in association with universities and colleges, municipal commissioned training, AMU (labour market training) or with various commercial training companies.

1.3 Qualified vocational education

Into this schooling system, a new form of qualified vocational education (QVE) was introduced as a pilot project. QVE is a new form of post-secondary education in which one-third of instructional time was advanced application of theoretical knowledge at a workplace. The aim was that these courses should not be organised as a traditional traineeship period, but rather revolve around active workplace-based learning and problem solving within an overall educational context. Courses were also meant to be based on close co-operation between workplaces and various course providers (upper secondary school, municipal adult education, colleges and universities, commercial educators). There were no restrictions in terms of occupational categories in which QVE was to be provided. The courses were opened to those coming directly from upper secondary school and also to those already gainfully employed and wish to develop skills within a defined area.

Even in the formulation stages, this new concept for vocational education did not escape criticism. There were two main objections to the new model. First, there was a question as to whether industry would provide enough trainee jobs. Second, there was a debate over whether QVE should be organised as a new educational system or one within universities and colleges. The second discussion included a debate over whether QVE was actually at the post-secondary level and if so, if it should be integrated into the university system. Partly as a result of these debates, the QVE started as a pilot project to compile experiences relating to new courses, new educational forms and new course providers.

2 Self-evaluation as a learning organization

The basic element of our evaluation model was self-evaluation by course participants. The aim of this self-evaluation was twofold. Self-evaluation was seen as a rational way of getting part of the information needed for our assessment. At the same time also desired was that the self-evaluation process would encourage participants to reflect on their own work and thereby provide an instrument for quality improvements over time.

7 The conditions of the pilot project is set up in a Act (SFS 1996:339) and a Government Regulation (SFS 1996:372).
The method used for our self-evaluation was based on research developed in connection with ongoing discussion about quality as it relates to both products and services. Based on that research we have created an instrument of self-evaluation called Läroverket, similar to the Malcolm Baldrige National Quality Award in the USA, but implying more specialised spheres (criteria) and questions. Our instrument for self-evaluation consisted of qualitative elements that contained quantitative measures, a set of basic facts which can be assorted and computed according to frequencies (number of students, male/female, age, educational background, occupational experience, points required for admission, etc.).

The next step in our process of evaluation was to visit 24 of the courses to clarify and expand on their self-evaluations. At the same time response validity was evaluated. These visits were organised so as to make it possible for all parties to be heard.

The self-evaluation and our visits to the different courses described above were supplemented with a series of questionnaire studies directed to each student. The first one (9,804 students) was distributed at the beginning of the period of studies and was structured to obtain facts about student social and educational backgrounds. Some questions dealt with course choices and student expectations. The second questionnaire (4,586 students) was distributed during the latter part of the education programs and focused on the experience of the courses. The third questionnaire (1,293 students) was carried out six months after that group’s education programs were completed. Intended was to measure, at the ‘moment of truth’, whether the former students felt that their earlier expectations had been met. This questionnaire included questions about experiences with courses as well as their experiences with the employment market.

3 Content and structure of qualified vocational education

The Commission on Qualified Vocational Education established by the Government administered the pilot project. The Commission is made up of representatives from political parties, labour market organisations, the municipalities and higher education institutes. To assist it, the Commission had a central office with five employees.

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8 See Bo Bergman & Bengt Klefsjö, Quality from customer needs to customer satisfaction, Lund: Studentlitteratur 1994.
10 We received 7908 answers (80,7 %).
11 We received 3435 answers (74,9 %).
12 We received 1124 answers (86,9 %).
13 A presentation of the Commission and the pilot project can be found on http://www.ky.gov.se.
The Commission invited various actors to take part in the pilot project. More than 800 applicants expressed an interest and, of these, the Commission approved 208 programs during the first three years. The three largest course providers were municipalities i.e. upper secondary schools and adult education (59%), private institutes and training companies (19%) and universities and colleges (15%).

The education was post-secondary, in the sense that completed upper secondary education or equivalent knowledge is required for eligibility. Our results show that 48 percent of the students had completed the theoretical programs of upper secondary schools and 48 percent the practical programs (the remaining 4% represented special cases including students from abroad).

The length of the courses varied between 40 and 120 points (i.e., they comprised 40 to 120 weeks' full time study), with the most common being 80 points (76 percent). Courses could be conducted in terms, or continuously with no division into terms. Students completing courses of 80 points or more earned a QVE certificate or diploma.

Knowledge content was taken from upper secondary, supplementary and advanced courses, higher education, and working life. The teachers were employed on a permanent basis, or as casuals (to teach a particular issue or topic) or on fixed term contracts. The overall aim was that courses should combine a practical orientation with in-depth theoretical knowledge. The interplay between theory and workplace practice was seen as important both for course quality and to meet the needs of the employment market and the students. QVE-students were entitled to study support according to current regulations for higher education.

In addition to vocational knowledge, the subjects emphasized were mathematics and natural sciences, computer technology and its uses, economics and economic thinking, society and culture, language and communication. It was also important for the courses to develop student social and personal skills, i.e., their: ability to speak, read, write and use information; ability to solve problems and think critically and creatively; ability to negotiate and work in a team.

Workplace learning was an important part in QVE. Students spent one-third of the course period at workplaces; honing analytical ability, applying comprehensive and system approaches, and assuming responsibility. For this to work properly, advanced supervision was supposed to be available. That the workplace had to be organized to make learning feasible, was also an important requirement. Although the aim of education and training at the workplaces was to impart familiarity with an occupation or vocational area,

14 The invitation was followed by an instruction which set up the conditions of the pilot project. The instruction can be found on http://www.ky.gov.se.
it was not meant to be as narrow as conventional forms of in-house company training.

Given the importance of the workplace training part of QVE, active participation of employers in designing courses was a requirement. Working life representatives were also required to make up a majority in the management group for a course.

4 Results

As might be expected, an evaluation of such a large pilot project as QVE generated results in many dimensions. Here we are going to concentrate on three types of questions. First, what kind of courses did course providers offer? What was the content and nature of the courses and how did they relate to the demands of the market? What are the opinions of students? Secondly, how is workplace learning organised and what is the response from students and from industry and other providers of trainee jobs? Thirdly, has QVE managed to recruit new groups of students compared to universities and colleges?

4.1 Courses related to the demands of the market

The guidelines for the pilot project were relatively unrestricted. This meant that individual course providers were free to take initiative and the courses offered could be seen as reflecting both the Commission's and the course provider's image of the demands of the market. (One restriction imposed by the Government was to require the Commission to give priority to courses for technicians, information technology and the health care sector). With those restrictions in mind, table 1 outlines what kind of courses were offered, the number of courses and the number of students.

15 For a detailed presentation of our results see our full report.
Table 1: Number of courses and students divided into sectors of the labour market

<table>
<thead>
<tr>
<th>Sector of labour market</th>
<th>Courses</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Manufacturing industry</td>
<td>52</td>
<td>2306</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Information technology</td>
<td>45</td>
<td>2508</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Business and administration</td>
<td>24</td>
<td>1560</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Tourism including restaurants</td>
<td>20</td>
<td>1179</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Construction industry</td>
<td>13</td>
<td>607</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Others</td>
<td>13</td>
<td>437</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Transport sector</td>
<td>10</td>
<td>574</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Health care sector</td>
<td>9</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Agriculture, forestry and gardening</td>
<td>8</td>
<td>327</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Forestry industry</td>
<td>5</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>The environment sector</td>
<td>5</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Food industry</td>
<td>4</td>
<td>206</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>208</td>
<td>10483</td>
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<tr>
<td></td>
<td>100</td>
<td>100</td>
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</tbody>
</table>

The first thing apparent from Table 1 are the strong concentration of courses in four sectors of the labour market, namely manufacturing (22%), information technology (24%), business and administration (15%) and tourism including restaurants (11%). Together they attracted around 72% of the students. Eight other sectors share the remaining 28 percent of the students. These percentages do not match the occupational distribution pattern within the Swedish labor market as a whole.

Another remarkable observation is the degree of under-representation of some sectors. For example, the health care sector accounts for 15 percent of total employment but only secured three percent of the students from the QVE program despite a priority ranking by the Government. On the other hand, the tourism sector represents just three percent of the labour market but accounted for 11 percent of QVE students. Information technology accounted 24 percent of QVE students, although it’s difficult to estimate its employment share (a good estimation predicts no more then 5 percent). This is one area where government priorities seem to have had an impact (or perhaps demand matched the priorities). While this pattern of usage may
be seen as meeting future labour market demands it is unlikely that the changes in labour market demand will be so dramatic as to warrant the mismatch apparent here.

It is perhaps easier to understand these imbalances as a response to current labour scarcity in several industries (notably information technology and tourism) rather than an overall matching of student numbers with the labour market distribution pattern. From that point of view we must understand the allocation of students as temporary and under constant reconsideration. This can explain the interest for the tourism sector. Tourism can probably use one thousand more students over the next few years but it is by no means certain that this demand will continue in the long term. The information technology sector is also lacking labour but here we might cast some doubts about the quality of the output from QVE to meet this demand. Many of the courses are not at the post-secondary level and should rather be integrated into upper secondary school. We describe them as ‘driving licence education’ that in the long run should be integrated into all courses.

Further, reference to labour demand factors alone cannot explain the low number of students from the health care sector. Here we meet another mechanism related to professionalism. Access to the health care sector in Sweden is strongly regulated by professional rules and laws. For example you are prohibited to work as a doctor or a nurse without a professional qualification. To work as an assistant nurse or a hospital orderly you need an adequate education. In this well-regulated system it is important to define the professional borderline in a precise way. Our impression is that QVE did not succeed very well in this regard. By way of comparison in the manufacturing sector, where we can find no such professional boundaries, industry and course providers established close relationships.

4.2 The character of the courses

In analysing the courses, another dimension examined was their characteristic components, industry focus and labour market responsiveness. Are they focused on specific vocations or are they more generally oriented towards a particular sector of the labour market? Do the courses penetrate new sectors of the labour market or are they concentrated in the traditional sectors? Do the courses include elements of entrepreneurship and self-employment?

Our results show that about 80 percent of the courses could be described as focused on a specific vocation. The remainders were of a more general character, for example the courses in information technology we previously described as ‘driving licence education’. Courses in the construction sector and in business and administration were often more general than others. Construction courses have conventionally focused on the management tasks of foremen and supervisors and the QVE programs reflected this. Equally, courses in business usually have been of a general character. A great num-
ber of the courses were in fact aimed for promotion to some kind of foreman or supervisor. Those courses are often within mature sectors such as the construction and manufacturing industries. Of course, the boundaries are hard to define. We are dealing with a continuum where some courses are more general than others. We found the big group of courses for technicians in the manufacturing sector hard to characterise in terms of generality. On the one hand they are very general but on the other hand they have a well-defined profession in focus, namely engineers. We chose to describe them as focused on a vocation. It remains to be seen if the market will accept them as engineers. We found no courses that were so general that students risked not gaining entry to the labour market.

Another ambition of QVE was to give preference to new sub-sectors and new vocations. Our results showed that most of the courses were in established sectors and aimed at established vocations. We did find some innovative courses in the environmental sector, information technology and in business and administration. In one case there is a clear regulatory impetus to this. Sweden has recently enacted environmental legislation that requires companies and the public sector to address environmental questions in an appropriate way. At present, there is a lack of courses in this area. Information technology is more complex to analyze. In some sense the whole sector is new with new vocations and tasks, but degrees of novelty do differ. We can find traditional courses in signal processing or software engineering as well as new ones focused on new vocations in the multi-media sector, such as web director. In the sector of business and administration there are some new courses in selling special products and some courses focused on international trade. The interest for international trade is related to Sweden joining the European Community (EC).

Overall, many of the courses appear to be focused on areas experiencing labour shortages. The major demand is in private industry, notable examples including the lack of PC and other technicians in the information technology sector and foremen in the construction sector. We can identify another large group in business and administration. What is asked for is a modern secretary that can handle new computerised tools such as Word and Excel as well as different types of accounting systems. These types of competences are especially sought after by workforce providers like Manpower (themselves undergoing significant growth).

About 25 percent of the courses contain elements of entrepreneurship and self-employment. The small sectors, such as the food and wood industries, have shown a greater interest for those subjects than the bigger ones, and you can hardly find any in the big sectors of manufacturing and information technology. The courses in agriculture, forestry and gardening can be described as designed for successors, the heirs and heiresses taking over hereditary estates from their parents.

In summary our analysis of courses indicate that they have taken on forms other than those originally envisaged. Further, with the exception of
information technology, the sectors where the courses got the most enthusiastic response were not those envisaged in the initial policy debates or subsequent planning and implementation by the government. It was not predicted or planned that so many courses should be focused on promotion to foreman nor on entrepreneurship and self-employment. If this shift is good or bad remains to be seen.

4.3 Pedagogical design of the courses

The QVE-committee recommended that course providers try new forms of teaching to develop student’s social and personal skills. We have identified three main forms of pedagogical design in the courses that we have called; the modern form, the classical form and the comprehensive model.

The modern form is often described as problem based learning. In the view of providers this was the most frequent form of instruction used. Problem based learning allows the student to practise problem solving on cases often brought from the companies where the student performs workplace based learning. The students must take a greater responsibility for their own learning and the teacher’s role is to facilitate the learning process rather than to provide ‘facts’ that can be obtained from books.

The traditional form is based on classroom activities where teachers try to find a balance between traditional theoretical teaching, laboratory practicals and other forms of group activities, often in form of projects, both fictitious and real. Our results showed that, notwithstanding the views of course providers just alluded to, this traditional approach was the most frequent form of instruction actually used. What the course providers describe as problem based learning is often an ambition that is not fully realised in practice. In essence, the results strongly resemble the traditional form of classroom activities.

The comprehensive model is based on traditional individualised learning in some handicraft trades and was only used by a few craft courses. In this pedagogic model the student is under the supervision of a qualified craftsman and can learn different work methods by trial and error.

4.4 Workplace based learning

As previously mentioned, workplace learning is an important part of QVE. Since the guidelines for the pilot project were relatively free from restrictions it is interesting to see what came out of the workplace learning, how it was organised and how it has been received and assessed by students and industry. From our material we can identify four types of workplace learning: trainee, project, apprenticeship and adoption.

Most common workplace learning was organized as a traditional trainee period. Students were supposed to put their theoretical knowledge into prac-
tice. Usually the students started with single sub-operations and gradually advanced to work as a full time employee.

Another common way of organizing workplace learning was in form of a workplace-based project. For example, the students could develop a market plan or design web pages for a company. By this form the students developed their ability to plan and coordinate their own work, often in cooperation with other students and company staff.

A third form, used only in a few craft or trade courses, was the traditional apprenticeship. Under supervision of an experienced tutor the students practiced the trade and assimilated its traditions. What the students actually learn depends on the tutor and on what kind of production is available during that period.

Finally, a few courses that focused on entrepreneurship and self-employment used what we can describe as an adoption. The students were adopted by a group of companies and together students, teachers and company representatives planned different types of workplace learning related to the needs of the individual students.

The scheduling of workplace periods varied between different courses. Emphasising the close interaction between theoretical and practical knowledge, some courses placed their student at workplace two days a week. Others divided workplace learning into three or four full time periods of different lengths. Their argument was that a concentrated period was required to ‘catch’ the art of the work. A minority of courses concentrated workplace learning at the end or even at the beginning.

As previously mentioned, the QVE concept for vocational education was criticised for overestimation the interest of industry for this type of education. The main question was: Will industry provide enough workplaces meeting the needs of workplace-based learning? This criticism proved to be exaggerated, at least as far as the pilot project was concerned. Most courses had little difficulty obtaining the required number of workplaces. Nonetheless, it is unclear whether workplace access will become a problem as the program expands. We cannot tell how robust the system is. However, greater recognition and discussion of the QVE system is needed within industry if the system is to succeed in the future.

Overall, students were satisfied with the integration between school and workplace-based learning. Students told us that they gained a better understanding of theory after their workplace periods. They also found that schooling is necessary for working life and they acquired a more positive attitude towards the whole school system after their periods at workplaces. Many students have chosen this form of education because all QVE courses involved workplace-based learning (equivalent to a third of the total learning period). Responding to one question, 84 percent of students stated this integrated form of learning suited them best, and 89 percent expressed satisfaction with their latest workplace-based learning period. From our point of
view, workplace learning can be seen as an interesting alternative for young people less motivated by theoretical studies.

4.5 Students opinion of the courses

A more definitive judgement of the QVE courses can be made on the basis of what happens to students after their exams and what is their opinion of the courses in retrospect. We asked the first 1124 students who completed their QVE courses these questions six months after their exams.

Table 2: Students occupation six months after their examinas
(Number and percent)

<table>
<thead>
<tr>
<th>Employed</th>
<th>University or college</th>
<th>Self-employed</th>
<th>Unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>845</td>
<td>75</td>
<td>82</td>
<td>7</td>
</tr>
<tr>
<td>50</td>
<td>4</td>
<td>153</td>
<td>14</td>
</tr>
</tbody>
</table>

From Table 2 we can see that 75 percent of the students were employed six months after finishing their courses. In the current labour market climate, this must be seen as a good result. In addition, four percent had established their own companies. This gives us a total of 79 percent in employment. Responding to one question, 84 percent of the employed or self-employed stated they had work relevant to their QVE education. At the same time, it is still rather disappointing that, as Table 2 indicates, 14 percent of the students were unemployed six months after finishing their courses. We also noticed a low level of transfer of QVE students to universities and colleges (only seven percent). This was not unexpected since none of the courses was designed to facilitate such transfers.

Most of the employed students were in the private sector (83 percent). Over a third of those in the private sector (36 percent) were employed in small business (1-49 employed), 24 percent in medium sized business (50-499 employed) and 37 percent in large companies (more than 550 employed).

One indicator on the quality of the courses was student opinion. On the question ‘Are you satisfied with your QVE?’ 79 percent of the students answered ‘Yes’. 76 percent of the students felt that QVE was relevant to their present work. In relation to the length of the courses, 75 percent thought it was just right and 18 percent thought it was too short.

On the question ‘Have the courses contributed to a raise in your salary’ only 56 percent answered ‘Yes’. That’s rather low if we take into considera-

18 We received answers from 1124 students. Six of them declared themselves as both university students and unemployed.
tion that the students usually have to finance their studies by loans. Salary increases related to QVE were most frequent in the information technology sector (69 percent).

4.6 New groups of students?

An interesting question is what is the socio-economic background, gender and other characteristics of students in the new QVE courses and how this compares to those in universities and colleges. Of course, we recognise that universities and colleges are by history rather socially segregated.

Table 3: Social background among university students, QVE students and among the gainful employed population.

<table>
<thead>
<tr>
<th></th>
<th>Universities and college(^1) (%)</th>
<th>QVE students(^2) (%)</th>
<th>Gainful employed population(^3) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue collar</td>
<td>23</td>
<td>34</td>
<td>44</td>
</tr>
<tr>
<td>White collar</td>
<td>68</td>
<td>50</td>
<td>41</td>
</tr>
<tr>
<td>Self-employed(^2)</td>
<td>9</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

From Table 3 we can see that the social background of the QVE students more closely resembled the profile of the total gainfully employed population than the profile of students in universities and colleges. Even so, students from blue-collar backgrounds were still under-represented in QVE programs. A notable characteristic of the QVE student profile was the large proportion whose parents were self-employed (14 percent).

When it comes to attracting students from immigrant backgrounds the QVE program has succeeded fairly well (they accounted for 18 percent of QVE students compared with 19 percent among the total population\(^2\)\(^3\)). Further, on average QVE students tended to be a little older than the university students although most were still under 24 years of age (54 percent).

Our impression is that the QVE program has worked surprisingly well in terms of attracting new groups of students. We should emphasise the fact that QVE has opened up an alternative educational path for students from upper secondary schools practical programs. However, when it comes to

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\(^{19}\) Statistiska centralbyrån (Statistics Sweden). Folk och bostadsräkning (FOB) 1985 (Population and housing census 1985). Örebro: SCB.

\(^{20}\) Year 1998-99.

\(^{21}\) Gainful employed population 16 years and more according to Statistics Sweden: Statistiska centralbyrån. Folk och bostadsräkning (FOB) 1990 (Population and housing census 1990). Örebro: SCB.

\(^{22}\) Including farmers.

breaking the traditional gender bound pattern of educational and occupational choice the QVE program has been rather less successful.

Table 4: Proportions of male and female among university students and QVE students.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Universities and college(^{24}) (%)</th>
<th>QVE students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>58</td>
<td>53</td>
</tr>
<tr>
<td>Male</td>
<td>42</td>
<td>47</td>
</tr>
</tbody>
</table>

Table 4 indicates that the QVE programs have a more equal gender distribution compared with universities and colleges. However, under the surface we still detect traditional patterns. When divided by labour market sector (industry), the traditional selections of educational and occupational choice became obvious.

Table 5: Proportions of male and female in QVE distributed by Sectors of labour market.

<table>
<thead>
<tr>
<th>Sector of labour market</th>
<th>Female (%)</th>
<th>Male (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction industry</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>Business and administration</td>
<td>58</td>
<td>42</td>
</tr>
<tr>
<td>Information technology</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>Agriculture, forestry and gardening</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Food industry</td>
<td>53</td>
<td>47</td>
</tr>
<tr>
<td>The environment sector</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Transport sector</td>
<td>37</td>
<td>63</td>
</tr>
<tr>
<td>Manufacturing industry</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Forestry industry</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Tourism including restaurants</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>Health care sector</td>
<td>93</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>(3727)</td>
<td>(4176)</td>
</tr>
</tbody>
</table>

The construction and forestry industries as well as the agricultural sector remain strongly male dominated while the opposite exists in health care, tourism and the environmental sectors. The most gender-equal sectors were information technology and food industry.

In other words, the QVE program has not managed to break the gender bound pattern in any significant way. Actions taken to try and redress this

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\(^{24}\) Statistiska centralbyråns (Statistics Sweden). Statistiska meddelanden U 20 SM 9901 (Statistical notifications U 20 SM 9901). Örebro: SCB.
imbalance were rather conventional (such as placing images of a female student on front page of the course leaflet for male dominated courses or male students being told about traditional female courses) and had little obvious effect. As a result, the division into male or female occupational choices in QVE programs still follows the traditional patterns of gender segmentation in the labour market.

5 QVE in the future

In such a large pilot project like QVE it is hard to say what is right or wrong as well as to give recommendations for the final structure for the new educational system. There are many political implications that can follow each decision. Our contribution is to highlight major alternatives and spot their pros and cons. We are going to discuss four different future forms of QVE that we have called; integration, separation, prolongation and liquidation.

Before that discussion we want to state some values that are important to keep in mind regardless of which way is chosen. First, it is important to note that the QVE program should focus on vocational training and not on more generic education for work. Otherwise it will become difficult to identify the boundary between QVE and the general education of universities and colleges. Second, workplace-based learning should be an essential part of QVE, especially given that this is a critical element in attracting students to the courses. Third, the positive commitment from employers and entrepreneurs must be encouraged in order to guarantee a future supply of workplaces needed for workplace-based learning. Fourth, the flexibility of QVE in terms of responding to changing labour market demands must be guaranteed. In addition to the above QVE has a problem in the form of low visibility. What is needed is a strong identity that can attract both students and industry in an up-scaled form.

5.1 Integration - QVE as a part of universities and colleges

One alternative already discussed and rejected in the preparatory report was to integrate QVE into the regular university and college system. The reason for having QVE separate was a belief that the culture and traditions of universities would discourage growth of new pedagogic identity. In contrast, others have argued that universities constituted the best responsible authority and could provide a guarantee of quality.

The pilot project included 19 courses provided by universities and colleges. Our results indicated that these courses were neither better nor worse than courses offered by other course providers. For example, while it might

be expected that universities would be more insistent on using well-educated and competent teachers; in practice they ‘bought in’ teachers (outsourced teaching) in a way that was essentially similar to other providers. This may not seem surprising given our impression that QVE courses were viewed as remote from the core activity of the universities. In a couple of cases, the courses were outsourced to commercial training companies.

Our opinion is that universities have potential to handle the four values stated above; focus on vocation, workplace based learning, the positive commitment from industry and flexibility towards labour market. Universities have a long tradition of workplace based learning and training in different professions. In particular, universities of technology have developed strong and positive relationships with industry. The university system also has a lot of experience in handling flexibility both in terms of students and economy.

The big problem with universities as course providers revealed by our own research is their lack of interest in QVE. We have few findings to substantiate that universities would take QVE to their hearts in the future and we think this is critical since such a commitment represents a core requirement for the program’s success.

5.2 Separation - QVE as a new organizational body

By separation we mean creating new local bodies for QVE with their own organisation for planning, prioritizing, evaluation and administration. When the proposal for QVE was discussed in parliament, concerns were voiced that these bodies could become second class universities. We feel there is some substance to this argument. If QVE is not a success with future employers and students we have indeed created a new second class educational system. On the other hand, a success would certainly yield benefits in terms of providing a vocationally focused educational path.

In the long run a new organisational body will promote the identity and visibility needed for QVE. If QVE manage to create their own identity the discussion of comparability with universities and colleges is no longer relevant and QVE is free to create its own traditions and roles. For example, you can ask if it is absolutely necessary that all students have an exam from post-secondary school.

If QVE can be geographically identified with a building or a campus area separated from other school forms, we think that will help in fostering a unique QVE-identity. To create necessary conditions for that to happen you need a concentration of resources. We recommend not less than five, preferably ten, courses at each organisational unit. Otherwise a QVE unit would not have the economy of scale to manage cost while at the same time having sufficient flexibility to respond to a changing labour market. The geographical location of the campus seemed to be of no interest. We have found nothing supporting the assumption that young people prefer big cities
as opposed to more rural locations. What is important is to find courses that attract young students.

5.3 Prolongation - QVE as an administrative web

Prolongation does in fact mean to accept the organisation of today. The Commission on Qualified Vocational Education would be transformed into a public authority and provided with extended resources for planning, prioritizing, evaluation and administration. The Commission would act as an administrative web and continue to purchase courses from different course providers. One advantage with prolongation is that the Commission has already proved its ability to handle QVE in an appropriate way. Another potential advantage is the possibility to make priorities on a national level, an advantage not used by the present commission.

One disadvantage with the web system is the low visibility of the QVE concept. Some courses will be related to upper secondary school, some to municipal adult education and others to higher education or private companies. Visibility, recognition and development if an identity will likely be more difficult to establish. Another disadvantage would be the smallness of the different units. It will be harder to handle flexibility other than with time-based employment of teachers.

5.4 Liquidation - QVE as part of municipal adult education

Liquidation sounds more dramatic than it really is. What it actually means is QVE disappearing as a concept of its own. The courses would be integrated into other educational systems, in fact most of them would go to the municipal adult education programmes. There would probably be a few other course providers left, but the advantages of an administrative concentration are still obvious.

This solution would result in a considerable expansion of municipal adult education. In the pilot project these course providers have shown both interest and competence to handle different kinds of courses. Another advantage is that we are dealing with big course providers that can handle flexibility. What is problematic with this form of organization is the total loss of visibility for QVE and it is up to the individual courses to make themselves visible to former students and employers.

5.5 A political decision

Our evaluation suggests that the QVE pilot project has been successful. Students have been attracted to the courses. Course providers have undertaken their duties in a serious way. Companies have supported the scheme by providing sufficient places for workplace-based learning and the vast majority of students have obtained jobs related to this training after their exams. Of course, we have found minor problems, mentioned in our main
report, but the overall impression is that QVE has been successful and ought to be transitioned into a permanent form.

We have pointed out four possible directions for the future. Each direction has strengths and weaknesses. The choice of direction is a political decision. If the parliament chooses integration or separation QVE will get its identity, in the case of integration by borrowing its identity from the universities. The choice of separation is a little more risky but if it succeeds the benefits will be substantial. If parliament chooses prolongation or liquidation a positive outcome is guaranteed but probably on a lower level.

The political choice has implications on many levels in the society. Do we want a centralized or decentralized educational system? Do we wish to create opportunities for private educational companies or is education something that is best handled by the state-owned school system? These questions and many other decisions belong to the political process.

6 Acknowledgment

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Paper IV

Among Demons and Angels: attitudes towards system evaluation for quality improvement in advanced vocational education

Among Demons and Angels: attitudes towards system evaluation for quality improvement in advanced vocational education

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Abstract
This paper investigates attitudes among educational organisations towards the use of system evaluation for quality improvement in Swedish higher education. The subject of this investigation is the evaluation of the pilot project on advanced vocational education (AVE), which was conducted between 1997 and 1999 by a research team at the Luleå Technological University. The investigation was carried out in the form of a telephone inquiry with a strategic selection of the education organisers. The investigation shows that 65% of the respondents regard the work of the research team, built on the system-evaluation model, as an instrument to inspire confidence and contribute to renewal.

Introduction
Evaluations have become an increasingly important instrument in carrying out reforms of higher education in Sweden. There are several reasons for this development. One is a desire to acquire knowledge of the objectives set up for certain educational activities and to check whether these have been attained (Franke-Wikberg & Lundgren, 1979). A second motive is the desire to know what primary and secondary effects have resulted from the educational activities in question. A third motive is that representatives of the political establishment want more information on the economic resources used to implement the activities (Stevrin, 1991; Franke-Wikberg, 1992).

In recent years, a parallel development has become discernible in view of educational organisations' increasing interest in the evaluation models developed in quality management. There are two main motives behind this development. First, evaluation for improving quality is perceived by the educational organisers to be particularly important in maintaining a competitive edge over the growing market of private education and training companies in Sweden (Lindell, 2001). Second, the models illustrate the importance of taking advantage of various stakeholders' needs and expectations in the best way possible. The needs to be considered are often complex and varied since they are derived from stakeholders with different motives, such as, educational and policy planners at the state level, employer and employee bodies, local companies and students. Evaluation and quality assurance, in the sense that the expectations are met, are very important for providing education that is sought after and fits the demands of working life. This interest can be exemplified by the establishing of quality awards such as the European Quality...
Award and Malcolm Baldrige National Quality Award. In both Sweden and abroad (Muller & Funnell, 1992), this interest has also been carried over to organisations in the educational field. In Sweden, for instance, a special award for schools, the Swedish Schools Award, was established in the mid 1990s.

With the increased importance of evaluation in higher education, research and debate has focused on the choice and design of models of evaluation. The most widely used models in Sweden for evaluating educational reforms are often referred to as 'engineers'-models'. In these, evaluators attempt to be independent and impartial, avoiding, as far as possible, contacts and communication with respondents. Nor is the evaluator allowed to make suggestions for improvements or support during the process of the evaluation: comments are communicated separately (Vedung, 1995).

However, this attitude is changing in Sweden with the development of various alternatives to the 'engineers'-models'. According to several studies, this has taken place because of increased political awareness of the demands of pressure groups during the evaluation (Karlsson, 1995). System evaluation is one of a number of models that build on this new evaluation concept.

One major problem is the lack of research into how interactive system-evaluation models are perceived by those evaluated. Only a few of the national evaluation projects for higher education reforms conducted in Sweden during the 1990s have used systems evaluation (Kim, 1997). This investigation starts from a national evaluation project on Advanced Vocational Education (AVE) that uses the concept of systems evaluation. It studies how the evaluation process was perceived by those evaluated. The evaluation was performed between 1997 and 1999 by a research team from Luleå Technological University (SOU, 1999).

This investigation aims at answering two questions. The first concerns the extent to which the work of the research team on the AVE-project is perceived as a support for development of the educational organisations. The second aims at answering whether the work of the research team on the AVE evaluation is viewed with confidence or mistrust among the educational organisations.

Principles of the System Evaluation Model

The systems-oriented perspective implies that an attempt is made to describe and characterise the totality constituted by the subject of the evaluation (Stevrin, 1991). Instead of dividing the subject of this analysis into its constituent parts, an attempt is made to understand the activities and its various parts starting from the totality and its properties. The systems analysis is focused on illuminating the relations and interaction among the various parts of the whole. In systems evaluation, the main interest is focused on the structure present in the object being evaluated and the intrinsic processes. Thus, the systems-oriented approach consists of two partial analyses: structural analysis and process analysis.

In the case of structural analysis, the evaluator starts from the degree of agreement between and within the various system levels. For the activity, as a whole, to work satisfactorily, there should be a suitable degree of agreement among the various parts of the activity and between the activity and society in general.

In its turn the process analysis aims at providing a deeper understanding of how the system works and how it has developed over time. In this connection, the evaluators also try to form an opinion of such things as the patterns and mechanisms that characterise the
system. Other criteria are adaptability, the ability to identify changes in requirements, and mechanisms for feedback of information (Stevrin, 1991).

The Work by the Research Team on the AVE-Project

The Swedish government launched AVE in 1996, and it was intended as a new form of post-secondary education in which one-third of the course time is devoted to advanced application of theoretical knowledge at a workplace. In January 2002, AVE became a permanent part of continuing vocational training (Proposition 2000/01). The primary focus of training is to provide basic vocational education for the unemployed. It was intended that courses should be based on active workplace-centred learning and problem-solving in an overall educational context. The length of courses ranges from 40 to 120 points, where each point is equivalent to 1 week of full-time study. Courses are structured around close co-operation between enterprises and various course providers (upper-secondary school, municipal adult education, higher education, and commercial training companies). There are currently no restrictions on the sectors in which AVE is provided: it is open to people coming directly from upper-secondary school and to those who are already in employment and who wish to develop their skills within a defined area.

The task of evaluating the pilot project with AVE during the period 1997–1999 has been illuminated with trial activities from a total of 10 different perspectives, and has encompassed some 12,000 students, distributed over about 200 different course programmes. These programmes were in turn divided into 12 different fields, each representing a sector of the Swedish labour market, such as health care, tourism, manufacturing and finance. One part of the evaluation was mainly intended to support the activities of those being evaluated. This part was based on the use of self-assessment based on the theories of total quality management (TQM).

Generic Picture of the Evaluation Process

The various channels for collecting data for the research team can be summarised in a model (Figure 1). Six channels for data collection were used in the evaluation.

The Evaluation Scheme

The basic work of designing the evaluation model and the specific technical problems associated with the evaluation of AVE can be viewed both at a national and at a local level. The two levels are combined with the six channels for data collection. At national level, self-assessment, survey studies of the students and studies of national statistics are
performed. At local level, the research team performs visitations and face-to-face interviews and telephone-interviews.

National Level: the overall design and objectives of the trial activities

On the national level, the research team based their work on reports and surveys of the Swedish labour market with a view to catering for future requirements. These included the need for a higher vocational educational level and a more versatile workforce. One problem in this form of post-secondary education is the uncertainty about how and what students should learn in a rapidly changing labour market, which is characterised by international competition.

In view of this uncertainty, the research team found it important not to use an objective model but instead use a model that would support the improvement work during the trial period rather than checking the extent to which the goals have been met after conclusion of the project. Furthermore, the research team found it valuable to use a model that permits the subject of evaluation to change its established goals in the course of the trial activities but is still able to judge whether or not the change implies an improvement. The principal means of supporting improvement work among the AVE organisations, and at the same time taking care of data collection for the evaluation work, was self-assessment in the respective educational organisations. All AVE educational organisations were, therefore, offered a tool for self-assessment to support improvement work. Self-assessment also constituted a means of collecting data required for the evaluation. A second information channel was the collection of national statistics for the educational system, which were then compared with AVE.

Self-assessment in AVE Organisations

A special tool for the self-assessment, based upon TQM and called 'Läroverket' [1], was constructed at the Division of Quality Technology & Statistics at Luleå Technological University (Svensson & Klefsjö, 2000). Here TQM is defined as 'a management system consisting of core values, methodologies and tools, which support each other in order to increase customer satisfaction with less amount of resources' (Hellsten & Klefsjö, 2000).

Self-assessment, developed and supported by various quality awards during the last decade, has become established as a tool for quality improvements. In this project, self-assessment has been introduced as a process consisting of the following four phases: planning, description of the organisation, analysis of the description, and creation of a plan for improvement (Svensson & Klefsjö, 2000, p. 238). These four phases are closely related to the four phases of the improvement cycle 'plan–do–study–act' described by Deming (1994).

'Läroverket' was developed as a basis for the self-assessment work and is built on the core values by Bergman and Klefsjö (1994). The structure of 'Läroverket' is inspired both by the criteria for the Swedish Quality Award and a tool named 'Springboard' (Hellsten, 1997a,b). 'Läroverket' has five evaluation dimensions and from these a number of type-questions are formulated intended to stimulate the systematic work with quality improvement. The dimensions and the questions are:

1. Approach: how are we working?
2. Deployment: to what extent do we do it?
3. Results: what results does the deployment of the approach lead to?
4. Reflection: how do we reflect upon our approaches and deployments?
5. Improvement: how do we work to improve our approaches and deployments?

In ‘Läroverket’, business is structured according to four areas, namely, customer co-operation, leadership, employee commitment, and process-management. In each one of the four areas, approximately 10 questions are asked. In each one of these questions, the three first type-questions (approach, deployment, and results) are used as sub-questions. The two last questions in each area are related to the two last type-questions (reflection and improvement) and refer to the area as a whole. Formulation of the questions in ‘Läroverket’ is, in some cases, adapted to the school system and the AVE evaluation.

Three-day courses about self-assessment are available to support AVE organisations. In spring 1998, 10 education sessions, including the first 2 days, were held at eight places around Sweden. In autumn 1998, the third day was held at six different places. A total of 98 education programmes have participated in the AVE-project. The main reason for organisations to use ‘Läroverket’ was the possibility of getting a base for continuous improvements. Another reason was the potential for the researcher group to collect data about how AVE organisations were working. Therefore, organisations were asked to send their descriptions to the researcher group and 75 education programmes have responded. The remainder had to answer a special questionnaire instead (Svensson & Klefsjö, 2000).

Support for some parts of the fundamental ideas in tools like ‘Läroverket’ can be found for instance in Garvin (1988), who points out the advantages of using more than a single definition of quality in an organisation. Harvey and Green (1993) discuss the opportunity and the benefits of using several different definitions of quality when working with quality in educational organisations. This reasoning may support use of tools like ‘Läroverket’, while these tools help organisations working with different aspects of quality development. For instance, the area ‘customer co-operation’ in ‘Läroverket’ refers to user-based approaches and the area ‘process-management’ at least partly refers to the manufacturing-based approaches.

Survey Studies of the Students

In parallel with the self-assessment instrument, three directed survey studies were conducted with the students. Each of these studies had different sets of questions depending on the phase of the educational process the students were in.

The first survey, of 9800 students, was distributed at the start of the course. Its purpose was to survey, by means of background questions, the characteristics of people who apply for the course.

The second survey, of 4500 students, was distributed at the mid-point of the course and aimed at establishing whether the course met the requirements for on-the-job learning and integration of theory and practice. A further aim of the study was to survey the students’ personal impressions, experience and impressions of the education.

The third survey, of 1100 students, was carried out 6 months after the students had graduated. This survey, carried out with the aid of the organisation Statistics Sweden, explored the extent to which graduates had received offers of employment.

Local Level: the respective educational organisations

On the local level, the evaluation team went through the difficulties and questions solved by the individual educational organisations. It was in connection with this level that the discussion regarding altered grounds for evaluation arose.
According to Reitberger and Uhlin (1996), older cognitive models of evaluating trial activities are no longer valid when the trend of development is towards new types of educational organisations. New technology, new sets of values and new geopolitical conditions have created not only new educational forms but also new leadership ideals and new forms of communication. Thus, it is not only the physical, organisational and social infrastructures that have changed but also the mental ones. Examples that support Reitberger and Uhlin’s hypotheses in the AVE case are the ability of the evaluator to evaluate the part of the education known as on-the-job learning, which accounts for one-third of the total course time.

On the basis of the above discussion, the research team visited 25 education providers. During these visits, the school management, a number of teachers and students were interviewed, together with several administrators and representatives of working life, all of whom must, according to the ordinance, be associated with all levels of education. Telephone-interviews were conducted with several representatives of organisations that have arranged places for the advanced application of theoretical knowledge at a workplace, and of educational co-ordinators.

In summary, the evaluation study of AVE is an example of the concept of system evaluation in two respects. First, it emphasises multiple channels for input of data, on both national and local level. Second, it offers educational organisations active participation in the evaluation process.

Attitudes towards System Evaluation: model for analysis

The Lundin and Söderholm model (1995) has been used to investigate the attitudes towards the use of system evaluation in the AVE-project. According to this, the encounter between an evaluator and the activity to be evaluated depends in part on the expectations the two parties have and in part on how the party being evaluated experiences the evaluation.

Expectations may either be positive, in the sense that the work of evaluation will lead to development potential being demonstrated, or negative, in the sense that an evaluation is seen as a threat to existing activities. In the former case the evaluation will be viewed with confidence and in the latter with mistrust. Evaluations may also be experienced as ‘backward-pointing’, where evaluators appear only to look for shortcomings, or as ‘forward-pointing’, where there is a sense of renewal.

By a combination of the confidence-mistrust and ‘forward/backward-pointing’ dimensions it is possible to construct a four-field matrix that describes the four different types of evaluators (Figure 2).

An evaluator who is regarded primarily as an instrument of authority can be denoted type I. In this role evaluators are viewed with mistrust as they intervene in the life of those being evaluated with the approval of those in power. This is done, with little interest in the activity, to record discrepancies that it will later be possible to correct. In addition, the corrections made will be mainly of a negative nature. Type I evaluators often encounter various defence mechanisms. Type I lies close to what is perhaps the traditional evaluator’s role, that is to say, evaluation as a form of supervision for someone else’s purposes and with a clear power relation in the background.

Type II evaluators represent the face of benign power. They are met with confidence as they are seen as positive, with a well-developed feeling for how the results of the evaluation will be handled. Those being evaluated have, in this case, much less fear of sanctions and punishment than the type I role gave rise to but this is nonetheless a
supervising function. To summarise, type I and II, respectively, can be seen as comparable to the earlier mentioned roles within the 'engineers'-model'.

The characteristic feature of type III evaluators is that their methods do not aim primarily at looking for and reporting faults and inconsistencies but rather they are concerned with the future welfare of the subject. Type III is thus the true activity developer and assistant, with whose aid those being evaluated can hope to develop their job in a forward-pointing direction. Another important characteristic of type III is the lack of clear, strong connections with the assigner of evaluators and thus, at least in theory, there is no possibility of sanctions. A metaphor often used for the type III evaluator role is an 'angel'.

Finally, type IV evaluators are the representative of an 'evil' power, who tries, with various temptations, to induce those being evaluated to enter into certain contracts for the future that are not perceived as legitimate. It is true that type IV is future-oriented but, in contrast to type III, it represents an undesirable and threatening future against which it is important to protect oneself. In evaluation contexts, the type IV evaluator is referred to as a 'demon'.

**Description of Methods, Selection and Implementation**

Telephone-interviews were used to investigate the opinion of those being evaluated within the AVE-project. The interviews consisted of six questions, divided into two separate parts. The selection of respondents was made on the basis of strategic considerations. Of the total population of 123 educational organisations, those organisations and within them those individuals who, conceptually, were most familiar with the work of the evaluation team, insofar as that they had participated in part of the 'Läroverket' education, administered student inquiries and participated in the programme of visits of the evaluation team. The selection frame encompassed a total of 22 educational organisers. Before telephone-interviews were performed, the selected educational organisers had received inquiry forms.

The interviews consisted of six questions, and were divided into two separate parts. The first part of the telephone-interviews consisted of four questions with fixed alternative answers arranged on a Likert scale (Hellevik, 1984). They were created on the basis of Lundin & Söderholm's analysis model and the concept pairs 'confidence/mistrust' and 'forward/backward-pointing'. Each pair of concepts was operationalised into two contradictory assertions. Each respondent's attitude was placed in the four-field matrix (Figure 2). First, the given alternative responses were graded on the Likert scale with numerical
values from 1 to 5. The numerical values assigned to the respondents' responses were compiled for each of the assertions. Also, the mean values for the four concepts were calculated and entered into the box-plot, which were combined with the four-field matrix (Figure 3).

The second part of the inquiry consisted of two questions with open alternative answers. The questions served to reduce any ambiguity and contradictory answers given in the first part. In addition, background data on the respective educational organisations that can be assumed to bias the answers has been used, that is line of business, ownership form, geographic location and economic financing.

**Demons, Angels or What?**

Of the educational organisations consulted, all 22 respondents answered the first part of the telephone inquiry. However, two respondents chose not to answer the first part of the inquiry with fixed alternative responses with Likert scales, which gave a response frequency of 91%. The investigation shows that 65% of the respondents regard the work of the research team, built on the system-evaluation model, as an instrument to inspire confidence and contribute to renewal.

The overall picture of the results of the study (Figure 3) shows that 10 of the respondents (50%) denoted the work of the research team as forward-pointing. Five respondents (25%) considered it backward-pointing. The remainder were 'undecided'. Sixteen (80%) had confidence in the evaluation and three (15%) mistrusted it. All 10 who indicated forward-pointing evaluation also exhibited confidence in the process. Fifty percent of the sample denoted the research team as type III (angels). No one identified the team as type IV (demons), although two respondents were on the borderline in the matrix.

Looking more closely at the organisations that express the evaluation of the research team with confidence and as forward-pointing in the matrix, the data do not give any evidence that the organisations have something in common that could explain the concentration. However, geographically, there is a tendency for organisations near Luleå Technological University to have greater confidence.
On the other hand, looking at the organisations that express mistrust in the matrix, two of the three are private companies. If number 16 (in Figure 3), who lies on the boundary between confidence and mistrust, is also included in this group the result would be that three of the four who lack confidence in the evaluation project are private companies. Also, three of the five who are of the opinion that the evaluation project has not been forward-pointing have chosen not to work with 'Läroverket'.

Although the study indicates a positive view of the work of the evaluation team, there are three conceivable sources of error. First, the small and selective choice of respondents: given that the selection constitutes only 16% of the population, the results should be approached with caution. Second, the selected group that was chosen had participated in the evaluation team’s programme of visits. Thus, they have good knowledge of the method of working but, in addition, one cannot ignore the likelihood that personal contacts and conversations have toned down earlier critical opinions. Third, the analysis of the interview transcriptions that was done afterwards showed that some respondents had clearly been bent on giving their judgement of 'Läroverket' and its use, in spite of the study being concerned with their views on the work of the evaluation team as a whole.

However, the study shows that a majority of the respondents perceive the work of the evaluation team as both forward-pointing and confidence-inspiring. Most respondents perceive the evaluators' roles as of type III. Thus, there is support for the use of models of the systems-evaluation type based on an interactive and learning attitude.

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Note

[1] The name 'Läroverket' is not translated into English, because of difficulties in achieving the two interpretations in Swedish. It means a secondary grammar school, but can also mean a book, or something from which you can learn.

References


Between Policy and Practices: Structuring Workplace learning in Higher Vocational Education in Sweden and Finland

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ABSTRACT Sweden and Finland have a long and close socio-economic relationship. However, their educational systems (especially their systems for providing higher vocational education and training) differ significantly. Since the late 1960s, Sweden has integrated vocational and general education into a structurally uniform national educational system. Finland, however, has emphasised a dual system with two parallel sectors within higher education: Universities and Polytechnics. From this political context, this study considers the recently established higher vocational education reforms with Swedish Advanced Vocational Education (AVE) and Finnish polytechnics in terms of organisational structure, the design of workplace learning, and furthermore, what kind of practical implications these new models of learning at work have resulted in. The results, which are contemplated with other similar international research findings, suggest that despite differences which stem from the nations' political, economical and socio-cultural background, the formal methods engaging educators and representatives of working life are rather similar. However, the general implications are different. While the Swedish AVE has focused more on a principally demand-led system with de-centralised planning and design of programmes to fit the specific needs of regional labour markets, the Finnish Polytechnics have instead maintained a strong institutional framework, focusing more on research and development issues.

Key words: Workplace learning; Partnership and Co-operation; Higher vocational education and training; Advanced Vocational Education; Polytechnics.
Introduction

Sweden and Finland are close neighbours on the Scandinavian Peninsula with a long history of socio-economic relationships. Although both countries are considered modern welfare states, their education systems and in particular their vocational education and training (VET), are in several aspects significantly different. In Sweden, one of the main goals since the late 1960s has been to narrow vocational and general education by developing a single integrated education system. Hence, vocational education and training in Sweden has gone from being a primarily industry-based system to a school-based system with diminishing influence from working life (Lindell and Abrahamsson, 2002).

In Finland after the Second World War, vocational education and training has also been developed systematically by providing programmes in institutional education (Ministry of Education, 1999). In contrast to Sweden, Finnish educational policy for upper secondary and higher education has not been aimed to combine general and vocational education, but to keep these tracks apart, thus designing a dual educational system comprising two parallel sectors: Universities and Polytechnic institutions.

However, despite these structural differences both nations are, as the majority of western countries and elsewhere, subjected to the same forceful global trends of technological, economical and socio-cultural transitions. It is widely acknowledged that because of developments of new information technology, integration of economies and the emergence of global competitive markets, the worlds of work have undergone a rapid restructuring, following new conditions for the labour forces with, for example, non-standard employment conditions (Boje and Grönlund, 2002; Boud, Solomon, and Symes, 2001; Casey, 1999; Tessaring, 2000).

Global challenges of learning at work

The increasingly competitive nature of the global economy and occupational change has in turn had a significant impact on the nature of work. In general, the concept of work has become more fragmented and subject to processes of rapid and unpredictable change. This process which affects the physical, emotional and cognitive demands on workers includes, for example, blurring of distinctions between the private sphere and working life and the difference between what is learning and actual production (Garrick and Jakupec, 2000). These changes have in turn meant that the skill level of employees is subject to continuous development (Johnston and Hawke, 2002; Lindell, 2000; Beck, 1992), which in turn has spurred the need for the introduction of new and more efficient solutions for improved educational attainments and provision of individual skills (Brandsma and Nijhof, 1999; Furlong and Cartmel, 1997).

Perhaps most importantly, education and training is no longer seen as being solely the realm of educational institutions. Rather, education and training is increasingly viewed in terms of a broader network-thinking involving the workplace, educational institutions, individuals and a variety of government, private enterprises and community organisations (Illeris, 2003; NCVER, 2002; Garrick and Jakupec, 2000). In addition, because of the complex constellation of economical, social, cultural and political forces that mainly drive and expand our perception of globalisation, Jakupec (2000) in his concise analysis asserts that provision of tertiary and higher education and training are no longer only a national concern, but increasingly a question of building international networks and alliances by the use of Information and Communication Technology (ICT), hence enabling a global information flow.
where formal knowledge, training and learning experiences, thoughts and ideas are exchanged on the same premises as, for example, in the financial markets.

In this context, the Swedish integrated approach of providing VET experienced some difficulties in the beginning of the 1990s, mostly because the educational system tended to focus more on what schools can supply, rather than what industry actually requires (SOU, 1995). Similarly, in Finland by the end of the 1980s it was felt that the education and training structure did not respond to the rapidly changing needs in the labour market or the changing international environment. Here it was believed that the most efficient way to expand higher education was to establish more vocationally and practically-oriented institutions.

In response, in 1991 the Finnish government launched the reform of polytechnics that together with the traditional universities provide the highest level of vocational education and training (Ministry of Education, 2000). In a similar situation to meet the demands from domestic industry and commerce, but also to counteract the rather high rates of unemployment, especially among young people, caused by the extensive economic recession in the beginning of the 1990s (SOU, 1993), and to facilitate adult students looking for education alternatives other than employment and traditional academic studies, in 1996 the Swedish government launched the reform of Advanced Vocational Education (AVE). What jointly characterises these two reforms are the strong efforts of trying to bring educators and representatives of working life together in order to develop new forms of workplace learning, with the clear goal of smoothing labour market entry.

Aims and research questions

Since their start in the early and mid 1990s, the two reforms with AVE and polytechnics have both been subject to extensive national evaluation studies. While these studies have mainly evaluated the fulfilments of the reforms providing students with ample training, companies with labour force, and modes of organising learning environments, the studies have also been rather internationally off-screened. Indeed, while the domestic studies have observed and identified the sources of inspiration when launching the reforms, no efforts have yet been made anticipating the actual outcome, and most importantly, exploring experiences developing workplace learning in an international context.

Hence, the principal aim of this study is to analyse the organisational structure of the Swedish AVE and the Finnish reform of polytechnics in terms of their ability to bridge the worlds of work. In particular, this study aims to explore how workplace learning has been organised, and furthermore, what kinds of experiences and practical implications these new forms of training have resulted in. The comparative nature of this case study allows us to explore the common concerns with partnership within countries with similar backgrounds, yet different traditions of policies providing workplace learning.

This study addresses the following three research questions:

1. What are the main differences between how workplace learning is formally designed and organised within the reforms of AVE and Polytechnics respectively?
2. Based on empirical results, how is workplace learning practically arranged involving educators and enterprises within the reforms of AVE and Polytechnics respectively?
3. Within a broader international context, what implications and lessons for bridging policy and practices in structuring workplace learning within higher vocational education could be learned from the experiences with AVE and Polytechnics?

This study has three objectives. Firstly, this study analyses the relevant theoretical and applied literature on Partnership and co-operation and Models for learning at work. As indicated in
the introduction, the concept includes both positive and negative aspects, and the literature review considers both sides. Secondly, this study analyses government reports and official policy documents in Sweden and Finland describing the formal grounds for and organisation of workplace learning. Thirdly, this study analyses the differences between the official planning of and the actual experiences and implications of implementing workplace learning from a cross-national perspective.

**Contextualising workplace learning**

The concept of workplace learning is deemed to be among the highest priorities of western economies. At the same time this globally disseminated concept has many different connotations, causing confusion as to what it actually comprises. Indeed, depending on the context apprenticeships, traineeships, work-based degrees, continuing vocational and professional education, could equally be labelled as different categories of ‘workplace learning’ (Forrester and McTigue, 2004). For this cross-national case study defined as an umbrella-concept including both formal, informal and occasional methods of learning at the workplace (see Boud and Garrick, 1999; Ellström, 1992), the motives for pursuing workplace learning are, besides pure economical reasons also educational, social and cultural (Garrick and Jakupec, 2000). Hence the suggested benefits are multiple. Taking a managerial perspective, Sauter (1999) stresses that workplace learning enables rapid application of what has been learnt to cope with the growing volume of work and more stringent quality requirements. Similarly, Curtain (2000) suggests that workplace learning offers at least three sets of benefits which at the same time link educators and working life together. Firstly, employers can demonstrate to students the skills needed, and hence reinforce the value of relevant education. Secondly, students gain a better appreciation of how and why classroom performance is important in their future career, hence exert more effort. Thirdly, teachers accrue additional authority towards students based on when they have a close association with future employers.

While the emergence of strategies for implementing workplace learning is often hailed as an all-positive innovation bringing people into work and promoting lifelong learning, there are also negative aspects associated with the concept that need to be addressed and critically examined. Analysing the scope and range of this international critique, Fuller, Munro and Rainbird (2004) suggest that it could be divided into three research fields or contexts. In the first field, the institutional context of workplace concerns issues related to the political framework and the theoretical underpinnings which together structure the design of and developments within workplace learning models from a global perspective. In the second field, the organisational context is mainly concerned with studying the workplace as a learning environment, where focus is upon organisational factors, social relations and the individual agency. In this context, questions of access to and equity in workplace learning based on social class, race and gender are also relevant. In the third approach, criticisms include labour process-oriented issues examining the knowledge and values that are transferred (and not) with the learning.

In her critical examination of the institutional context, Fenwick (2001) suggests that because the concept of workplace learning builds on the assumptions of a positive correlation between education and productivity based on human capital theory, which in turn are embedded within the market discourse supporting the neo-liberal ideology of global capitalism, the fundamental question to ask is who actually benefits from learning? In her critical analysis, Fenwick argues that while the common opinion about workplace learning supposedly leads to emancipation and independence of workers, the concept could also be seen as a tool for indulging an agenda where individuals are more or less inclined to conform
themselves with the goals and ambitions of the corporate enterprises. In some radical cases, these attempts to conformism can presume an almost religious dimension where the most inner values and personal convictions of an individual, through learning, are being moulded and occasionally replaced with stereotyped corporate values. Thus contemporary analysis should dismiss the discursive, all-positive image of corporate-sponsored training that are fed into society by high finance and instead critically examine the underlying existing power structures of markets, between educationalists and enterprises and between employers and employees. Focusing on the organisational level, Fenwick also challenges the employer-driven model by emphasising that the concept of situational learning has some problems since workplace communities tend to be conservative and protective of their knowledge. Hence not having the tradition or culture to systemically reconsider or reflect on their actions as in the case of professional educationalists, the natural learning processes could in fact restrain the growth of the community itself (Fenwick and Lange, 1998; Fenwick, 2001, see also Billett, 2001).

Elaborating on this discerning argumentation further, Ashton (2004) asserts that perceptions about the function and efficiency, and hence national policies, of workplace learning are not globally uniform but deviate between societies in general. This is because the concept of workplace learning is not a free-standing innovation in society, but intertwined with and dependant on the underlying relationships between the State, Labour and Capital and the Production system and also how these institutions in turn are dependent on the nature of systems of vocational education and training (VET) provisioned in each society. Supporting his argument Ashton develops a critical taxonomy of VET systems where he distinguishes between three main models of VET; the Free Market model which is exemplified in the United States and England; the Corporatist model which he locates to Germany and Denmark; and the Developmental State model, which he attributes to the Southeast Asian societies of Singapore and Taiwan.

Following this taxonomy, Ashton argues that with the Free Market model, the State by tradition had little say about training, hence responsibility for workplace learning had been given to enterprises and individuals to solve, which could explain the strong emphasis on organisational efficiency and the lack of facilitating individuals' needs. In comparison, within the Corporatist model, the State by tradition plays a more active and powerful role mediating between Labour and Capital interests, promoting the use of workplace learning within a broader set of issues such as democracy and citizenship. Finally, in the Developmental State model, which is mainly to be found within the newly industrialised countries (NIC), the State initially plays an important role as a resource and funding partner for setting up training facilities and workplace learning arrangements. In a later development phase, the influence of the State however diminishes as the internal labour market structures with its own rules and regulations for training and learning grow stronger. Conclusively, analysis of institutional contexts of workplace learning should, besides having a critical scope, also acknowledge the ideographical circumstances that exist between the economical, political and educational institutions between societies (Ashton, 2004).

**Partnerships and co-operation between schools and enterprises**

One of the most fundamental policy issues within the institutional context of workplace learning, is the strategies and approaches used in which educators and enterprises engage in partnerships and co-operation for provision of learning at work. This is, of course, not a recent innovation in any sense since schools and enterprises have been involved with each other at least since the late 1800s (see Lankard, 1995). Nevertheless, with the emergence of a global competitive economy, there has been a boost of research studies suggesting the need for
studying the opportunities and constraints of learning at work within a broader systemic approach consisting of the enterprises, the educational system and other public and private bodies, as partnership is perceived to have positive effects for the participants (Smith and Betts, 2000; Maclaren and Marshall, 1998). For enterprises the benefits are, at least on a superficial level, positive as it allows them to ‘outsource’ activities while keeping core business activities for themselves. For schools partnerships imply an opportunity to keep up with the latest technology and models of work organisations. For individuals, learning at work implies an opportunity to experience the requirements and atmosphere of a certain trade at an early stage of their career.

Conceptualising the institutional context of workplace learning, the authors of this paper have elaborated a systemic model that was originally developed by the National Centre for Vocational Education Research (2002). The modified model as seen in Figure 1 below, suggests the inter-connections between educational institutions on the one hand, and the enterprises and its managers on the other hand. Also acting as input on the formal and informal structuring of the workplace-learning context are the direct environment factors. As could be seen, these factors are highly contradictory in that there is on the one hand the notion of knowledge economy coupled with technological change and the following discourse of staying competitive or being laid-off and, on the other hand, the perception that workplace learning should also act to promote lifelong learning and citizenship.
On the outside of the direct environment factors, educational institutions and the enterprises are the wider societal contexts which also indirectly influence the workplace learning developments. In the literature review examples, of how the constellation of economical, political, social and cultural forces act on an international level have been exemplified by Garrick and Jakupec, 2000; Fenwick (2001) and Ashton (2004). Conclusively, two of the most important links that research has been focusing on recently are: firstly, the conditions for partnership and co-operation between educators and enterprises, and secondly, models for learning at work.

Exploring the conditions for developing successful partnerships, Bateman and Clayton (2002) from their international literature review, conclude that besides factors such as good communication, other factors such as; True willingness to collaborate; Shared vision including a set of agreed goals; Respect and trust; Effective and respected leadership; Mutual willingness to take risks, and finally; New skills and mindsets are also required or highly
recommended. Of these factors, Bateman and Clayton, stress the factor of respect and trust as critically important, a finding which is supported by other studies (see Phelan et al., 2003). Educational institutions and enterprises are dependent on each other, regardless of the context in which they are formed. In addition, having a mutual, and realistic, understanding of what could be achieved is also pertinent.

**Cultural and social constraints on partnerships**

However, as research studies have shown, many times collaboration tends to fail due to a lack of clarity concerning roles and lack of understanding about the very social mechanisms through which coordinated collaboration can be conducted (Keep and Payne, 2002). In this perspective, it is important to acknowledge the cultural dimension when forming partnerships, which in turn is highly intertwined with the prevailing traditions that exist within the broader domestic systems of industrial relations. For example, while in England the detailed and target-based approach by central educational authorities on the one hand, and the private market-model approach for provision of VET on the other hand, is a ground for conflict (Oh, 2003). In Denmark, Sweden and Norway, centrally-set educational frameworks are also provided while contents are usually determined locally, facilitated by the traditions of twopartite negotiations. This appears to provide more flexibility and a climate for mutual understanding (Green et al., 2001; Wallis and Stuart, 2003).

Elaborating on partnership and co-operation from a Swedish employer perspective, in a recent report the Swedish Federation of Private Enterprises (FPE), criticises the national universities and university colleges for their meagre support of knowledge-intensive SME’s. Pinpointing the problem, the Federation argued that old values and traditions are one of the largest impediments to co-operation. In particular, universities often tend to regard themselves as the main knowledge-generating factor in society, and lack interest in sharing the knowledge beyond research society. A second problem is the lack of time and financial resources where SME’s and universities often are diametrically opposed (FPE, 2001).

Furthermore, as findings from other published studies suggest, the relationship between the individuals participating, public and private institutions for collaboration are complex and not always consistent. In a Finnish study monitoring a workplace learning experiment in a sample of national upper secondary schools, Lasonen (1999) argues that while the workplaces provided an opportunity for learning situation-specific dimensions of the work by hands-on experiences for the pupils, enterprises at the same time did hesitate somewhat as the learning programmes allocated financial and material resources. Similar, reporting from Canada about the implementation of a vocational training programme in the Pulp and Paper sector, Savoie-Zajc and Dolbec (1999) found in their study which focused on understanding how collaboration evolves, both advantages and downsides on the structural level. On the positive side, collaboration was perceived by both sides as a way to better competencies, upgrading the quality of training, exchanging resources, but perhaps most importantly as a way to establish the credibility of the schools in the near social environment. Commenting on the negative aspects, the researchers found that enterprises’ interests in collaboration are clearly linked with their ambitions for higher efficiency and productivity, hence when there is an economic drawback, enterprises do not have the same interest in welcoming students for learning. Moreover, enterprises questioned the rigidity of school programmes wanting more influence in the design of curricula. Another interesting finding by Savoie-Zajc and Dolbec is that longer-term existence of collaboration and partnerships is probably not only dependent on good communication and mutual understandings between schools and working life, but also on an intra-organisational level.
Focusing on the issues of gender and equity as part of the complexities bringing universities and enterprises in Australia together, Solomon (1998) found in her study that when higher level management were present, meetings and gatherings tended to be hierarchically organised, not allowing all members to have their full say. Finally, Solomon also observed that men tended to take most conversation turns, disadvantaging women and non-English speaking staff. The creation of workplace teams also seemed to threaten the position of middle managers who resented the offer of communication. The lack of communication and response to requests made by shop-floor employees was also perceived as frustrating.

Models of learning at work and qualifications

The contextual level of forming partnerships for effective provision of workplace learning is generally included in the various models however, most importantly these models are also used for actual implementation and their interaction with qualifications, Evans and Rainbird (2002) elaborate on the contemporary models suggesting that four different but overlapping forms of workplace learning can be found. The first form is initial workplace learning in traineeships and apprenticeships. Various types of apprenticeships and traineeships undertaken by students of compulsory education are included in this group. Parallels of these programmes are being used in most advanced economies. Differences between these economies can be found concerning how central these programmes are to the wider systems of education and training. The second form of workplace learning, work-based degrees and ‘foundation’ degrees, is on the increase in higher education in the USA, Australia and the UK. In these programmes the ‘clients’ can gain credits from their work experiences and achievements. The degrees are awarded on the basis of these credits (Evans and Rainbird, 2002). In line with the second model Lave and Wenger’s model on how the apprentice undertakes a clearly defined and bounded linear journey in which older workers train and mould their successors, thereby ensuring the continual reproduction of an organisation or community of practice (Lave and Wenger, 1991).

Non-formal workplace learning, the third form of work-based learning, can be defined as learning through work and community experience. One way of measuring this non-formal work-based learning is National Vocational Qualifications (in the UK), which try to recognise and accredit competence developed through experience and practice. Non-formal learning may also include planned and explicit learning approaches in other environments outside the formal education system. Non-formal learning is a dimension of initial vocational education and training too. The fourth and last form of these work-based learning definitions is access to continuing non-formal learning opportunities through the workplace. In this group the non-formal learning opportunities are made available in the workplace through external providers. In this form of workplace learning the role of lifelong learning is essential (Evans and Rainbird, 2002).

Interaction between qualifications and work-based learning

Eraut (2002) has defined four different types of interaction between qualifications and work-based learning. The first type is transfer of knowledge gained from qualifications. Most of the knowledge qualifications provide does not become usable at work without further learning in the workplace itself. Transfer of knowledge is about recognizing what prior knowledge fits the current situation. After recognizing the relevant knowledge, a new assembly of knowledge and skills required for situational understanding and responsive action is integrated (Eraut, 2002).
Accreditation of work-based learning is the second type of interaction between qualifications and work-based learning. There is a difference between the accreditation of learning which has already taken place, in order to gain status or selection value from its external recognition and further learning in the workplace which is stimulated by the reward of qualification. Usually the assessment process covers a mixture of previous and newly acquired competence. It can be argued that accreditation will provide an incentive to the learner when it confers a qualification with significant selection or promotion value, but that value can be added only if the assessment process entails significant further learning and a tolerable amount of cost and effort (Eraut, 2002).

The third interaction type is mutual enhancement through integrated learning. This type of interaction is described to be ideal. Mutual enhancement through integrated learning is learning through interaction at the point of use: when planning, conducting, managing or evaluating work-based activities, processes or outcomes. This type of interaction can be described as using the more formal knowledge which is gained in working for a qualification to enhancing the quality of ongoing informal learning in the workplace. This type of interaction involves deep, critical and systematic thinking about work-based practices and experiences with guidance from concepts and ideas encountered in educational/training context (Eraut, 2002).

The fourth type of interaction, competition for attention and commitment, can occur when learning associated with qualifications has to compete for the learner’s time and attention with other learning in the workplace. This can cause many negative effects. Aspects of the qualification may have little or no relevance to the workplace or they fail to improve the learner’s career prospects. It is possible that qualifications can relate to and make demands on some job aspects but not on others. This can result in learning needed for qualification receiving more attention than other learning needs (Eraut, 2002).

Research methodology and procedure

Exploring the design of workplace learning within higher vocational education programmes and its practical implications, this cross-national case study employs qualitative data gathering and analysis techniques (Simons, 1996; Stake, 1995).

The research strategy includes three main steps. Firstly, in order to provide a contextual background and a deeper understanding for the formal design and organisation of workplace learning within the two reforms, a number of domestic research studies, government reports and other policy documents were examined. To retrieve the background information, governmental and bibliographical databases in Sweden and Finland were searched. In the process of selecting relevant sources, the authors felt it necessary to be flexible by keeping the amount of text material to a minimum. This decision was based on earlier experiences that each nation produces more policy texts on educational development than any of us could be expected to analyse within a lifetime. Thus, emphasis was put on analysing significant policy documents behind each reform only.

Secondly, exploring the practical arrangements for workplace learning in the ‘field’ when implemented in co-operation between educational institutions and enterprises, this study brings the most recent national data available. For this step, an in-depth research overview for completed or on-going research studies on these two VET reforms in question was first made. In particular, the overview emphasised research studies which included the topic of collaborative partnerships and models of learning at work. Criteria for inclusion of studies included rigorous research methodology with concern for validity and reliability of the sample, instruments for measurements, and scrutiny of analysis. Moreover, the authors
attempted to assemble research findings not just from educationalists and public agencies, but also reports representing employers’ opinions as these were available.

From this overview, the Swedish data in this study stems mainly from two national evaluation studies named: Evaluation of Advanced Vocational Education—Report From a Research Team (SOU, 1999a) and An Evaluation of Advanced Vocational Education Commissioned by the Committee on Advanced Vocational Education (SOU, 1999b). In the Finnish case, the data consists of a wide range of research studies including statistical data and governmental reports and policy documents. In addition, descriptive statistics from the national database on monitoring the polytechnics, the ‘AMKOTA’ were included.

Thirdly, in the final step where empirical results, experiences and practical implications with workplace learning within the two reforms are concluded, a conceptual framework for cross-national analysis was developed. Into this framework, two analytical parameters were discussed. In sum they represent a heuristic attempt offering two different levels comparing the national strategies bridging education and working life, as displayed by the dotted twin-headed arrows in Figure 1. Hence the model of analysis could be visualised as in Table I below:

<table>
<thead>
<tr>
<th>National VET Reforms</th>
<th>Community level (Partnership &amp; Co-operation)</th>
<th>Organisational level (Models of learning at work)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Vocational Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polytechnics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: authors

The first analytical parameter is at community level, which in this study we stipulate as the work on building partnerships and sustainable networks between educational institutions and enterprises. The second analytical parameter is at organisational level, which in this study has been stipulated to be the various models of learning at work that are used linking educational institutions with the workgroups and individuals within enterprises.

**Methodological concerns and delimitations**

This study has some methodological concerns and delimitations that need to be addressed. The main reason for concern consideration is, as with all cross-national studies, the difficulty to standardise for the host of related factors that vary between nations (Ryan et al., 1991). In this case study, there are two immediate concerns. Firstly, there are differences on the curricular level between the two systems (Ahola, 1999). While the polytechnics include training of medical nurses, social workers, and engineers, these forms of professional degrees are not provided by AVE in Sweden but are the responsibility of Universities and University colleges (Lindell and Adams, 2000). Secondly, although Swedish and Finnish labour markets have developed along similar patterns in terms of industrial sectors and the emergence of labour unions, and employer associations, differences do exist on how these various representatives view the role of training, as well as their requirements for granting work licences, certificates, which in turn grant entry into a specific trade.

Finally, some words on the delimitations of this study. As has been described in the preceding literature review, the inclusion of variables such as the distribution of participating individuals’ social class, gender and race etc, are acknowledged as important indicators when
analysing power relations and employment relationship in workplace learning. However, in this study the authors have excluded these categories of data for two reasons. Firstly, this study considers the institutional context of two higher VET reforms in a cross-national perspective and the partnerships with the worlds of work and the inclusion of data about individuals' backgrounds is outside the scope of this study. Secondly, the use of cross-national data in terms of individuals' background etc. renders very cautious means of statistical standardisation procedure (see Ahola, 1999). As the research of workplace learning within these two particular reforms in higher VET are developing, studies including issues of individuals' access to and equity in workplace learning is a matter for future research.

The Swedish reform with Advanced Vocational Education

The reform of Advanced Vocational Education (AVE) was initially launched in July 1996. In the government report (SOU, 1995) that preceded the launch, the investigator concluded that drastic improvements in VET regarding flexibility and adaptability had to be made. The report especially focused on the lack of tertiary vocational education emphasising workplace learning, which resulted in a short supply of specialists in several sectors of the Swedish labour market. To achieve this progress, the report stressed the need to move away from a centralised educational planning system towards a decentralised system where representatives from regional and local enterprises are encouraged to take an active part in development and implementation, hence moulding VET programmes to their specific needs in combination with strong elements of workplace learning (SOU, 1995).

Organisational structure within AVE

AVE saw a number of new educational as well as organisational features being introduced. Firstly, as required by law one-third of the course programme, which ranges from one to three years in length, is devoted to advanced application of theoretical knowledge outside school at a company or organisation under the supervision and guidance of an experienced worker (SFS 2001:239). Secondly, each AVE programme is designed in close co-operation with regional and local businesses to reflect their particular needs for skilled workers. The final decision to start a new programme rests, however, with the National Authority of Advanced Vocational Education (NAAVE), that besides assessing applications, monitoring and evaluating the quality of the programmes, also grants financial support.

Thirdly, to facilitate maximum employability, the content and subject matter in the programmes comprise different parts taken from labour market training, upper secondary schools, supplementary courses, and universities. This means that AVE is not provided at certain educational institutions with a fixed curricular level within the national education system. Instead, organisational belonging and responsibility varies between those who have the best opportunities depending on teacher competence and location. Thus providers of AVE programmes are upper secondary schools, municipal adult education, higher education, and also private training companies. To further increase its flexibility, every AVE programme is only permitted to start a maximum of five times after which its effect on the local and regional labour market is evaluated by the NAAVE. If the demand appears to be fulfilled the AVE programme could be subject to termination.

The reform of AVE became a permanent part of the Swedish system for continuing vocational training in 2002 (Lindell and Johansson, 2003). In comparison, with other VET reforms, AVE is medium-sized in terms of volume. In table II below, an overview of available programmes distributed within the twelve different industry sectors reflecting the
diversity within the labour market and the number of students for the education year is provided.

Table II. Number of AVE programmes and education places divided into industry sectors of the labour market in year 2002.

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>Number of programmes</th>
<th>%</th>
<th>Education places</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>16</td>
<td>6.0</td>
<td>1691</td>
<td>6.7</td>
</tr>
<tr>
<td>Economics</td>
<td>28</td>
<td>10.5</td>
<td>2863</td>
<td>11.3</td>
</tr>
<tr>
<td>Information technology</td>
<td>84</td>
<td>31.6</td>
<td>8756</td>
<td>34.7</td>
</tr>
<tr>
<td>Agriculture &amp; Forestry</td>
<td>6</td>
<td>2.2</td>
<td>458</td>
<td>1.8</td>
</tr>
<tr>
<td>Food industry</td>
<td>3</td>
<td>1.1</td>
<td>202</td>
<td>0.8</td>
</tr>
<tr>
<td>Environment</td>
<td>5</td>
<td>1.8</td>
<td>530</td>
<td>2.1</td>
</tr>
<tr>
<td>Transport</td>
<td>11</td>
<td>4.1</td>
<td>1148</td>
<td>4.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>53</td>
<td>20.0</td>
<td>4296</td>
<td>17.0</td>
</tr>
<tr>
<td>Wood industry</td>
<td>5</td>
<td>1.8</td>
<td>312</td>
<td>1.2</td>
</tr>
<tr>
<td>Tourism</td>
<td>23</td>
<td>8.6</td>
<td>2355</td>
<td>9.3</td>
</tr>
<tr>
<td>Health care</td>
<td>17</td>
<td>6.4</td>
<td>1261</td>
<td>5.0</td>
</tr>
<tr>
<td>Other*</td>
<td>14</td>
<td>5.2</td>
<td>1341</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>265</strong></td>
<td><strong>100.0</strong></td>
<td><strong>25 213</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

* Miscellaneous programmes with educational focus on media and specialised craftwork.

As depicted in table II, there are two industrial sectors, namely information technology and manufacturing that together comprise more than 50% of the AVE programmes available. In comparison there are also small sectors, for example wood and food industry, that only constitute about 1% of programme supply (NAAVE, 2002).

**Designing workplace learning within AVE**

The very heart of AVE reform is the strong emphasis on learning at work. The decision that one-third of each AVE programme is to be dedicated to work-based learning was made in order to ensure that programmes are both practical as well as based on theoretical knowledge. This means that the courses are not organised as a traditional traineeship period, but rather to revolve around work-based learning and problem solving in an overall educational context. One requirement of the course providers is that the workplace itself be organised to make learning possible. Although the aim of training is to impart familiarity with an occupation or vocational area, the training is required to be more general than, for example, in-service training also provided by companies. Moreover, during the work-based learning, students are encouraged to apply a systemic perspective, to train and enhance their analytical capabilities, to apply a holistic approach towards their future profession, learn how to take responsibility for their work, and finally tune their capability to co-operate with other people in teams. According to the proposal, a detailed plan of how these aims were to be fulfilled was required to be enclosed with every application. Moreover, the policy documents required that work-based learning should not only be designed to suffice notions with the trade in question, but also to lay the foundation for continuing training throughout an individuals' active working life.

Achieving these rather high demands of work-based learning, the government in their policy documents also detailed how co-operation between educators and enterprises would be organised. First, it was decided that every AVE programme should have a local committee in charge of operative and strategic questions. Secondly, it was decided that local committees should comprise representatives from educator and working life. In the latter case, both representatives of trade unions and employer associations were assumed to participate. In the
former case of educators both management as well as teachers were required to participate, thus forming a broad representative board with equal measurements to exert power and responsibility, while at the same time compensate for regional and industrial characteristics and expertise (Proposal 1995/96:145).

Results of implementing workplace learning in AVE

From the national evaluation study (SOU, 1999a), the research team, of which the Swedish author was a member, found that when initiating an AVE programme, the planning process usually starts with the regional or local industry identifying a need for specific knowledge and skills. In the next step, business approaches local educators, enquiring whether they have the possibility to provide a certain number of courses with specified content. According to the government detailed plan of how a local programme board should operate, educators and enterprises thereafter engage in appointing the representatives. Based on the findings, the enterprise with support of their employer associations typically supplies the background labour market demand analysis, and through their internal networks, assure the supply of a workplace for learning while educators provide the educational contents and the matching curriculum (SOU, 1999a). The parliamentary committee that also investigated the pilot project with AVE corroborates these findings to confirm that the very meeting of these two groups has resulted in positive synergies. In particular, the committee emphasises the necessity of bringing top management into the boards, functioning as ‘door openers’ towards the middle-level management in enterprises. At the same time, the board should be fairly balanced ensuring that programmes are not developed solely from a narrowed, short-term demand analysis, but also focus on general skills safeguarding individual’s transferability from one occupation to another (SOU, 1999b).

In terms of developing workplace learning models, four ‘ideal’ types could be identified. These were: trainee, project, apprenticeship and adoption. The most common form of work-based learning was organised as a traditional trainee period. Students were supposed to put their theoretical knowledge into practice. Usually the students started with single sub-operations and gradually advanced to work as a full time employee. Another common way of organizing work-based learning was in the form of a work-based project. For example, the students could develop a market plan or design web pages for a company. Using this form the students developed their ability to plan and coordinate their own work, often in cooperation with other students and company staff.

A third form, used only in a few craft or trade courses, was the traditional apprenticeship. Under supervision of an experienced tutor the students practiced the trade and assimilated its traditions. What the students actually learn depends on the tutor and on what kind of production is available during that period. Finally, a few courses focused on entrepreneurship and self-employment used what we describe as adoption. The AVE students were adopted by a group of companies and together students, teachers and company representatives planned different types of work-based learning related to the needs of the individual students (SOU, 1999b).

Analysing the implications of workplace learning from an employer perspective, the Swedish Federation of Private Enterprises (PEF) performed a large scale investigation in 2001, surveying approximately 4 900 enterprises on their experiences working together with the Swedish educational system. As the results indicate, approximately one third (33%) of the surveyed enterprises had co-operated in some sense. In that study, the results indicate that the reform of AVE was the type of education that to the largest extent had generated fruitful collaborative actions. According to the study, about 38% of the surveyed enterprises had co-operated within the AVE framework. In comparison, the proportion of enterprises that had co-
operated with university colleges amounted to about 30%. In addition, the investigation shows that only 17% of the surveyed enterprises had worked together with universities. Of the enterprises that worked within AVE, most of these were within construction industry, followed by transport- and communications services (FPE, 2001).

The Finnish reform of polytechnics

The Finnish polytechnics have been developed using an experimental method. The aim of the experiments was to gain experience that could be used later in building a permanent system, and the temporary polytechnics were given the chance of eventually gaining permanent status. As with the case of Swedish AVE, various stakeholders of vocational education and training have played an important role in the formulation process. According to Räty (1998), there were seven important stakeholder groups: politicians; employer and employee organisations; the association of municipalities; publishing houses and writers of curriculum support materials; principals and teachers; the media; heads of general secondary education schools (Räty, 1998). Although the Finnish polytechnic reform has been a national project, the formulation of the reform was clearly influenced by the Dutch (HBO) and German institutions (Fachhochschule) (Salminen, 2001).

Launching the reform 31 polytechnics were formed out of 215 older institutes, most of them were multidisciplinary. In the process about 80% of the volume of education provided by the old post-secondary vocational schools and institutes was raised to a standard high enough to qualify for admission into the Polytechnic system. Since August 2000, all Finnish polytechnics have been permanent (Lampinen, 1995; Ministry of Education, 2003).

Organisational structure within Polytechnics

The goals of the reform were to promote regional development and meet regional needs for higher education. Both national and local forces guided the polytechnic network. The participants of the network are the cities, the municipalities and joint municipal boards, the provinces, the regional councils, and other regional organisations. The polytechnics have section advisory committees. These formal bodies are composed of representatives of working life. Their task is to deliver ideas of enterprises for planning and developing polytechnic education and to improve a co-operation between education and working life. The advisory committees address issues related to curricula, arrangement of teaching, and other co-operation efforts with business (Ministry of Education, 2002.).

The polytechnics grant bachelor level degrees, comprising 140 to 180 points (3.5 - 4.5 years of full-time studies). All polytechnic degree programmes consist of practical training and diploma work. The frame of degree programmes is governed by the legislation. Each institution is free to define its own degree programmes, which consists of basic studies, professional studies, optional studies, practical training and a diploma project. The practical training is usually 20 points, 30 points in the social welfare sector, 50 points in health care, and a diploma project that usually comprises 10 points of length.

Educational programmes provided by the polytechnics fall into seven main sectors as seen in table III below. The largest is Technology and Communications where first-year places in 2001 accounted for about one-third of the approximately 126 000 students that encompassing the reform per annum. The rest of the sectors are as follows: Business and Administration 27%; Health Care and Social Services 20%; Culture 7%; Tourism, Catering, and Institutional Management 6%; Natural Resources 3%; and Humanities and Education 2% (Ministry of Education, 2001).
### Table III. Number of programmes and students within Polytechnics in year 2001

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>Number of programmes</th>
<th>%</th>
<th>All students</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural resources</td>
<td>17</td>
<td>12.0</td>
<td>4,316</td>
<td>3.4</td>
</tr>
<tr>
<td>Technology &amp; Communication</td>
<td>24</td>
<td>16.9</td>
<td>42,208</td>
<td>33.4</td>
</tr>
<tr>
<td>Business &amp; Administration</td>
<td>25</td>
<td>17.6</td>
<td>35,131</td>
<td>27.8</td>
</tr>
<tr>
<td>Tourism, Catering &amp; Institutional management</td>
<td>21</td>
<td>14.8</td>
<td>7,808</td>
<td>6.2</td>
</tr>
<tr>
<td>Health care &amp; Social services</td>
<td>24</td>
<td>16.9</td>
<td>25,134</td>
<td>19.9</td>
</tr>
<tr>
<td>Culture</td>
<td>23</td>
<td>16.2</td>
<td>9,126</td>
<td>7.2</td>
</tr>
<tr>
<td>Humanities &amp; Education</td>
<td>8</td>
<td>5.6</td>
<td>2,634</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100.0</td>
<td>126,357</td>
<td>100.0</td>
</tr>
</tbody>
</table>


### Designing workplace learning within Polytechnics

The guiding principle of workplace learning within the polytechnic education is to ensure that the students have possibilities during their studies to transfer theory into practice and possibilities to test the level and usability of their know-how. This will take place, for example, through different collaboration projects with working life, through exercises and theses and during practical training (Ministry of Education, 2002).

The purpose of practical training is to further increase the students’ learning outcomes, their possibilities to acquire a job and promote their careers (Ministry of Education, 2002). Furthermore, the purpose is to raise the skill level of students and generate transfer between the institute and the enterprise, since both parties can benefit from the mutual know-how, methods and co-operation. Moreover, practical training together with theoretical studies aims at the growth of professional expertise during studies.

Contrastingly, students’ diploma projects aim to develop working life, apply practical knowledge and meet the needs of working life (Ministry of Education, 2002). A successful diploma project is perceived to help enterprises in their research and development (hereafter R & D) activities which includes decision making, and improving their competitiveness. Besides the mere scientific part, the on-the-job training offers students an opportunity to work independently and in teams, and to apply their newly won theoretical knowledge. From a learning perspective, the concept of diploma projects can be considered on the basis of experimental learning, project learning, problem-based learning and co-operational learning, i.e. students become acquainted with the occupational practices in their own field and make useful contacts with working life.

### Results of workplace learning within Polytechnics

At the outset, the reform of polytechnics appears to have increased co-operation between the worlds of vocational education and working life at various levels of organisational complexity. In particular, the concept of R & D appears to be one of the main areas in focus developing workplace learning. These core elements have certain characteristics since R & D in this educational context is mainly based on the stated needs of working life and not as an end in itself (Ministry of Education, 2002; Laakso-Manninen, 2002). Examining these characteristics, Laakso-Manninen (2002) has found four essential features, which describe the R & D activities at the Finnish polytechnics. These features are: 1) apply and develop approach; 2) tailor in accordance with customers’ needs; 3) pursue regional influence; and 4) connect the R & D to tuition (Laakso-Manninen, 2002). Facilitating these features, every polytechnic has prepared its own strategy for R & D (Malm, 2002) where the objectives are primarily aimed towards regional support for industrial SME’s and service production.
While R & D is said to be a rapidly developing field at polytechnics, the institutes do not really have a well-founded tradition in this field but are still learning, which leaves much room for organisational ‘trial-and-error’. This is evident in monitoring, quality control and funding, which among others areas, are not yet fully established (Ministry of Education, 2002). A report of the Finnish Higher Education Evaluation Council (Impiö et al., 2003) indicates that at some polytechnics the regional impact means almost exclusively strengthening the regional know-how through the traditional educational task. Many polytechnics have also invested in R & D and in the supply of services, but rarely are all educational sectors of a polytechnic represented (Impiö et al., 2003).

Pirkko Vesterinen (2001) studied project-based studying and learning at the Jyväskylä Polytechnic which worked in co-operation with SMEs and health care organisations. The aim of the project was to develop the occupational health care system and promote the well-being of the employees of the SMEs. The research results indicated that since the project was a development project, the students were more tightly connected to the work community than during normal learning such as practical training. On the other hand, this development and learning project created pressure in work communities, because it required the commitment of the companies (Vesterinen, 2001).

Marja-Liisa Vesterinen (2002) implemented an empirical development project of practical training at the South Carelia Polytechnic in 2000-2002. The results indicated that informal learning at work improved the level of students’ professional expertise both qualitatively and quantitatively. According to Vesterinen (2002) a more informal curriculum increased the interaction between polytechnics and working life and added information exchange and mutual learning. On the basis of learning outcomes, it can be stated that the learning outcomes of the practising period increase the students’ quality and quantity of knowledge and skills.

The follow-up study of the Finnish polytechnic graduates (Korhonen, Mäkinen & Valkonen, 1999; 2000; 2001; Virolainen & Valkonen, 2002) revealed that learning at work gave them a wide range of skills and good potential for finding jobs. Especially, they thought that joint projects, practical training and diploma projects between the polytechnics and local business and industry contributed to their transition to working life after graduation. The study also indicated that the guided practical training improved working skills more than temporary working while studying. Although student assessment of the qualification for working life is positive, the findings also indicated that some polytechnic graduates were also quite critical of the co-operation between polytechnics and working life. Hence there is a challenge for the polytechnics to improve working life connections, which also means developing the pedagogy. The quality of practical training can be seen as a test for the special identity of the polytechnics in the Finnish educational system, because professional expertise develops continuously through activities in working life (Bereiter and Scardamalia, 1993; Eraut, 1994).
Conclusions

This study has explored the recently established higher vocational education reforms with Swedish AVE and Finnish polytechnics with regard to their intentional and actual design of workplace learning, and what kind of practical implications these new models of training have resulted in from an international perspective.

In answer to the first research question as to what the formal differences in terms of designing and organising workplace learning are, the results indicate similarities as well as differences. On an organisational level, the two VET reforms appear to be designed in a similar manner where a range of the course programmes are dedicated to active learning at a workplace. One difference is that while course length within AVE programmes is approximately one-third of the programme length with the possibility of adjustment depending on industry’s production cycles, the equivalent length of training within polytechnics is quite fixed depending on the educational sector. Secondly, while single course providers and employers in AVE were left with a high degree of freedom allocating the training periods within the course programmes, polytechnics have two training forms with different focus, categorised in practical training and diploma projects. The latter is focusing on research & development (R&D).

From a community level, the main difference is that AVE programmes in comparison to polytechnics are not integrated within higher education or within any fixed institutional body for that matter. Instead AVE programmes are provided by an educational ‘patchwork’ body including higher education, upper secondary schools, municipal adult education and private training companies, depending on the specific competences required or geographical location. Another clear difference is that within polytechnics, an outspoken goal is to facilitate mutual transfer of knowledge between educational institutions and enterprises, a strategy that is not verbalised in the Swedish context.

On the second research question concerning how workplace learning is implemented and practically arranged involving educators and enterprises, the result reveals important structural differences between the two reforms. From a community level, the Swedish strategy of establishing local committees for every AVE programme whereby facilitating a neutral ‘meeting spot’ between representatives of education and working life appears to be an important finding. The emergence of a ‘meeting spot’ is particularly significant because within the Swedish context, the schools and representatives of worlds of work have mainly been separated from each other for a long time with the introduction of the national integrated educational system and the exclusion of the trade schools in the late 1960s. Furthermore, as the empirical results suggest, the ability of ‘fine-tuning’ the design of workplace learning according to local and regional enterprises’ needs appears to have improved the relationship between the two worlds, which is also indicated in the survey results by the Swedish Federation of Private Enterprises (FPE, 2001). Overall, the Swedish result strengthens the Australian findings which claim down-scaling and trust to be one of the fundamentals factors of building a successful partnership (Bateman and Clayton, 2002).

From an organisational level, the overall flexibility within AVE also seems to affect development of workplace learning models in the ‘field’. As the findings suggest, four different types appear to be in use: trainee, project, apprenticeship and adoption, which is not surprising as representatives were allowed a large degree of freedom from the start (SOU, 1999a). From an analytical point of view, the originality and variations of the models inhibit a clear-cut categorisation as they in sum surpass the explanatory models as described by Evans and Rainbird (2002). Hence, from a workplace learning theory perspective, this central part of AVE could better be analysed as a national form of ‘situated learning’ as developed by Lave and Wenger (1991) and Wenger (1998). The purpose of students spending several weeks and
sometimes even months at a workplace within an enterprise is not only for testing and improving their practical skills, abilities and theoretical knowledge under real circumstances. Equally important, in sharing everyday practices with the supervisor and others learning the informal rules, values and ethics connected with the vocation the students are intended to become socialised into the profession, and thus mainstream members of the workforce in a manner that simply cannot be taught by school-based training only – a pedagogical idea corresponding well to the Lave and Wenger’s perspective on how the relations of legitimate peripheral relations and communities of practice underpin learning and identity formation (Lave and Wenger, 1991; Wenger, 1998). This latter model also links well into what Eraut (2002) describes as mutual enhancement through integrated learning, since the training within AVE involves deep, critical and systematic thinking of everyday experiences and day-to-day practices guided partially by teachers and partially by mentors at the workplace.

As with AVE, the Finnish reform of polytechnics is slightly difficult to grasp at this point as it is still to establish routines regarding partnership with working life (Ministry of Education, 2002) Nevertheless, as the available data reveals, on a community level of analysis, the forms of collaborative work that exist range from intermittent contacts of a casual nature to longer joint international projects where physical and mental resources are mutually exchanged. However, even though there are industrial and geographical variations to consider here, it would be fair to say that in overall these partnerships appears to be somewhat conditioned by the polytechnics’ curriculum and internal strategies, and not so much guided upon market-driven requirements. Even with the existence of so-called ‘advisory committees’, partnership & co-operation within polytechnics appears, from the data available, to be more hierarchically implemented and of educational-driven agenda which, as suggested by Bateman and Clayton (2002) could jeopardise more concentrated co-operation. One-way directed strategies of forming partnerships could imply unclear roles and lack of understanding of the deeper social mechanisms that are needed to avoid inertia and later break-down (Keep and Payne, 2002).

From an organisational level then, the actual implementation of workplace learning within polytechnics appears, as with AVE, to be of multiple arts depending much on geographical location. In sum, it appears that experimental learning and transfer of knowledge are two crucial factors that guide the fieldwork, which is in line with the fourth model of access to continuing non-formal learning, as proposed by Evans and Rainbird (2002), which also encapsulates Eraut’s conceptualisation of transfer of knowledge, and recognition of prior knowledge in current workplace situations (Eraut, 2002). Overall, the main aims of workplace learning appears to be assisting enterprises improve the organisation, trouble-shooting or other more managerial tasks, rather than participating within the daily practices, as with the case of AVE. However, it is very important to stress that since this study is aimed to focus on the institutional framework of the reforms, not analysing the patterns of participants social, ethnical or gender background delimits the possibility for presenting evidence of how the reforms actually support or render individuals access to and equity within workplace learning. Hence, questions such as how students view their workplace and whether they become accepted by employers remain to be answered.

Finally, on the third and rather extensive question of what implications and lessons for bridging policy and practices in structuring workplace learning in higher vocational education could be learned, the results of this study suggest several. From a community level perspective, perhaps the most obvious one is that with AVE, through the national process of decentralisation, Swedish industry and commerce has (re)gained influence on the design and implementation of workplace learning in the same fashion as described by Sauter (1999) and Curtain (2000). In a broader context, this development coincides rather well with the latest years of economical development where labour markets across the world are becoming ever
more flexible and harder to predict in terms of skills and competences required, as suggested by Garrick and Jakupec (2000).

The developments that occur in Sweden that are also seen in Australia, Canada, England, Finland and United States just to mention a few nations, are certainly not free from social and cultural controversies. As suggested by Fenwick and Lange (1998) and Fenwick (2001) and Jakupec (2000), the risk of leaving initiative for learning to the responsibility of employers alone, could very well steer the concept of learning away from its original intent as a tool for developing democracy and citizenship at the workplaces, into a tool for moulding employees’ thoughts into a streamlined, corporate spirit.

In the case of Finnish polytechnics, the situation is somewhat different, in that initiatives tend to be more centralised with polytechnics being in charge of developing degree programmes on a regional basis. From that conclusion, the initiatives for developing workplace learning within polytechnics are addressed more to the educational sphere, than working life as in Sweden. This finding also appears to be the case when comparing the actual models in use within the two reforms. Whereas in Sweden and AVE, multiple models of workplace learning are often accepted since the responsibility lies within local partnerships, which by tradition have developed pragmatic routines to negotiate various industrial relations issues where trust and mutual mindsets are essential ‘lubricants’. In Finland, the models of practical training and diploma projects tend to be rather formalised under the supervision and control of regional polytechnics. In conclusion, when exploring the national implications of the two strategies used for provision of tertiary VET, it appears that the ultimate purpose of AVE is foremost to fill up short term needs of local and regional working life, whereas the purpose of polytechnics, is of a more long-term character, focusing on future needs. These structural differences of tertiary VET shown in this study strengthen the hypothesis by Ashton (2004) that the range and scope of workplace learning are ultimately not at the hands of global capitalism alone, but increasingly decided by the complex relationship and constant dialogue between the State, labour & capital and the prevailing production system of each society.
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Meeting the Demand? Students within Swedish Advanced Vocational Education Entering the Labour Market: reflections from an ongoing research project

Meeting the Demand? Students within Swedish Advanced Vocational Education Entering the Labour Market: reflections from an ongoing research project

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ABSTRACT This article considers an ongoing research project concerning the outcome of the Swedish reform of advanced vocational education (AVE) from a graduate perspective. Launched in 1996 as an experimental post-secondary reform meeting the advancements within working life, several new educational features were introduced. In January 2002, AVE became a regular part of the national education system with 12,500 education places per annum. From start to present, over 6,100 students have graduated from the approximately 350 different national AVE programmes available. The purpose of this article is to present results from three sets of questionnaires collected in 1999, 2000 and 2001 surveying over 5,400 of the graduates concerning their opinions and experiences on how AVE corresponds to the demands and requests made of them when entering the labour market. The aggregate results suggest that a majority of the graduates (82%) had a job 6 months after having completed their AVE programmes and that approximately 80% of them were working, with regard to their educational focus, within a ‘target’ field of profession.

Introduction
The ongoing restructuring of labour markets and significant changes in occupational structures and skill requirements (Callaghan, 1997; Thompson & Warhurst, 1998; Ransome, 1999) have in turn strongly challenged the design and performance of systems of vocational education and training (VET) in Europe and elsewhere (Hodkinson & Unwin, 2002; Lassnigg, 2001; Lindell, 2001). In the search for organisational models improving provision, attention is not merely focusing on such economic output aspects as how VET can develop the competitiveness and financial growth of companies, but is also analysing how VET as a system can enhance democratic values and social
integration (van Wieringen & Attwell, 1999; Tessaring, 1998). Further, substantial concern is also being paid to how VET can affect unemployment and facilitate transition between education and the labour market for individuals. Due to restructuring processes, with employment in manufacturing industries generally declining while employment in the service sector increases, there has been a trend towards a dramatic downtrend in the demand for unskilled labour, making labour market entry much more difficult, especially for young people with little or no prior work life experience (Furlong & Cartmel, 1997). As Beck (1992) concludes, in the modern labour market, employment contexts are increasingly differentiated and, with increased competition for jobs, individual academic and vocational performance has become a prerequisite for economic survival (Beck, 1992).

From a Swedish perspective, the developments during the 1990s have been very similar, whereby an accumulated need for upgrading both formal qualifications (Swedish National Industry Board, 1992; SOU, 1992) as well as specialist knowledge for the continued advancement within working life (Swedish Employers’ Confederation, 1994) have coincided with an extensive economic recession causing very high rates of unemployment (SOU, 1993). Together, these developments suggested that the VET system swiftly needed to be reformed (SOU, 1995).

**Introducing Advanced Vocational Education**

In response, the Swedish Government launched in 1996 a new form of tertiary vocational education: Advanced Vocational Education (AVE). Starting as an experimental pilot project, one of the main purposes of AVE was to meet the continually changing demands from industry and commerce for skilled labour. A second reason was to counteract unemployment, especially among young people. A third reason was to investigate the interest of students and workers in this type of higher vocational education (National Agency for Advanced Vocational Education, 2002) as the education system in Sweden expanded. Including private training companies, there are today in Sweden a number of different pathways providing entry to the labour market besides the universities.

With AVE, several, and in relation to VET in Sweden, new educational features were introduced. First, not having the tradition of apprenticeship, AVE requires that one-third of the course programme time, which ranges between 1 to 3 years in length, is devoted to advanced application of theoretical knowledge outside school at a company or organisation under the supervision and guidance of an experienced worker. This is required by law (Swedish Codes of Statutes, 2001, p. 239). From a learning theory perspective, this central part of AVE could be seen as an example of ‘situated learning’ as developed by Lave & Wenger (1991) and Wenger (1998). The purpose of students spending several weeks, and sometimes even months, at a workplace is not only for testing and improving their practical skills, abilities and
theoretical knowledge under real circumstances. Equally important, in sharing everyday practices with the supervisor and others learning the informal rules, values and ethics connected with the vocation, the students are intended to become socialised into the profession, and thus become mainstream members of the workforce in a manner that simply cannot be taught by school-based training only – a pedagogical idea corresponding well to Lave and Wenger’s perspective on how the relations of legitimate peripheral participation and communities of practice underpin learning and identity formation (Lave & Wenger, 1991; Wenger, 1998).

Second, in order to secure that programmes correspond to the actual needs of industry and commerce, the content and curriculum of AVE programmes are not considered at state level but are designed and implemented at regional or community level between education providers and enterprises in close cooperation. The final decision to start a new programme rests, however, with the National Authority of Advanced Vocational Education (NAAVE); besides assessing applications, monitoring and evaluating the quality of the programmes, it also grants financial support. Graduates are expected to work as skilled craftsmen and experts and to some extent function as middle-range managers.

Third, every AVE programme may only run for a maximum of five times, whereafter its effect on the local and regional labour market is required to be evaluated by the NAAVE. If the demand appears to be fulfilled, the AVE programme is terminated.

Fourth, although when designing AVE and, in particular, the curricula combining elements of theoretical and workplace-based knowledge, there was reference to the reforms of Berufsakademie in Germany and the Polytechnic institutions in Finland, AVE also differentiates from these in several significant ways. The main differences are that AVE programmes, in comparison with the polytechnics (Lampinen, 1995; Stenström, 1995), are not integrated within higher education or within any fixed institutional body for that matter. AVE programmes are instead provided within a variety of educational settings, i.e. higher education, upper secondary schools, municipal adult education and private training companies, depending on the specific competences required or geographical location. Further, it is not unusual for different educationists to cooperate in bringing certain expertise together. For example, while a private training company can be in formal charge of a programme, it can in turn outsource the theoretical knowledge content to a university providing some lectures and examinations. Moreover, the AVE programme is also shorter in terms of course length, with an average of 80 points of credit or 2 years of full-time studies, while course programmes within polytechnics take between 3.5 to 4.5 years of full-time study to complete (Finnish Ministry of Education, 2002). Additionally, no professional degrees requiring national standards of certificate, e.g. for nurses, economists and civil engineers, are issued within AVE (as is the case with polytechnics); in Sweden, professional degrees are provided by the universities only (Abrahamsson, 1999).
From January 2002, AVE became a regular part of the Swedish national education system. The volume has grown considerably from 1,700 education places in 1996 to 12,500 at present, distributed among the approximately 350 different AVE programmes available within 12 different industry branches reflecting the labour market. The expenditure for AVE is estimated at approximately 700 million Swedish kronor (~77 million) per annum (NAAVE, 2002).

Scope and Perspective
From start to present, AVE has empowered about 21,000 students, of who over 6,100 have graduated and made the transition into the labour market (NAAVE, 2002). This article [1] considers an ongoing research project [2] regarding the outcome of AVE from a graduate perspective. Its purpose is to present results from three sets of questionnaires collected in 1999, 2000 and 2001 surveying over 5,400 of the graduates concerning their opinions and experiences of how AVE corresponds to the demands and requests made of them when entering the labour market. Before presenting the results, a theoretical framework focusing on the challenges of linking VET and the labour market needs is first provided.

Challenges Linking VET and Labour Market Needs
Linking VET systems and labour market needs can be seen from many different aspects. Perhaps the most prominent area where links are of special interest and debate at the moment is development of curriculum content, since it has implications both in terms of the effects of transitions and for the socio-economic returns of training.

Developing Curriculum Content
Around Europe, there is an ongoing debate as to whether students should be trained for initial employment or whether VET should focus rather on more advanced knowledge and skills aiming for future career development (van Wieringen & Attwell, 1999). Initial training to enter an occupation calls for basic knowledge specifically related to that occupation, while education for life calls for the inculcation of more general and broader skills which as postulated will enable the individual easily to absorb new knowledge at a later stage in life.

Clearly, the decision as to how the curriculum should be designed will cause different transition effects. Theoretically, the first type of training will generally be associated with a smooth transition from education to work but will perhaps lead to problems if unforeseen developments occur in the future. One such example could be increasing skill requirements. The second more advanced type of training is likely to be associated with a more difficult...
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transition from education to work due to the generic skills provided. However, it is assumed that the individual with a generic type of skills will better cope with unexpected events in the future, a proposal gathering a fairly broad consensus of opinion as an obvious development, not least because knowledge is being superseded at an increasingly rapid rate (van Wieringen & Attwell, 1999).

Socio-economic Return of Training

The debate on how to best model VET systems with labour markets and achieving efficient linking—whether by offering vocational-specific or generic-oriented training programmes—also has implications from a socio-economic perspective, with individuals and employers increasingly wanting information about the returns on their investment in training.

From the theoretical underpinnings of educational attainment and economic outcomes, VET systems have a history of being regarded with scepticism and also being criticised by economists, particularly those from a neo-classical tradition. Neo-classical economists argue (Monk, 2000) that the argument for rejecting VET as the hope of economic growth lies mainly in the basic principles of how VET is traditionally organised in comparison to how the labour market functions.

From the neo-classical perspective, the labour market is dynamic and very hard to predict. This implies that the principle of educating the appropriate numbers of students with the right mixture of skills, ready to enter labour market in ways that bring supply into balance with demand, will often fail. Thus, the core argument suggested by proponents of neo-classical economics theory is to recognise the inability of society to anticipate long-term labour market needs, and hence not to sequence highly focused educational activities towards those anticipated needs, as commonly are the main target with VET (Monk, 2000).

Instead, neo-classical oriented economists, notably proponents of human capital theory, emphasise types of education which are more broadly instrumental in promoting versatility and resilience, hence enabling students to move from job to job. As a result of this kind of thinking, the human capital economists tend to see academic forms of education as the better hope of economic growth (Becker, 1964/1983).

The empirical literature and much of the research, particularly in the United States, supports the neo-classical argument. According to these studies (Monk, 2000), VET tends to be more costly than more academic-oriented education. The findings also suggest that students who receive a vocational education do enjoy more modest economical and social returns, considering both costs and streams of social benefits, than do students who receive a more academic education. The findings are, however, ambiguous, with respect to how the rates of return are conducted in the education sector from a methodological point. For one thing, when comparing different forms of
education, failure to isolate perfectly the 'ability adjustment' when 'more able' students are attracted into one type of education compared with another – thus leading to social biases – implies a danger that some of the returns could be wrongly attributed to the type of education rather than to the type of student (Monk, 2000). Second, as Barrett (2001) points out, most of the studies on how extra years of schooling pay off do not consider that there is a range of intangible benefits other than wage increases, such as job satisfaction, and, by not including them in the calculation, do not measure 'return' according to a strict definition (Barrett, 2001).

**Linking VET and Labour Market: proposals for strategies**

Based on the empirical findings, three strategies on how to organise and improve the economical rate of return with VET are suggested (Monk, 2000). First, because it will probably become even more difficult to anticipate labour market skills in the future, vocational education must be connected to the real world outside classrooms. Second, since the labour markets are fluid, the VET systems must continue to evolve and thereby provide students with the skills they will need to take the next steps in their careers, an idea which fits rather well with the European debate on curriculum content (van Wieringen & Attwell, 1999). The American findings suggest the importance of opening up and introducing elements of both academic and vocational curricula into a common course. Third, there is, according to Monk, a need to develop an appreciation for learning and to boost the self-confidence of the students in becoming lifelong learners. This last strategy is supported by European research findings. For example, Woodhall (1997) suggests that the definition of investments in human capital needs to be broadened to include personal attributes as well. The reason why employers tend to prefer educated workers is not only that education indicates that an individual has certain abilities, aptitudes and attitudes but that the educational process itself helps to stimulate and develop those attributes (Woodhall, 1997).

**Research Methodology and Procedures**

From start, AVE has been subject to several national research studies (Lindell & Svensson, 2002; SOU, 1999a). In one of the most extensive [3], a research team from Luleå University of Technology (including the authors of this article) concluded that AVE had been rather successful in recruiting students, opening up companies for workplace-based learning and enabling students to find jobs after graduation. The conclusions that we could draw of the latter result was, however, cautious due to the small sample of graduates (n=1,124) available at that time (SOU, 1999b).
Aims and Research Questions

The aim of this study was to continue where the research team stopped in 1999, surveying the opinions and experiences of students graduating in 2000 and 2001, and considering to what extent the AVE programmes are corresponding to the demands and needs put on the students when entering the labour market. Moreover, the aim was also to see whether graduates' opinions about AVE had changed or remained constant over the years since this study incorporates and compares the results with the first investigation performed in 1999 (SOU, 1999b).

This article addresses the following research questions:

- How many of the AVE students graduating between 1999 and 2001 have jobs and how many are still unemployed?
- To what extent do AVE graduates work, according to their own perception, within a field or profession that corresponds to their educational training?
- To what extent do the graduates perceive that the skills and competences provided by their AVE programme are relevant in their present job?
- To what extent do the graduates perceive that their AVE programme has rewarded them with a more qualified work assignment?
- To what extent do the graduates perceive that their AVE programme has led to a salary increase?

Research Procedures

Both primary and secondary data were used to analyse results from student questionnaires repeated in three different investigations. The questionnaire itself was designed by the research team at Luleå University of Technology (LUT) as part of the national evaluation study (SOU, 1999b) comprising 16 questions (items) with fixed answers: 'Yes', 'No' and 'Uncertain'. In order to facilitate time-series analysis, the items included remained identical throughout all three investigations.

All three investigations were administered by Statistics Sweden with the following procedure: first, finding the population, the authority used the national register covering all students within AVE. Second, creating an appropriate sample frame, the criterion used was that graduates had to have completed their AVE programme at least 6 months prior to the time of the investigation, hence giving them enough time to establish themselves in the labour market. Third, the sample frame of matching graduates was then coordinated with the National Register of Swedish Citizens, getting the graduates' current home addresses.

The questionnaires were distributed by surface mail to the graduates. With the questionnaire was a letter explaining the purpose of the investigation, instructions and reply envelope. A first letter of reminder was sent out 2 weeks afterwards. A second letter of reminder was distributed
shortly after that. In addition, those who after the second letter had not yet answered the questionnaire, received telephone calls from Statistics Sweden, urging them to answer the questionnaire in telephone interviews instead. Besides primary data, in terms of the items asked, secondary data, in the form of background information regarding the graduates, the programmes and education providers, were also gathered.

The first investigation (1999) began in February 1999 and was completed in May of the same year. The population consisted of 1,291 students. Of these, a total of 1,124 students answered the questions, thus giving an answer percentage of 87%. The number of non-responses was 13% or 167 people.

The second investigation (2000) was performed between January and March 2000. The population amounted to 1,499 persons. Of these, 1,362 people answered the questions, which gave an answer percentage of 90.8%. The number of non-responses came to 9.2% or 137 people.

The third study (2001) of students within AVE was carried out between 11 September and 30 November 2001. This time, the population amounted to 3,321 people. Of these, a total of 2,952 people answered the questionnaire, thus giving an answer percentage close to 89% (88.8). The non-responses totalled 12.2% or 369 people.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Non-responses</th>
<th>Answered</th>
<th>Answer percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>1,291</td>
<td>167</td>
<td>1,124</td>
<td>87.0</td>
</tr>
<tr>
<td>2000</td>
<td>1,499</td>
<td>137</td>
<td>1,362</td>
<td>90.8</td>
</tr>
<tr>
<td>2001</td>
<td>3,321</td>
<td>369</td>
<td>2,952</td>
<td>88.8</td>
</tr>
<tr>
<td>Sum total</td>
<td>6,111</td>
<td>673</td>
<td>5,438</td>
<td>89.0</td>
</tr>
</tbody>
</table>

Table I. Size of subject group, non-responses and answer percentage.
(Source: Statistics Sweden & LUT 2002.)

Taken together, as Table I shows, the total population of graduates for this study amounted to 6,111 people. Of these, a total of 5,438 persons answered the questionnaires, giving a response rate of 89%. The total of non-responses amounted to 11% or 673 persons.

Controls verifying the validity of the data were made by the authority during the procedures of sampling and collecting data. It is also important to note that all individual information had previously been removed from the raw data delivered to the authors, hence nullifying any attempts to identify individuals.

Demographic Features of the Target Group

An important aim with the introduction of AVE was also to break traditional patterns of gender stereotypes in choosing a profession. Therefore, it is
interesting to see how the sample of graduates is distributed between men and women.

The aggregated result shows that there differed only a tenth of a per cent between men (50.1%) and women (49.9%) among the graduates. However, the picture of gender equality changes when the results are broken down and distributed by the graduates' choice of educational focus and divided into the 12 different industry branches of AVE, as shown in Table II.

<table>
<thead>
<tr>
<th>Industry branch</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>Sum total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number (w)</td>
<td>%</td>
<td>Number (w)</td>
<td>%</td>
</tr>
<tr>
<td>Construction</td>
<td>35 (5)</td>
<td>3.1</td>
<td>76 (10)</td>
<td>5.6</td>
</tr>
<tr>
<td>Economics</td>
<td>221 (125)</td>
<td>19.7</td>
<td>173 (111)</td>
<td>12.7</td>
</tr>
<tr>
<td>IT</td>
<td>183 (62)</td>
<td>16.3</td>
<td>343 (146)</td>
<td>25.2</td>
</tr>
<tr>
<td>Agriculture &amp; forestry</td>
<td>70 (7)</td>
<td>6.2</td>
<td>32 (9)</td>
<td>2.4</td>
</tr>
<tr>
<td>Food industry</td>
<td>18 (9)</td>
<td>1.6</td>
<td>25 (14)</td>
<td>1.8</td>
</tr>
<tr>
<td>Environment</td>
<td>48 (33)</td>
<td>4.3</td>
<td>56 (42)</td>
<td>4.1</td>
</tr>
<tr>
<td>Transport</td>
<td>65 (34)</td>
<td>5.8</td>
<td>85 (45)</td>
<td>6.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>234 (71)</td>
<td>20.8</td>
<td>298 (74)</td>
<td>21.9</td>
</tr>
<tr>
<td>Wood industry</td>
<td>34 (7)</td>
<td>3.0</td>
<td>19 (2)</td>
<td>1.4</td>
</tr>
<tr>
<td>Tourism</td>
<td>144 (114)</td>
<td>12.8</td>
<td>210 (169)</td>
<td>15.4</td>
</tr>
<tr>
<td>Healthcare</td>
<td>38 (36)</td>
<td>3.4</td>
<td>27 (26)</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>34 (14)</td>
<td>3.0</td>
<td>17 (15)</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>1,124 (100)</td>
<td>100</td>
<td>1,361 (100)</td>
<td>100</td>
</tr>
</tbody>
</table>

Table II. Educational choice of AVE graduates distributed by branches of industry. Number and percentage. Number of women (w) within brackets. (Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

The results show that gender-stereotyped choice of professions has indeed continued and that the reform has failed to adjust the bias. As with the first study in 1999, the results show that, of those that graduated in 2000 and 2001, the proportion of men was clearly dominant in the traditionally male-dominated industry branches of construction, wood and manufacturing as well as agriculture and forestry. For example, within the industry branch of construction, the combined proportion of men was as high as 83.5% (202 of 242). Conversely, the proportion of women within the tourism branch was 77.5% (536 of 692), within environmentally focused education women
proportioned 70.8% and within healthcare it was high as 92.9% (170 of 183 individuals). The most equal distribution of the sexes was obtained in the branches of information technology (IT), food, transport and within the miscellaneous category ‘other’.

Further, it should also be noted that results indicated that the recruiting patterns into different industry branches, which was obvious from the first investigation in 1999, had not changed significantly in the subsequent years. The strong increase in the IT branch from close to 17% during 1999 to over 27% in 2001 could be noted.

With regard to distribution by age, as Table III below indicates, there has been a significant displacement concerning age distribution of the graduate students. While the number of students aged between 16 and 24 years came to nearly 2% in the 1999 investigation, in 2001 the same age category consisted of more than one-fifth (21.4%) of those questioned.

<table>
<thead>
<tr>
<th>Age</th>
<th>1999 No.</th>
<th>1999 %</th>
<th>2000 No.</th>
<th>2000 %</th>
<th>2001 No.</th>
<th>2001 %</th>
<th>Sum total No.</th>
<th>Sum total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>16–24</td>
<td>21</td>
<td>1.8</td>
<td>160</td>
<td>11.8</td>
<td>631</td>
<td>21.4</td>
<td>812</td>
<td>14.9</td>
</tr>
<tr>
<td>25–34</td>
<td>846</td>
<td>75.3</td>
<td>862</td>
<td>63.3</td>
<td>1,648</td>
<td>55.8</td>
<td>3,356</td>
<td>61.7</td>
</tr>
<tr>
<td>35+</td>
<td>257</td>
<td>22.9</td>
<td>339</td>
<td>24.9</td>
<td>673</td>
<td>22.8</td>
<td>1,269</td>
<td>23.4</td>
</tr>
<tr>
<td>Total</td>
<td>1,124</td>
<td>100</td>
<td>1,361</td>
<td>100</td>
<td>2,952</td>
<td>100</td>
<td>5,437</td>
<td>100</td>
</tr>
</tbody>
</table>

Table III. Age distribution of AVE graduates. Number and percentage
(Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

Correspondingly, students in the age group 25 to 34 years decreased from over three-quarters (75.3%) at the 1999 investigation to 55.8% at the time of the 2001 inquiry. From the combined picture it is obvious that this category dominates by 61.7%. The proportion of students of 35 years and upwards shows small changes over time.

**Results**

The results of the investigation in 1999 suggested that graduates had been rather successful in finding jobs after examination (SOU, 1999b). Against a theoretical framework focusing on the challenges of linking VET and labour market, it is interesting to see whether AVE has continued to meet the demand and become wanted by industry.

**Employment Situation**

From Table IV below it can be seen by looking at the aggregate results that about 77% (77.4) of the graduates responded that they were employed and that 5.2% of them were self-employed, which means that close to 83% (82.6) had at the time of investigations found work. The results also reveal that
10.2% of the graduates had difficulties finding a job and that 8.1% of the graduates had continued studying at university.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>845</td>
<td>75.2*</td>
<td>1 013</td>
<td>74.4*</td>
<td>2 350</td>
<td>79.6*</td>
<td>4 208</td>
<td>77.4*</td>
</tr>
<tr>
<td>Self-employed</td>
<td>50</td>
<td>4.4*</td>
<td>84</td>
<td>6.2*</td>
<td>150</td>
<td>5.1*</td>
<td>284</td>
<td>5.2*</td>
</tr>
<tr>
<td>Unemployed</td>
<td>153</td>
<td>13.3*</td>
<td>162</td>
<td>11.9*</td>
<td>240</td>
<td>8.1*</td>
<td>555</td>
<td>10.2*</td>
</tr>
<tr>
<td>University</td>
<td>82</td>
<td>7.3*</td>
<td>105</td>
<td>7.7*</td>
<td>253</td>
<td>8.6*</td>
<td>440</td>
<td>8.1*</td>
</tr>
<tr>
<td>Remainder</td>
<td>1</td>
<td>0.1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0.1</td>
<td>4</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1 131</strong></td>
<td>100.3</td>
<td><strong>1 364</strong></td>
<td>100.2</td>
<td><strong>2 996</strong></td>
<td>101.5</td>
<td><strong>5 491</strong></td>
<td>101.0</td>
</tr>
</tbody>
</table>

Table IV. Employment situation 6 months after completed studies. Number and percentage.[4] *Significance (Chi2), 1%-level. (Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

A comparison between the different investigations shows that the number of employed had steadily risen from 1999 at 75.2%, to 2001 at 79.6%. This trend also applies to the number of those studying at tertiary level, revealing an increase from 7.3% during 1999 to 8.6% in 2001. Consequently, the results show that the proportion of unemployed had dropped from 13.3% in 1999 to 8.1% during 2001.

Distributed by gender, the aggregate findings show that 76.8% of men were employed and 6.3% had their own business. The proportion of employed women was 78.0% and self-employed was 4.1%. Distributed by age, the aggregate results show that the largest proportion was within the age category of 25-34 years (80.1%) while the greatest proportion of self-employed was within the age category 35 years and older (8.7%).

Distributed by educational focus of training, the results show that it was primarily those trained within economics, manufacturing, transport and IT who were employed. Conversely, it was harder for those educated within environment, the wood industry and the category 'other' to find employment. The biggest proportions of self-employed were among those educated within the branches of agriculture & forestry, construction and healthcare. All had higher proportions of self-employed than within the branches of economics (3.6%) and IT (5.9%), which is rather surprising since the latter are regarded as the cornerstones of the growing service sector. It must also be said that some of the branch groups are very small which makes it difficult to draw general conclusions.

The Employed within ‘Target’ Professions

It is not only important to see whether AVE graduates are employed; it is also important to determine to what extent graduates who had work actually work within a target’ profession, i.e. having a job in the same branch as that for which they were educated, as this was one of the fundamental goals of AVE.
The aggregated result shows that the proportion of graduates having a target job is high, with close to 80% (79.8). When comparing the various investigations, in Table V below, the results show that the lowest number of graduates active within their relevant field occurred in 2000, with a percentage of 77.7%. The result found in the first investigation in 1999 of nearly 84% was not exceeded.

<table>
<thead>
<tr>
<th>Answer</th>
<th>1999 No.</th>
<th>1999 %</th>
<th>2000 No.</th>
<th>2000 %</th>
<th>2001 No.</th>
<th>2001 %</th>
<th>Sum total No.</th>
<th>Sum total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>751</td>
<td>83.9*</td>
<td>852</td>
<td>77.7*</td>
<td>1 979</td>
<td>79.3*</td>
<td>3 582</td>
<td>79.8*</td>
</tr>
<tr>
<td>No</td>
<td>141</td>
<td>15.8*</td>
<td>244</td>
<td>22.3*</td>
<td>517</td>
<td>20.7*</td>
<td>902</td>
<td>20.1*</td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td>0.3*</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0.1*</td>
</tr>
<tr>
<td>Total</td>
<td>895</td>
<td>100</td>
<td>1 096</td>
<td>100</td>
<td>2 496</td>
<td>100</td>
<td>4 487</td>
<td>100</td>
</tr>
</tbody>
</table>

Table V. AVE graduates working within ‘target’ professions. Number and percentage. * Significance (Chi2), 1%-level. (Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

Distributed by gender, the aggregated results show that 80.7% of men who had work were active within a relevant field while the corresponding statistic for women was slightly lower at 78.9%. Age-wise, the results show that it is primarily those in the age category of 25-34 years (81.2%) who are most active within their relevant area of vocation. In the age category between 16-24 years, about 76.3% worked within the target field. Similarly, for those who at the time of investigation were aged 35 and older, the proportion of those working within a relevant field rose to 78.2%. It can therefore be seen that it is the youngest group of graduates which most often ends up outside their intended profession.

Finally, distributed by educational focus of training, the results show that graduates trained within IT, transport and healthcare are those with the highest proportion of working within a target profession. By contrast, graduates with the lowest proportion working in a relevant profession were found within the environment and wood industries.

Relation of Skills and Competences to Requirements

If graduates have a job and are working in a field relevant to their former training, an equally important question is whether the skills and competences provided within AVE programmes actually correspond to their everyday needs. This was another key goal of the reform and one of the major reasons for decentralising planning and designing of AVE programmes down to regional and local educationalists and enterprises.
Table VI. Graduates’ appraisal of the content of AVE programmes compared to what they currently need in their jobs. Number and percentage. * Significance (Chi2), 1%-level. (Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

As shown in Table VI, the results suggest that approximately 74% (74.4) of those employed or self-employed consider that the AVE contents provided do correspond to their competence demands, which can be seen as a good result. At the same time, close to one-fifth (19.8%) of those questioned stated that the training within AVE did not meet their expectations. Further, nearly 6% (5.8) of those questioned were uncertain. The results also show that the perception of the programme’s content-relevance has remained moderately stable between 1999 and 2001. The highest percentage of satisfied graduates occurred in 1999 where 76% (75.9) answered ‘Yes’, and this was nearly repeated in 2001 with 75.2%.

In terms of the graduates’ perceptions, when distributed by gender, the results indicate that the education and training met their needs was higher among women (75.3%) than among men (73.5%). Moreover, a slightly higher proportion of men were displeased with the training (21.4%) compared with 18.1% of women. By age, the results show that those from the age group 35 years and older were most satisfied with the relevance of the education and training (75.9%) and simultaneously least critical of it (18.7%). Conversely, graduates within the age category 16-24 years were least satisfied (73.5 %), while graduates aged 25-34 years were most critical towards the relevancy of the knowledge content provided (20.3%). Finally, when distributed by educational focus of training, the results indicate that the most satisfied graduates were found within the industry sectors of healthcare (90.8%), followed by agriculture & forestry (85.6%) and food (78.3%). Most critical were graduates educated within transport (25.8%), environment (23.3%), and the large sector with IT (22.8%).

Work Assignments

The general purpose of AVE was to educate people with specialised ‘knowhow’. One way of considering whether AVE programmes met the graduates’ needs and requirements was to determine the extent to which graduates who had work thought that their training had actually brought them jobs with more advanced work assignments.
From Table VII, the aggregate results show that just over 65% (65.7) of those questioned considered that their training had in fact contributed to more advanced and interesting job assignments. A comparison between the different investigations shows, however, that this perception decreased from the study in 1999, where close to 74% (73.7) of the participants felt that their training had contributed to their having more interesting work tasks, to slightly over 64% (64.7) in the 2001 investigation. From the same Table it can also be deduced that just over one-fifth (21%) did not think that the AVE programme had benefited their working life development.

<table>
<thead>
<tr>
<th>Answer</th>
<th>1999</th>
<th>%</th>
<th>2000</th>
<th>%</th>
<th>2001</th>
<th>%</th>
<th>Sum total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>659</td>
<td>73.7*</td>
<td>655</td>
<td>61.2*</td>
<td>1 595</td>
<td>64.7*</td>
<td>2 909</td>
<td>65.7*</td>
</tr>
<tr>
<td>No</td>
<td>187</td>
<td>20.9*</td>
<td>251</td>
<td>23.4*</td>
<td>496</td>
<td>20.1*</td>
<td>934</td>
<td>21.0*</td>
</tr>
<tr>
<td>Don't know</td>
<td>48</td>
<td>5.4*</td>
<td>165</td>
<td>15.4*</td>
<td>375</td>
<td>15.2*</td>
<td>588</td>
<td>13.3*</td>
</tr>
<tr>
<td>Total</td>
<td>894</td>
<td>100</td>
<td>1 071</td>
<td>100</td>
<td>2 466</td>
<td>100</td>
<td>4 431</td>
<td>100</td>
</tr>
</tbody>
</table>

Table VII. Perception that AVE contributed to more advanced work assignments. Number and percentage. * Significance (Chi2), 1%-level. (Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

In comparison between the investigations, the proportion of critical persons remained stable except for the investigation in year 2000. It is also shown that a total of 13% (13.3) of those questioned were uncertain, a relatively large proportion. This could possibly be due to the fact that those in this category are in their first jobs and have nothing to compare them with.

Distributed by gender, the aggregate results of the three investigations show that a somewhat greater proportion of men (66.6%) than women (64.6%) considered their training to have contributed to more interesting job assignments. On the other hand, the proportion of men who were critical was also somewhat larger (21.2%) than the proportion of women (20.9%).

Distributed by age, the combined results show that, of those questioned, the most satisfied were in the age bracket 35 years and older (70.6%), while the largest proportion of displeased graduates was in the category 16-24 years (29.2%). Distributing the results by graduates' educational focus of training, the results show that it was those educated within IT, healthcare and the category ‘other’ who felt their training had contributed to more interesting working assignments. By contrast, graduates who least felt that their training would lead to more interesting or more advanced work tasks were found within the industry branches of environment, and agriculture & forestry.
Economic Return of AVE

Asking the graduates who had work about salary structure can portray another aspect of the question of how AVE has been received and regarded in the labour market. In our first investigation in 1999, an average of almost 56% (55.9) of those questioned felt that they had received a higher salary due to their education and training, which is not especially high given the fact that the students usually finance themselves through study loans. Against this background, it is interesting to see whether this changed over time.

The aggregate result shown in Table VIII indicates that just over half (53.1%) of those questioned perceived that their diploma from AVE had in fact contributed to their earning a higher salary. Conversely, about one-third (33.8%) of the graduates did not think that the programme had contributed to a higher salary, which is a rather poor result given that the majority of students incurred a study loan. However, the rather high rate of uncertainty (about 13%) could be the result of this job being their first real job or that they had moved into a new occupational field and thus comparisons with former salary levels are not possible.

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>Sum total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>499</td>
<td>55.9*</td>
<td>524</td>
<td>48.5*</td>
</tr>
<tr>
<td>No</td>
<td>341</td>
<td>38.2*</td>
<td>400</td>
<td>37.1*</td>
</tr>
<tr>
<td>Don’t know</td>
<td>53</td>
<td>5.9*</td>
<td>156</td>
<td>14.4*</td>
</tr>
<tr>
<td>Total</td>
<td>893</td>
<td>100</td>
<td>1080</td>
<td>100</td>
</tr>
</tbody>
</table>

Table VIII. Perception that AVE caused higher salaries. Number and percentage. * Significance (Chi2), 1%-level. (Source: Statistics Sweden & LUT 1999, 2000 and 2001.)

Distributed according to gender, the aggregate results indicate that 55.1% of men felt they had received a salary increase while 32.9% did not. The proportion of those pleased among the women was a little less, where 51% perceived that they had received higher earnings while 34.9% did not. The results also depict salary differences according to age category. The greatest proportion of those asked who felt they had received a higher salary payment was found among the age category of 25-34 years (55.6%), followed by those aged 35 and older (53.3%). Accordingly, the results suggest that graduates within the age bracket 16-24 years had gained least graduating from AVE. Of those responding, only 41.6% had, to their knowledge, increased their salary.

Distributed by educational focus of training, the results suggest out that it was, above all, those educated in IT, transport and economics who received an increase in salary. The lowest proportion of those who felt their education had been of benefit to their salary was in the industry sectors of wood, tourism and the environment.
Conclusions

This article has explored the results from an ongoing research project surveying the experiences and opinions of some 5,400 students who have so far graduated from Swedish AVE. The aggregate results indicate that close to 83% had at the time of the investigations found a job and that the majority (about 80%) of the graduates were working within a profession corresponding to their education and training. Nearly 75% (74.4) of those who had work were making use of the skills and competences they were taught in their current job. However, only 53.1% felt that AVE had led to a salary increase, a rather poor result considering that students had incurred study loans.

Taken together, the results suggest that the educational features introduced with AVE, itself influenced by neo-classical economic thought (Monk, 2000), are with some exceptions successful when tested in working life. The findings also suggest that the AVE reform fits rather well with the general current trend in Europe of developing curricula with broader and more advanced content than initial and job-specific content (van Wieringen & Attwell, 1999). Based on the results, the combination of educational and organisational ideas of integrating school- and workplace-based learning, resembling Lave and Wenger’s framework of situated learning, decentralising the responsibility of designing and implementing AVE programmes to local actors, combining curriculum and providers of training from different education bodies, together appears to have a positive effect on how graduates are welcomed to and are coping within the labour market.

Finally, although these initial results indicate that AVE has introduced some new thinking within Swedish VET, linking the sometimes-felt abyss between school and working life, there is still much research to be done. For example, there is no research at present indicating the forms of employment which dominate or what terms of employment apply to AVE graduates. It is therefore important to continue studying development within AVE with a view to what happens after graduation, not least concerning employment and conditions, for competency development in the workplace.

Notes

[1] This article is based on a conference paper originally presented at the 2002 European Conference of Educational Research, Lisbon, 11-14 September. The conference was organised by the European Educational Research Association.

[2] The text is part of a research project on ‘Saturation Effects and Flexibility within Swedish Tertiary Vocational Education’. The authors acknowledge financial support for the project from the Swedish Office of Labour Market Policy Evaluation.

[3] The evaluation study, which was commissioned by the Government, commenced in 1996 and continued until September 1999. The study evaluated
208 programmes encompassing approximately 12,000 students and 123 education providers (see also Johansson et al., 2000).

[4] Table IV appears to indicate more graduates than were included in the investigation. This is because a number of students within colleges were also registered as job seekers.

References


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