

Cross Cutting Themes in the Education of VET Professionals

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Introduction

In February 1996 the Leonardo Surveys and Analysis project 'New Forms of Education of Professionals for Vocational Education and Training' (EUROPROF) was launched at a workshop in Bremen, Germany. The project, which initially involved some thirteen partners from different European Member States, aimed to identify new occupational profiles and develop new Masters Degree programmes for teachers, trainers and planners in vocational education and training. Whilst the initial phase of Leonardo funding has now ceased the project partnership has reformed itself as the EUROPROF network with over 30 members in every European Member State, the countries of Eastern Europe, the USA and Australia. The partners are now editing their second English language book, the Finnish language book is in a reprint and a Greek language book is awaiting publication. Over eighty reports, papers and other documents have been produced. The network is awaiting evaluation of four new funding proposals. Indeed 1998 is the third year that EUROPROF has organised a symposium at the ECER Conference. Despite this the project can only be said to have been partly successful in its original aims. The new Masters programmes were seen as a central plank in professionalising Vocational Education and Training and thus in moving VET towards recognition as a discipline in itself, rather than its present 'half life' between and drawing on different academic traditions and disciplines. Despite considerable progress over the last two and a half years this development is some way off, if indeed the original proponents would still choose to formulate their objectives in such a way.

Background: the need for EUROPROF

In this short paper we will examine some of the barriers to those goals and discuss the further steps that need to be undertaken in the development of a new framework for the professionalisation of VET. It is worth reflecting on the reason that the EUROPROF project has generated such a volume of activity and attention. First is the growing recognition of the centrality of VET professionals, especially in the context of the 'new paradigm of lifelong learning, to the teaching and learning process. Pedagogic research has shown that far from replacing the role of teachers and trainers, new forms of learning, including the use of open and distance learning materials and work based learning, require an active intervention in planning, designing and mediating the learning process (see, for example, Attwell, 1997; Engeström, 1995; Mjelde, 1995; Brown, 1997; Guile and Young 1997; Kauppi, 1998). Second is the question of methodology. The growing recognition of the importance of VET to innovation and economic competitiveness, allied to the European integration process, has led to an increase in European VET research, largely funded through the European Commission (Bynner and Chisholm, 1998). This in turn has focused attention on the methodologies to carry out studies on a transnational basis. The EUROPROF project has developed the idea of collaborative research as an additional tool to the more traditional comparative approach

which has characterised previous project development (Attwell, 1998), and has participated in the debate around an action research approach to transnational development (Nyhan, 1998). Furthermore the EUROPROF development has focused attention on the question of differences in culture and their impact and meaning for attempts to establish VET at a European level (Attwell and Hughes, forthcoming; Heikkinen, forthcoming). The third reason for the interest in the EUROPROF project lies in its wider implications for VET in Europe. In its design EUROPROF has eschewed traditional curriculum approaches, based on technical rationality (Edwards, 1995; Attwell and Brown, forthcoming). Instead it has sought approaches based on the concept of Gestaltung¹ (Heiddeger, 1996), and aiming to overcome the fragmentation of existing provisions in education for VET professionals (Kauppi, 1996). Such an approach has applicability for the wider field of VET in Europe as a whole, especially given the preponderance of new curriculum projects within the portfolio of EC funded VET programmes (Ant, 1998).

In this paper we will firstly consider a number of ‘cross cutting themes’ that have emerged through the life of the EUROPROF development. Secondly we will outline the model of continuing professional development developed to respond to these themes. Thirdly we will reflect on the new questions such a model poses for vocational education and training research in Europe. The paper is based on an analysis of the different surveys and studies undertaken through the EUROPROF project and on a number of other ‘related’ Leonardo projects, notably the INTEQUAL and Post 16 Strategies projects. In undertaking this analysis a central concern is how to close the gap between research and practice in VET, in other words how to build a community of practice which can assist in the professionalisation of VET through an articulation of the outcomes of research in practice. It should be noted that this approach differs significantly from the European Commission concern with project ‘impact’.

The Existing Education of VET Professionals

In a forthcoming publication (Attwell and Hughes, forthcoming) we explain how the process of collaboration has enabled the EUROPROF project to identify a series of trends and directions in the role and education of VET professionals in the different member states and reveals a complex and apparently paradoxical situation of simultaneous convergence and divergence.

Firstly, there is a broadening in the role of VET professionals in most countries in Europe. Perhaps of greatest significance is the increased attention being paid to continuing vocational training. Whereas previously the main focus for continuing training lay in the area of management development, the acceptance of ideas such as life long learning and the changes in work organisation are extending continuing training to include wider sections of the workforce and to encompass a broader curriculum. This means new responsibilities for traditional HRD specialists but also leads to a blurring in the division of roles between what was seen as the work of VET practitioners and that of HRD professionals.

Secondly, as a result of this trend, there is a new emphasis on organisational learning leading to new roles for both VET and HRD professionals in organisations and enterprises and in initial vocational education and training.

¹ The German word ‘Gestaltung’ has caused some problems for researchers in seeking an adequate English translation. The most commonly used word is ‘shaping’ – in the sense that workers develop the skills and knowledge to co-shape the use of technology and work organisation.

The third area where roles have broadened is in the provision of vocational education and training for the unemployed. The task of retraining the workforce is seen as a major task in most EU states. There is a movement away from lower level, narrowly focussed instructional activities to a more holistic model which includes counselling, work placement and monitoring as well as the planning and management of more demanding retraining programmes.

Fourthly, the trend towards decentralisation of vocational education and training provision is leading to new roles in management. At the same time the emphases on situated learning and work process knowledge are leading to deep seated changes in the form and delivery of VET provision. There is a move away from instruction and classroom provision towards a new focus on the management of the learning environment and the identification, design and structuring of learning activities. This in turn is highlighting activities such as mentoring, coaching, simulating and facilitating rather than instruction and didactic teaching. Once more, the trends indicate that reform of initial vocational education and training towards more work process related activities rather than classroom learning, is both broadening the role of VET professionals and, at the same time, leading to a convergence between the traditional roles of VET and HRD specialists. The primary role of both is now the management of the learning process.

However, if these changes are running in parallel in most member states, the way the effects of these changes are manifested in different cultures and their impact on national systems is not only complex but often divergent. For example, whilst occupational profiles are converging across member states, whilst the national labour markets are moving in similar directions and whilst (because of globalisation) new models of work organisation are being disseminated universally, the relationship between these elements and the relationship of these changes to different socio-cultural contexts is diverging.

It is outside the scope of this paper to analyse fully the reasons for such divergence. For this readers are directed to our forthcoming publication. Our aim in this paper is to identify the cross cutting themes and suggest ways in which these may assist in the development of research and models to reconcile divergence in practice.

However it is apposite at this juncture to consider the underpinning theory and practice which determines much of the education of VET professionals in Europe. Traditional definitions and explanations of professional competence or expertise have been based on theories of technical rationality - on the basis that learning can be applied in predictable and repeated ways (Edwards, 1993). Vocational education and training curricula and processes have traditionally been based on imparting a fixed body of knowledge and skills required for identified tasks within occupational roles. Furthermore the Taylorist work organisation which not only has dominated industrial and commercial practice, but also the organisation of vocational schools and work based training, has led to the division of roles between different specialists in the field of education and training. Thus the existing provision for the education of VET professionals tends to reproduce a division of labour between 'teachers', 'trainers', 'designers and developers' and 'training managers' (Kämäräinen, 1998). In this way the existing provisions split the integrative idea of 'work process knowledge' to particular aspects for which different categories of VET professionals can claim an exclusive ownership (e.g. command of the knowledge-basis of 'vocational subjects', experience in organised learning within enterprises and training centres

Cross Cutting Themes

The brief survey above provides a background for the identification of cross cutting themes. The picture of diversity and divergence does not in itself provide the basis for common European development, other than a comparative analysis. Nevertheless the EUROPROF project has been able to identify a series of themes, which although they are reflected in different ways in different countries and regions, allow the identification of models for further common development. These themes were first identified as a series of project 'cornerstones' (Attwell, 1997).

Social shaping as a goal

There is a growing critique of the European vocational education and training agenda as being economic in viewing qualifications as necessary for adaptation to technological and economic demand (Attwell & Hughes, forthcoming). Gerald Heidegger (1997) argues it is not enough for skilled workers to be able to respond to the changing requirements of our society. Instead they need the skills and knowledge to be able themselves to shape the application of technology and the social form of work. Instead Heidegger believes there is a dialectical relationship between education, technology and work. Felix Rauner (1998) also points to the inadequacy of existing taxonomies of knowledge, seeing the need to overcome the duality between academic knowledge (brain work) and vocational skill (hand work) which he traces back to the Renaissance. In the 21st century he suggests, work related knowledge will become central to both profitability and social community. This theme provides a basis for identifying the new kinds of knowledge required of VET professionals, including both technical and pedagogic competence, as well as the ability to shape their own work.

The importance of work-related knowledge

The cognitive side of occupational competence is key to the development of context-related expertise: with work-related knowledge providing the link between knowledge, which is not context related, and experience at work, which may not necessarily be used in a generalisable way. This implies both the need for active reflection upon experience and a shift from information to knowledge: expertise cannot be developed through simple although extended information acquisitions, but only through continuous and subtle cognitive experiences related to putting knowledge into action, co-developing personal and professional knowledge, and integrating individual knowledge into the larger dimensions of knowledge held by groups and whole organisations.

Need to focus upon learning and knowledge development

In terms of VET innovation the 'enjeux' are very relevant: a shift of emphasis is required from training to learning and from the mere transmission of knowledge through training interventions to the facilitation of learning (i.e. the creation, use and circulation of knowledge), through more complex interventions in which training is mixed with other human resources development (HRD) practices. In particular, it seems as if VET has to ensure that individuals are able to contribute to the processes of knowledge development within organisations. Accordingly there is a need to overcome the division between VET orientated teachers and HRD orientated trainers.

Knowledge development as a key factor in innovation

The focus upon particular kinds of knowledge development has been identified as a key factor in innovations designed to increase the supply of creative knowledge value: "what is important for the production of knowledge value is not so much facilities or equipment in the material sense, but the knowledge, experience, and sensitivity to be found among those engaged in its creation" (Sakaiya, 1991, p270). This way, knowledge is assumed as the real driving force of our era, but also strictly linked with day-to-day problem-solving and problem-setting in working situations, and more generally with the professional competencies and expertise.

The Professionalisation of VET

It is arguable that the themes identified above could be applied to any professional or occupational expert. In this way the challenge in developing new occupational profiles and new qualifications for VET professionals reflects the challenges facing the development of VET in Europe today. However it is also argued that the drive to 'professionalise the professionals' must be placed at the centre of European curriculum development concerns in the field of VET. Given the themes outlined above, and compared with the present education of VET professionals, the task is indeed daunting. The EUROPROF project originally posited the development of new Masters programmes as a step towards the recognition of VET as a discipline in itself. Given the intensity of the debate over the past two years we would develop this argument further. There have been concerns expressed that the term discipline, with its connotation of university departments and traditional forms of knowledge fails to meet the challenges facing VET. Our own research has pointed to the need for a new taxonomy of knowledge based on work processes (Attwell, 1997). In this context the term 'community of practice' (Brown, 1997) may offer a more clear meaning of what we are striving to achieve, as could Michael Young's and David Guile's (1997) formulation of a 'community of connective specialists'. All these formulations share the central concepts of a body of self-reflexive experts, able to apply knowledge and skills in a work related context. To this extent it remains a critical concern that the barriers between university based research and learning and the applied practice of VET teachers and trainers is broken down in developing a new relationship between theory and practice in action in VET.

Models for Continuing Professional Development

Our analysis of the failings of the present education of VET professionals has led us to the need to develop new models. Such models should include the initial education of teachers and trainers but need to develop a broader perspective in order to encompass continuing learning. The models should be based on the development of new knowledge through the application of expertise. Such a model needs to be robust at the level of pedagogy and design whilst providing the flexibility for its implementation in different cultural and social settings. The Continuing Professional Development (CPD) of professionals needs to be reflective, forward-looking and dynamic. It needs to equip professionals with the ability to support the development of skills, knowledge and understanding of others as well as of themselves, in a commitment to lifelong learning, as well as seeking to accommodate requirements for complexity and flexibility. Such a task is only achievable with a commitment to continuing professional development within a culture which acknowledges the importance of developing practice, expertise and a research capability in an inter-related way (Brown, 1997a), so as to be able to support the generation of new forms of knowledge (Engeström, 1995).

Communities of Practice

The Continuing Professional Development of professional communities of practice needs to incorporate current concerns, but also have the ability to look beyond these, and this is possible only if, as Ellström (1997) argues, practitioners develop a broad developmental and interactive view of occupational competence. This would complement a focus upon the significance of work-related knowledge and work process knowledge in the Continuing Professional Development of professional communities of practice. A fuller explanation of the model is provided elsewhere in the ECER 98 conference (Attwell and Brown, 1998). Here we will limit ourselves to a summary.

Developing practice

Initial competence as a professional is often associated with the ability to ‘survive’ and gradually assume a full position within particular ‘communities of practice’ (Lave, 1991). However, practitioners need to have a continuing commitment to explore, reflect upon and improve their professional practice (Schön, 1983; 1987). This in turn means that practitioners have to develop the understanding, skills and knowledge necessary to evaluate and review their professional practice, recognising that such practice often takes place in complex and dynamic contexts.

Developing expertise

The initial key to going beyond competent practice lies in the ability to transfer skills, knowledge and understanding from one context to another (Eraut, 1994), so Continuing Professional Development has to be able to support this process, including through helping practitioners to perform effectively when they work with colleagues and in groups with different kinds of expertise (Engeström, 1995).

Another aspect of developing expertise lies in the ability of the professional to handle the complexity and inter-relatedness of issues. There is clearly not a precise moment when one can identify a shift from ‘competent practitioner’ to ‘expert’, not least because it requires a degree of self-acknowledgement as well as recognition by others (Brown, 1997b). Expertise rather lies at the conjunction of research, theory and practice, such that the practitioner can be considered ‘reflective’, not only upon action, but also upon ‘reflection in action’. In order to develop expertise it is important for practitioners to develop their research skills and be able to apply them to their professional practice. In an important sense then expertise is itself partly generated through research.

It should also be noted that understanding and, if appropriate, application of theory has a role to play within developing expertise. While the value of practical theory or ‘theorising’ in the sense of reflecting upon his or her own practice is central to the process of becoming an experienced professional (Schön, 1987), this on its own is insufficient. Rather because it is locked into current modes of practice, it is important that ‘theoretical learning’ is also developed (Guile and Young, 1996). Theoretical learning provides the concepts for analysing the problems that arise for professionals at work and for making explicit the assumptions underlying existing practice (Guile and Young, 1996). This conceptual knowledge can then be used to underpin reflection upon practice at a deeper level than just ‘theorising’ practice. Such conceptual knowledge can have both explanatory power and be applied to (changes in) practice. It therefore complements the development of practical learning, based upon

reflection on practice. Crucially, however, the development and application of theoretical learning also facilitates a forward-looking perspective: enabling thinking about how practice might be developed in future.

Developing a research capability

Teaching and nursing are recent examples of professions where there have been explicit attempts to move more towards making these research-based professions, where practice is not only informed by research, but new knowledge about practice is capable of being generated by the professionals themselves. This entails explicit recognition that practitioners have a key role to play in how new knowledge is generated and applied in practice (Engeström, 1995). Further this could be linked with an attempt to create wider communities of practice that embrace research as a guide to both policy and action (Brown, 1997a).

The ability to design and carry out authoritative research into aspects of professional practice individually or as part of a team is an integral part of practitioners developing a research capability. However, possession of research skills will also be valuable in helping professionals analyse, interpret, evaluate and, if appropriate, apply the research findings of others. .

The ability to communicate effectively

Personal change and development are central to the educational process, and professionals have to be receptive to challenges to their ideas and existing patterns of thought and action. Reflecting upon and responding to change will also involve complex social processes in which the ability to communicate effectively is essential.

Inter-relationships

Professional knowledge can itself be regarded as a personal synthesis of received occupational knowledge and situational understandings, derived from experiential learning, which are capable of being further transformed through a process of critical reflection (Hammond and Collins, 1991). As expertise develops, and new contexts are utilised in the performance of practice, so the processes of research, review and reflection can lead to the creation of new forms of knowledge (Engeström, 1995). Continuing professional development can play a role in making these processes explicit such that others too can share in the developmental process. Hence Continuing Professional Development has at its core a number of inter-related commitments. The most obvious is a commitment to personal development. The others include:

- exploration of, reflection upon and improvement of professional practice.
- development of skills, knowledge and understanding (of critical reflection) necessary to evaluate and review professional practice.
- need to understand processes of change (as practice increasingly takes place in complex and dynamic contexts).
- ability to create new knowledge.
- development of theoretical knowledge to underpin and complement reflection upon practice.
- study of the interplay between theory and practice.
- need to be able to transfer skills, knowledge and understanding from one context to another.

- the generation of expertise through research.
- ability to handle complexity and inter-connectedness of issues (including through the formulation of mental models, schemas or networks).
- development of contextualised understandings.
- translation of understanding into action, as appropriate.
- further development of communication skills.
- attempt to create a wider community of practice that embraces research as a guide to both policy and action.
- ability to design and carry out authoritative research into aspects of professional practice.
- ability to analyse, interpret, evaluate and, if appropriate, apply the research findings of others.

Cross Cutting Themes in Practice

We are convinced that our model is robust enough to be applicable in different historical, cultural and social settings. However the model poses new questions in terms of curriculum design and implementation. Traditional curricula, based on criteria of technical rationality, have been designed around the identification of outcomes, albeit with differing taxonomies and assessment regimes. In higher education curricula have been derived from the identification of a corpus of knowledge associated with a particular subject or discipline. In vocational education curricula are most frequently derived from some process of functional analysis, through examining the skills and knowledge required for a particular occupational profile and then deriving a list of objectives or outcome status, with the greater or lesser participation and influence from social partners. Our exploration of cross cutting themes, and the development of a model for continuing professional development, indicates a need to develop new processes. Firstly there is the need to identify the parameters and nature of the work process knowledge applied in a profession or occupation. In recognising that knowledge and learning play a central role in the development of innovation then it must be seen that there are choices in how such knowledge is defined. It is possible to develop different scenarios for the future of work and technology in different occupational fields. The very form of education will influence the ability for different scenarios to be enacted.

But more important is the centrality of learning to our model. If learning is, as we hypothesise, situated, then this gives an increased importance to the provision of a range of rich learning situations and the ability and support to reflect on that learning. Thus the new curriculum may be better understood as a series of processes, rather than a series of defined outcomes based on a limited corpus of knowledge. This in turn leads to two observations. Firstly is the need for new tools to develop and expand such learning processes. In this the world of education and of VET may once more benefit from the experiences of those working in the field of HRD and organisational learning. Second is the need for a dynamic process where the VET community itself plays a central role in defining and developing the goals and design of its own professionalism – in other words a dynamic community of active, reflective learners.

However the development of such a community itself demands the forging of a new relationship between VET researchers, policy makers and planners, and VET practitioners. The present divides in Member States are reflected at a European level. A first evaluation of

the impact of the new European programmes in VET and in education which followed the Maastricht agreement must raise concerns over the way research has been integrated within the programmes, and as to the effectiveness of the programmes outcomes. The professionalisation of VET demands not only the development of new pedagogic processes but new methodologies and processes for VET research itself. In this respect there is a need to develop rigorous tools and methodologies for comparative VET research as a tool for the identification, trialling and development of a VET pedagogy at a European level.

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