

Felix Rauner, Erica Smith,
Ursel Hauschildt, Helmut Zelloth (Eds.)

Innovative Apprenticeships

Promoting Successful School-to-Work Transitions



LIT

Felix Rauner, Erica Smith,
Ursel Hauschildt, Helmut Zelloth (Eds.)

Innovative Apprenticeships

Promoting Successful
School-to-Work Transitions

Innovative Apprenticeships

Promoting Successful School-to-Work Transitions

17–18 September 2009

Turin, Italy

Conference Proceedings

edited by

Felix Rauner, Erica Smith,
Ursel Hauschildt, Helmut Zelloth

LIT

Co-Organisers of the INAP Conference 2009:
TVET Research Group (I:BB), University of Bremen
European Training Foundation (ETF), Turin
European Research Network in Vocational Education and Training (VETNET)

Programme committee:

Prof. Felix Rauner, TVET Research Group, University of Bremen
Mag. Helmut Zelloth, European Training Foundation, Turin
Prof. Erica Smith, University of Ballarat, Australia
Dr. Ludger Deitmer, Institute Technology and Education, University of Bremen
Dr. Manfred Wallenborn, European Training Foundation, Turin

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

ISBN 978-3-643-10367-3

A catalogue record for this book is available from the British Library

© LIT VERLAG Dr. W. Hopf Berlin 2009

Fresnostr. 2 D-48159 Münster
Tel. +49 (0) 2 51-620 32 22 Fax +49 (0) 2 51-922 60 99
e-Mail: lit@lit-verlag.de <http://www.lit-verlag.de>

Distribution:

In Germany: LIT Verlag Fresnostr. 2, D-48159 Münster
Tel. +49 (0) 2 51-620 32 22, Fax +49 (0) 2 51-922 60 99, e-Mail: vertrieb@lit-verlag.de

In Austria: Medienlogistik Pichler-ÖBZ GmbH & Co KG
IZ-NÖ, Süd, Straße 1, Objekt 34, A-2355 Wiener Neudorf
Tel. +43 (0) 22 36-63 53 52 90, Fax +43 (0) 22 36-63 53 52 43, e-Mail: mlo@medien-logistik.at

In Switzerland: B + M Buch- und Medienvertriebs AG
Hochstr. 357, CH-8200 Schaffhausen
Tel. +41 (0) 52-643 54 30, Fax +41 (0) 52-643 54 35, e-Mail: order@buch-medien.ch

In the UK by: Global Book Marketing, 99B Wallis Rd, London, E9 5LN
Phone: +44 (0) 20 8533 5800 – Fax: +44 (0) 1600 775 663
<http://www.centralbooks.co.uk/html>

In North America by:


Transaction Publishers
New Brunswick (U.S.A.) and London (U.K.)

Transaction Publishers
Rutgers University
35 Berrue Circle
Piscataway, NJ 08854

Phone: +1 (732) 445 - 2280
Fax: + 1 (732) 445 - 3138
for orders (U. S. only):
toll free (888) 999 - 6778
e-mail: orders@transactionpub.com

Table of Contents

INTRODUCTIONS

Felix Rauner and Erica Smith	7
Dagmar Ouzoun	8
Helmut Zelloth	10

KEYNOTES

Innovative Apprenticeships: Promoting Successful School-to-Work Transitions. The Example of Switzerland	15
<i>Ursula Scharnhorst</i>	
Apprenticeship, Pathways and Career Guidance: A Cautionary Tale	17
<i>Richard Sweet</i>	
Vocational Identity and Flexible Work: A Contradicting or Constructive Relation?.....	35
<i>Walter R. Heinz</i>	

WORKSHOP I

MANAGING THE TRANSITION FROM GENERAL SCHOOLING TO VOCATIONAL CAREERS

Transition from Lower- to Upper-Secondary School in the Canton of Ticino (Switzerland): The Choices made by Young People	51
<i>Elena Boldrini and Luca Bausch</i>	
Dropout Rates in Vocational Education and Training: A Failure of the School-to-Work Transition?	57
<i>Marine Jordan, Nadia Lamamra, Jonas Masdonati</i>	
A Dynamic Concept of Culture as a New Approach to Investigate the Gap between Schooling, Vocational Training System and the Youth	63
<i>Stefan Wolf</i>	
Managing the Transition from School-to-Work – Empirical Findings from a Mentoring Programme in Germany	69
<i>Martin Lang</i>	
The Transition from Secondary School to Vocational Education and Training	73
<i>Damian Spiteri and Katya DeGiovanni</i>	
Experiential Learning Assessment and Competence Development for a Second Career: the Case of Alternating Training Programmes for Professional Promotion	77
<i>Philippe Astier and Lucie Petit</i>	
Career Education and Orientation Year: Effective Transition Tools from General Schooling to Vocational Education. The Case of Kosovo	83
<i>Lumnje Mehmetaj</i>	
Boundary Crossing: Transitioning Students to Work through Authentic Employment-based Training in an Australian Senior Secondary VET Program	87
<i>Terry O’Hanlon-Rose and Alan Roberts</i>	

Prevocational Literacy: Towards a Maturity for Vocational Learning in Germany – Causes and Diagnosis –	93
<i>Volker Bank and Kristina Porsche</i>	
The Role of Internships at German Vocational Schools: The Example of the ‘Berufsgrundbildungsjahr’	99
<i>Christian Schmidt</i>	
Demand for Career Guidance in Low- and Middle-Income Countries: An Indicator for the Growing Need of More Effective Transition Support Services	103
<i>Helmut Zelloth</i>	
Work-based Learning in the Chinese VET System	109
<i>Xu Han</i>	
Transition without Barriers: Improving and Matching Basic Competencies and Vocational Qualification Needs	113
<i>Peter Härtel and Michaela Marterer</i>	
Transition from Vocational Education and Training (VET) to Work – Problems and Perspectives for Developing and Transition Countries	117
<i>Manfred Wallenborn</i>	
Trainers’ Changing Role and Continuing Learning in Different VET Systems: A Comparative Perspective	121
<i>Simone Kirpal</i>	
Well Prepared for the Labour Market? Employment Perspectives and Job Careers of Young People after a two-Year Basic Training Course with Swiss Basic Federal VET Certificate	127
<i>Marlise Kammermann</i>	
A Model for Engaging and Evaluating Innovative Cross-Sectoral Education Reform – Case Studies from Queensland, Australia	131
<i>Wayne Delaforce and Judi Robinson</i>	
 WORKSHOP II	
BUILDUNG VOCATIONAL IDENTITY: A CENTRAL TASK OF APPRENTICESHIP / COMPETENCE EVALUATION AND DEVELOPMENT	
Low Achievers’ Risky Pathways: PISA Literacy Scores as Predictors of Upper Secondary Enrolment and Graduation	137
<i>Barbara E. Stalder, Thomas Meyer and Sandra Hupka-Brunner</i>	
Occupational Identity and Motivation of Apprentices in a System of Integrated Dual VET	141
<i>Lars Heinemann, Felix Rauner</i>	
Occupational Identity in Australian Traineeships: An initial Exploration	145
<i>Erica Smith</i>	
Occupational Identity and Motivation of Apprentices in a System of Integrated Dual VET	151
<i>Ursel Hauschildt and Lars Heinemann</i>	
Ensuring Inter-Rater Reliability in a Large Scale Competence Measurement Project in China	157
<i>Andrea Maurer, Felix Rauner, Lars Heinemann</i>	

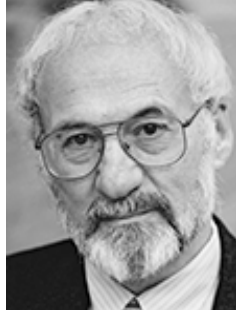
Project Teaching of School-Enterprise Cooperation Based on Real Production Contract - Case Study of GTI.....	161
<i>Zhiqun Zhao, Zishi Luo and Donglian Gu</i>	
Can Apprenticeship be Innovative? Reconceptualising the Learning Journey in the Knowledge Economy	165
<i>Alison Fuller and Lorna Unwin</i>	
Conceptual Change – A new Research Task in TVET	169
<i>Waldemar Bauer</i>	
Work-based Learning in Apprenticeship -Reflections on Irish Cases	173
<i>Barry Nyhan</i>	
Co-operation of School and Enterprise: The Case of BITC Beijing.....	177
<i>Ludger Deitmer, Lars Heinemann and Mingying Xu</i>	
To Earn or to Learn? Identity Implication of Microtransitions from Failure to Success in Working Class Adolescents implied in Innovative Vocational Training ...	183
<i>Laura Bonica and Viviana Sappa</i>	
The Contribution of Older Workers’ Issue to Innovate Apprenticeship from the Perspective of the Cultural Historical Activity Theory	191
<i>Maria-Cristina Migliore</i>	
Transforming a Child Labour Scheme into a Modern Apprenticeship one: The Role of NGOs and Government. The apprenticeship component of the CCL Project.	197
<i>Luca Azzoni</i>	
“Putting Knowledge to Work” in Work-based Programmes: Conceptual Issues, Pedagogic Strategies and Enduring Challenges.....	201
<i>Karen Evans and David Guile</i>	
Approaches towards a Qualitative-Ranked Measuring of Competencies in LSA.....	207
<i>Rainer Bremer, Andreas Saniter</i>	
WORKSHOP III	
LEVELS OF GOVERNANCE AND THE ROLE OF STAKEHOLDERS IN APPRENTICESHIP	
Apprenticeship and Modern Vocational Education – The Rise of the German ‘Dual System’	213
<i>Philipp Gonon</i>	
The EQF and Apprenticeship: the Case of Bricklaying	217
<i>Michaela Brockmann, Linda Clarke, Christopher Winch</i>	
The Role and Impact of the Main Stakeholders in the Reform of the Initial Vocational Training (VET) in Switzerland Taking into Account Regional and Organizational Specificities	223
<i>Caroline Meier Quevedo</i>	
Pathway Planning: Examining the Benefits and Outcomes of a Traineeship and Apprenticeship Pathway Program	229
<i>Martin Stalker and Thao Le</i>	
Differences in the Organisation of Apprenticeship in Europe: Findings of a Comparative Evaluation Study	233
<i>Felix Rauner</i>	

'Employability and Employment' – Innovative Policies and Measures in the German TVET Cooperation	239
<i>Michaela C. A. Henn and Klaus Meininger</i>	
Mubarak-Kohl Initiative for Dual System (MKI-DS) – The Case of Egypt. Successful in Reforming the TVET System and Shaping the Society	245
<i>Edda Grunwald and Bernhard Becker</i>	
Transition to Employment of Apprentices after Graduation -The Obstacles in Syria .251	
<i>Anton Al-Jouni and Yomna Dallal-Bashi</i>	
Intermediary Bodies in Apprenticeship: An Answer to Challenges in HRD in the Building and Construction Sector in Egypt	257
<i>Aboubakr Abdeen Badawi</i>	
VET for Youth in Canada and the United States	261
<i>Bonnie Watt-Malcolm, Antje Barabasch and Alison Taylor</i>	
Quality Assurance in the Regional Integrated Vocational Training Centers in Hungary	265
<i>Magdolna Benke</i>	
Accelerated Artisan Training at the Manufacturing Coalface: Responding to the Skills Challenge in South Africa.....	269
<i>Salim Akoojee and Helen Brown</i>	
Apprenticeship as a Successful Tradition and an Innovation in Croatian Education System	275
<i>Olga Lui</i>	
Role of Social Partners and the Status of Apprenticeship in Turkey.....	281
<i>Arjen Vos and Özlem Ünlühisarcıklı</i>	
The Algerian Experience of Developing an Apprenticeship System	285
<i>Mr Kayouche Sid Ali</i>	
'Last Mile to the Job – Training on Demand in the IT Offshoring Sector'	291
<i>Mohamed Slassi Sennou</i>	
A Renaissance for Apprenticeship Learning? - and it's Implications for Transition Countries	297
<i>Sören Nielsen</i>	

INTRODUCTIONS

Felix Rauner and Erica Smith

Chairpersons of the INAP-Board



This conference, in Turin on 17-18 September 2009, is the third international conference of the International Network on Innovative Apprenticeship (INAP). INAP was founded by a small group of apprenticeship researchers that met at the University of Bremen in 2006 to discuss the findings of a collaborative research project on apprenticeship, spanning several countries. The focus of the project and that first

conference was on the costs and benefits of, and quality in, apprenticeship. From these small beginnings the network has grown to encompass a much larger group of researchers in many countries, who span a range of discipline backgrounds. The second INAP conference was in Vienna in February 2008. It assembled researchers from 13 countries, with papers in two additional areas of interest besides the original area: levels of governance and the role of stakeholders in apprenticeship, and designing optimal conditions for on-the-job training in apprenticeships.

While, of course, apprentices and companies benefit enormously from apprenticeships, there are many wider effects of apprenticeship systems for economies and societies. Apprenticeships provide a safe passage for young people into adult working life, and in many countries are available to adult workers as well. They provide occupations with a continuing supply of skilled labour, developing people with a genuine and long-lasting interest in those occupations and with the propensity to pass on this interest to the next generation of workers. They are pivotal to the development of human capital within national skill formation strategies. The INAP network has helped to strengthen the research base on apprenticeship, providing the scholarly community with advances in knowledge and understanding, and governments with better evidence on which to base policy. The international exchange of ideas among INAP members has helped to disseminate good practice and innovation into many countries.

Through its broader focus, the 2009 conference recognises the wider role of apprenticeship, as described above. As well as further exploration on levels of governance and the role of stakeholders, two new concepts are added in this conference: managing the transition from general schooling to vocational careers, and the development of vocational identity through apprenticeships.

The conference reflects the growth of INAP, as well as the growth of international interest in apprenticeship, by the fact that it has attracted almost 50 papers with contributors from five continents. The event offers many opportunities for delegates not only to engage in scholarly discussion and theoretical development, but also to take back, to their own countries, practical ideas that they may be able to implement or to draw to the attention of relevant stakeholders.

We are grateful to the co-organisers, the TVET Research Group (I:BB) at the University of Bremen; the European Training Foundation in Turin; and VETNET, the European Research Network in Vocational Education and Training.

Dagmar Ouzoun

*National Expert at the European Commission; Directorate General for Education and Culture; Lifelong Learning: Policies and Programme
Unit B.5 Professional Training; Leonardo da Vinci*



I would like to welcome and express my best wishes for this international conference on "Innovative Apprenticeships: Promoting Successful School-to-Work-Transitions", organised by the International Network on Innovative Apprenticeship in cooperation with the TVET Research Group of the University of Bremen, the European Training Foundation (ETF) in Turin and the European Research Network in Vocational Education and Training.

The network has picked up this topic from different perspectives and levels. Efforts are welcome to share knowledge and know how, to exchange best practices, to compare experiences and smooth the transition between research and governance. The coherent and stimulating programme based on expert input from an outstanding range of speakers and contributors will achieve both: inform each other about the value and possibilities of multiple approaches and different perspectives as well as stimulate them for follow up.

The transition from one learning system to another one, from school to work, from one job to another is one of the biggest challenges that society faces today. People need assistance in these delicate passages, they need information and guidance. What measures should be developed to make these transitions smoother in the future?

In the discussion about concepts, new methodologies and any other innovative approach, it is crucial to be aware of the individual who is at the core of our attention. In the present climate, success goes to those who have the personal stability, the creativity to pick up and absorb opportunities for themselves and others. Citizens are needed that have a great degree of autonomy, know how to take initiative and assume responsibility for action.

Lifelong learning in individual pathways is the key to ensure world's competitiveness and social wellbeing.

The questions that will be addressed in this conference are at the centre of European concerns in education and training.

Unfortunately, too many of our young people face an uncertain future:

- 6 million young people, 1 in 7 in the 18-24 age range, leave school early, with only compulsory education, at best.
- Last year, 15.5% of young people aged from 15 to 24 were unemployed, twice the average unemployment rate in Europe.
- In many European countries, second-generation children from migrant backgrounds are performing less well in school than their parents did – a worrying sign that social divides can actually worsen over time.

For a wealthy continent like Europe this is not to be excused. It is a waste of each young person's talents and a waste for society as a whole. Designing optimal contextual conditions for personal and professional development, guidelines, pathways, institutional structures and international dialogue require common efforts and close cooperation.

Current challenges of apprenticeship training in a modern society require every effort, an appropriate policy framework and supporting programmes, instruments and tools based on research findings and historical educational backgrounds. Networks in order to reach strategic partnerships among worlds' best innovators and researchers who genuinely understand academic, education and business environments and who will act as bridge builders, are crucial in these processes.

In a world economy that is becoming more and more competitive, success is increasingly being determined by the ability of research, education and business to innovate.

Europe's best companies operate in global markets. If the establishment of a world-class vocational education and training system in Europe is aspired, a good understanding of how vocational education and training works throughout the world is needed.

The relation between research, education and business, especially in a lifelong learning perspective, features high on the European agenda. The European Commission is enhancing cooperation between stakeholders in order to create the best conditions for research and advanced studies in Europe, together with National Authorities and other European institutions. The progress since 2000, the Lisbon strategy, the Open Method of Coordination, the Copenhagen process and the two enlargements have changed the European context for vocational education and training and give reasons to believe that the right path is taken. The results and outcome of the workshops will have an added value for the future processes.

The conference is an encouraging way to continue to pursue the vision to establish a European vocational education and training area based on trust, excellence and open to the world.

Helmut Zelloth

Senior Human Capital Development Specialist at the European Training Foundation (ETF), the EU agency which supports human capital development in countries surrounding the EU

Apprenticeship and work-based learning solutions have been somewhat neglected in past vocational education and training reforms in low- and middle-income countries neighbouring to the European Union. The reasons for this are manifold and can differ from region to region. For example, the Eastern European countries belonging to the former Soviet Union all had been facing difficult transitions towards a market economy. Previous industries and even 'semi-apprenticeship' training systems broke down and it took time to establish a private sector and social partnership models. Countries of the Mediterranean region have a traditional strong academic orientation in secondary education coupled with small and largely school-based vocational education systems. At the same time skill development through 'informal apprenticeship' has been existing for long time in countries within a context of a large informal sector.



Despite a number of constraints for the development of apprenticeship and work-based learning, such as the small size of some national initial vocational education and training systems, the reality of wage fixation systems and competition from cheap labour, current developments and contextual factors seem to favour such solutions in the future. Both apprenticeship and other forms of work-based learning require a strong involvement and active role of the economy, private sector and social partners in vocational education and training; they could take off some of the rising pressure which is put on public policy due to high population growth, the flow into the labour market of large numbers of young people and the increasing difficulties and bottlenecks of public financing for education and training.

In recent years in a number of European Union member states a trend has been noted of re-energising apprenticeship as a valuable route sometimes even through considerable expansion of apprenticeship, as stated by a 2008 follow-up report to the Copenhagen process on developments in the opening up of vocational education and training in Europe. A 2009 ETF analysis of work-based learning programmes for young people in ten Mediterranean countries revealed that in addition to informal arrangements almost 30 formal work-based learning schemes are in place in the region. A few countries even have introduced clear policy goals to substantially increase the number of participation in apprenticeships and to tap potential for such kind of learning.

Among the key challenges that face apprenticeship and other work-based learning programmes in the Mediterranean region were identified the balancing of growth and quality improvement; reconciling social and economic needs; strengthening links to the labour market and targeting at higher-skilled areas of the economy that lead to attractive work; and improving governance systems, including the regulatory environment and financing systems.

Some of these findings seem to be relevant also to countries from other regions, such as Eastern Europe or the Western Balkans. Further research and analysis in apprenticeship and work-based learning is needed in order to detect demand, opportunities as well as constraints of local contexts and to better identify and assess

options and the feasibility of work-based learning solutions. Strengthening the co-operation at research and international levels – as demonstrated by this International Conference and the International Network on Innovative Apprenticeships - is an important way forward towards achieving this goal and towards improved links between research and policy-making.

KEYNOTES

Innovative Apprenticeships: Promoting Successful School-to-Work Transitions. The Example of Switzerland

Ursula Scharnhorst

*Swiss Federal Institute for Vocational Education and Training
Kirchlindachstrasse 79, CH-3053 Zollikofen*

Summary: All VET systems intend to develop labour for the workplace by transmitting work skills, general and civic competencies to young people in order to prepare them directly for different occupations and to ensure their mobility in a rapidly changing economic world. However, depending on social conditions and educational traditions, big differences among countries can be found in the role that VET plays and how it is organised. Within the last two decades, economic and societal changes have posed a number of challenges to traditionally grown, highly organised and specialised VET systems like Switzerland's. Continuous adaptation and innovation are therefore necessary to keep the successful Swiss VET system attractive and competitive – in the perspective of the individuals' educational choices as much as with regard to the rapid changes and the increasing demand of the labour market (globalisation, tertiarisation) to dispose of employees with flexible high-level professional skills and general key competencies. To ensure the success and the benefits of the Swiss VET system in the future, its governance, the underlying goals and ways of education and training have been subject to a number of important reforms over the past years. They will be presented, analysed and discussed with respect to their promising and successful aspects as well as to some problems related to issues of effectivity, efficiency and equity (Scharnhorst, 2007; Barabasch, Scharnhorst & Kurz, 2009). Outside viewpoints and evaluations of the current Swiss VET system and its changes and important differences with respect to other countries with similar systems will be included.

Introduction

The presentation will give an overview of the development of various important dimensions in the on-going reform process of the Swiss system of Vocational and Professional Education and Training (VET/PET) by outlining its general framework, its functioning and the relationships with the general education system (Barabasch, Scharnhorst & Kurz, 2009). Important changes and their underlying rationale will be highlighted to explain what was and still is done to maintain and hopefully increase the relatively high number of successful school-to-work transitions as well as mobility and life long learning of the Swiss work force to ensure economic competitiveness and prosperity. Serious challenges of the system will also be taken up and discussed.

Methodology

The main mechanisms held responsible for the success of VET in Switzerland which has to deal with different cultural and linguistic areas will be described and explained.

Corresponding statistical data about the Swiss VET/PET system will also be provided.

Critical international and external viewpoints, comparisons and evaluations of the governance and the systemic innovations in Swiss VET/PET will partly also be presented (e.g. OECD, 2009; Rauner, 2009) to track down those characteristics that might be essential for the systems' success. However, serious challenges or problems with respect to effectivity, efficiency and equity in the Swiss educational system in general and in VET particularly will also be analysed.

Further, different additional measures that are provided in the Swiss VPETA in order to install continuous forms of monitoring, analysis and development of innovations are outlined and the current state of realisation is presented and discussed (e.g. the contribution of specific structures for VET research and development).

Results

The Swiss system on the upper secondary level is clearly focussed on the dual form of initial VET. Two thirds of the young people leaving lower secondary education choose a VET track. 80% of them engage in an apprenticeship program, i.e. they are trained in a productive company (3 to 4 days a week) and, at the same time, they visit vocational schools. Relatively few follow a fully school-based VET program.

At present, 90% of the population acquires a VET certification on this level but the goal is to achieve 95% nationwide and to further improve the VET systems' power of integration for the population at-risk of not taking up further education after leaving compulsory school.

The initial VET system is highly specialised as it offers more than 250 career choices. The necessary reforms of the corresponding VET programs are achieved in close cooperation between the economic system (professional associations, i.e. representatives of companies) and representatives of the government on federal and state levels as well as a number of other partners (e.g. representatives of trade unions and vocational teacher associations). It is in many ways a slow and sometimes difficult process but it is supposed to guarantee that the VET programs which are put in vigour according to the Vocational and Professional Education and Training Act (VPETA) are shaped in a way to maximize smooth and successful transitions into the labour market and permeability with respect to higher-level PET and even further professional or general education at the tertiary A level (e.g. Federal Vocational Baccalaureate and potential subsequent educational pathways).

References

- Barabasch, A., Scharnhorst, U., & Kurz, S. (2009). Länderbericht Schweiz. In F. Rauner (Hrsg., unter Mitarbeit von W. Wittig, A. Barabasch, L. Deitmer), *Transnationaler Vergleich ausgewählter Berufsbildungssysteme mit dem Schwerpunkt der Optimierung der Steuerungs- und Unterstützungssysteme (Governance) im deutschen Berufsbildungssystem* (Kap. 6). Gütersloh: Bertelsmann.
- Pedro, F., Burns, T., Ananiadou, K., & de Navacelle, H. (2009). *Systemic Innovations in VET. OECD Country Case Study report Switzerland*.
- Scharnhorst, U. (2007). Innovationen in der schweizerischen Berufsbildung. In F. Eicker (Hrsg.), *Perspektive Berufspädagoge!? Neue Wege in der Aus- und Weiterbildung von betrieblichem und berufsschulischem Ausbildungspersonal* (Reihe Berufsbildung, Arbeit und Innovation - Konferenzen, Band 1, S. 144-162). Bielefeld: wbv.

Apprenticeship, Pathways and Career Guidance: A Cautionary Tale

Richard Sweet

*Sweet Group Pty Ltd and Centre for Post-compulsory Education and Lifelong Learning, the University of Melbourne,
11 Winslow St Kirribilli, NSW, Australia 2061*

Summary: Apprenticeship is difficult to adopt on a large scale. This is typically explained by institutional factors: regulations and legislation, social partnership, wage rates, and training cultures within the firm. Here attention is focused upon apprenticeship and the interaction between post-compulsory pathways, young people's aspirations, equity and streaming within the school system, and career guidance. In Germany and Switzerland large apprenticeship systems are associated with low aspirations for tertiary study at the age of 15, high streaming at an early age by achievement and socio-economic status, and a strong inverse relationship between equity and the size of vocational pathways. Nordic apprenticeship systems are associated with higher youth aspirations, a lower relationship between equity and pathway size, and low class- and achievement-based streaming. Career guidance in the first group of countries heavily favours low achievers at the age of 15. In Nordic countries it is provided more evenly. In all apprenticeship countries career guidance has a strong external, experiential and labour market focus.

Keywords: Apprenticeship, pathways, equity, career guidance

Apprenticeship: Policy aspirations, failures and successes

"... It is important that every community in every State of this nation develop more school-to-work programs. The best alternative is to craft an American version of European apprenticeships - not necessarily just like the German system, but one that blends vocational and academic education in high school, provides students meaningful work experience, and continues their training after graduation."

Bill Clinton, Governor of Arkansas, *Vocational Education Journal*, October 1991.

Very few OECD countries have large apprenticeship systems for their youth. Only in Germany and Switzerland do more than half of all young people appear to enter adult employment through an apprenticeship. In Austria, Denmark, Norway and the Netherlands, somewhere between a quarter and a half of young people enter into arrangements that are referred to as apprenticeships¹, although their characteristics are in many ways quite dissimilar². In Ireland the proportion of young people who enter an apprenticeship seems to be slightly lower than in the latter group of

¹ This is based on estimates contained in OECD (2000). More recent estimates of the size of upper secondary vocational pathways (school-based plus apprenticeship) are given in Table 1, but the source used to compile Table 1 does not provide a separate and reliable estimate of the size of apprenticeship pathways.

² For example in terms of: duration; the balance, timing and sequencing of enterprise-based and institutional-based periods; the balance in the curriculum between general education and vocational skills; the breadth and specificity of the occupational families that are covered; regulatory arrangements; financing mechanisms; and wage rates.

countries. Most other countries get by largely without apprenticeships, or with quite small apprenticeship systems for youth, or by relying upon other ways of achieving the same objectives. And it does not seem to do them too much harm, as Martin Carnoy has recently pointed out in comparing economic growth over a 26 year period in countries with quite different types of vocational education systems (Carnoy, 2009).

And yet despite this, apprenticeship has proven to be a seductive notion: the Rhein maiden of the policy world, luring the unwary - such as Bill Clinton - onto the hard rocks of institutional reality. The Clinton administration invested around a billion dollars in the School-to-Work Reform Act, the centrepiece of which was to be a revival of apprenticeship for youth in America. The proposal to revive youth apprenticeship followed a series of enthusiastic missions from the United States to Europe, almost exclusively to Germany, to look at apprenticeship arrangements during the 1980s and early 1990s. And yet almost nothing can be seen as a lasting outcome from this very large investment. The policy makers from the United States did not really understand what they were looking at when they went to Germany, and they failed to understand the institutional underpinnings of large apprenticeship systems for youth (OECD, 1999a). Youth apprenticeships were resisted by many in the trade union movement, as they would have competed with traditional adult apprenticeships in sectors such as construction; regulated links between occupations and qualifications were scarce; arrangements for institutional co-operation between employers, governments and trade unions often did not exist; sectoral co-operation was weak; local quality assurance arrangements for training young people within firms and for linking firms with off-the-job educational institutions were commonly absent; mechanisms for fixing training wages in relation to adult wages were often absent; legal and regulatory arrangements were missing; and apprenticeship as a federal initiative often sat uneasily with the states that saw arrangements for education and training as their exclusive constitutional responsibility. Frankly, it was bound to fail.

Other countries have had similarly unsuccessful experiences when attempting to create or revive large apprenticeship systems for youth. In the early 1990s Korea sought to imitate the German dual system of apprenticeship. The experiment failed partly because of the dominating role adopted by government and the minimal role allowed for other social partners. Another reason was the lack of a tradition of training within the workplace: training within the *chaebol*, the large enterprises that have been responsible for much of Korea's recent economic growth, is largely seen as the responsibility of special training departments. As a consequence shop-floor supervisors, who play a vital role in successful apprenticeship systems, focused largely upon production problems and did not see the development of skills in apprentices as part of their normal role (Jeong, 1995). Sweden in the late 1990s attempted to reintroduce apprenticeship after abolishing it in the early 1970s. This also failed: employers had an alternative model (mandatory unpaid work placements as part of upper secondary schooling) that they had become used to, and the initiative was targeted only upon the weakest students, rather than, as in Austria's apprenticeship system, including them as a specially targeted and resourced focus within the mainstream programme (OECD, 1999b).

These failures have not dampened the enthusiasm for apprenticeship of many policy analysts. In some influential quarters apprenticeship is still being pulled out of the cupboard as an almost exclusive solution to many of young people's school-to-work transition problems (Quintini and Martin, 2006).

Of course there have also been some successes. One is Ireland, where high completion rates, growing participation since the mid 1990s, stakeholder satisfaction and high-quality training have been attributed to a combination of: the adoption of a standards-based approach; strong social partnership between government, employers and unions; a responsive national training agency; and a responsive system for off-the-job training (Hartkamp and Rutjes, 2001; Field and Dubchair, 2001; O'Connor and Harvey, 2001; O'Connor, 2006). In Norway a quite distinctive model of apprenticeship for young people was introduced in the mid 1990s as part of sweeping reforms to upper secondary education. Although not without its problems (Payne, 2002) the reforms resulted in a very rapid growth in both youth participation and employer participation. The speed with which the reforms were accepted owes much to: effective negotiations between well-organised employers, unions and government; a rational wage structure; and the creation of intermediary organisations at the local level to assist firms in training. (OECD, 1998). And in the Middle East and North Africa, quite small and fragile experimental systems in countries such as Syria and Egypt sit alongside a robust although moderately sized apprenticeship system in Turkey that is underpinned by extensive legislation and regulation, good institutional arrangements involving employer associations, trade unions and governments, and mechanisms for co-operation between educational institutions and firms at the local level (Sweet, 2009).

The institutional arrangements that help to ensure the success or failure of apprenticeship that are illustrated by the above examples are reasonably well understood: both the “hard” factors such as legislation and regulations, training wages, financing systems, and qualification and certification arrangements, and the “soft” factors such as the quality of governance arrangements and social capital at the local and sectoral levels (see for example Ryan, 2000). For the balance of this paper I will be looking at an additional set of factors that help to underpin apprenticeship: the relationship between post-compulsory pathways, including apprenticeship pathways, on the one hand, and aspirations, equity and career guidance on the other. The analysis concentrates upon countries with large or medium-sized apprenticeship systems.

Pathways: An introduction

A pathway can be thought of as the connection between an educational programme and its destinations, mediated by a set of institutional arrangements that include qualification systems, curriculum content, labour market arrangements, and information and advice systems. The concept of a pathway as an organising framework for understanding young people’s transitions was first elaborated by Raffe (1994) and has since been developed by the OECD (2000) and in other work by Raffe (Raffe, 1998; Raffe, 2003). It was a central organising concept both for the OECD’s work on vocational education conducted in the mid 1990s, and for its thematic review of transition that was published in 2000. The concept of a pathway has been highly influential. Many OECD countries have devoted a great deal of effort in recent years to changing and attempting to improve pathways between the end of compulsory education and the work force: for example by introducing new qualifications, reforming qualification systems, and attempting to improve articulation and transfer between different pathways. An example is Switzerland’s creation of the *maturité professionnelle* that helps to open up a pathway from apprenticeship to tertiary education.

	1998	1999	2001	2002	2003	2004	2005	2006
Austria	77.5	77.9	78.6	79.0	79.2	78.6	78.5	77.9
Belgium	69.0	65.7	69.2	69.7	70.3	68.2	69.6	69.4
Czech Republic	80.0	80.2	80.7	80.4	79.5	79.4	79.5	79.3
Denmark	51.8	53.3	54.6	53.0	53.6	46.8	47.9	47.8
Finland	52.0	53.2	56.7	57.2	58.8	60.1	63.9	65.4
France	56.4	57.2	56.7	56.3	56.4	56.5	56.4	43.1
Germany	64.6	64.6	63.3	63.0	62.2	61.2	60.3	59.4
Greece	32.6	25.8	35.2	40.0	36.0	34.0	36.0	33.9
Hungary	67.4	65.5	50.2	49.7	49.8	23.7	24.1	23.7
Iceland	33.2	32.8	36.4	38.3	35.1	38.5	36.8	36.7
Ireland	17.3	20.6	25.8	27.3	28.3	33.5	34.3	33.4
Italy	64.8	64.7	64.3	64.8	63.8	62.8	61.5	60.5
Japan	26.8	26.4	25.9	25.7	25.5	24.6	24.7	24.6
Korea	40.0	37.9	34.1	32.1	30.7	29.5	28.5	27.8
Luxembourg	68.0	63.7	63.8	64.0	64.7	63.9	63.4	62.9
Mexico	14.4	14.0	12.2	11.4	10.9	10.5	10.2	9.8
Netherlands	66.0	66.6	69.9	69.2	69.1	69.1	68.2	67.5
Norway	52.5	53.6	57.6	58.0	59.2	60.5	60.8	60.0
Poland	67.6	66.1	62.1	60.9	54.3	49.5	45.0	44.0
Portugal	25.4	25.0	28.3	28.8	28.5	28.5	31.0	31.5
Slovak Republic	m	79.6	77.6	76.4	75.4	74.1	74.2	73.7
Spain	21.5	31.2	35.6	38.0	37.2	38.7	42.6	42.5
Sweden	40.6	50.1	51.7	49.6	52.9	53.4	53.6	55.1
Switzerland	65.7	65.4	65.0	64.6	65.0	64.8	64.7	64.2
Turkey	m	48.6	39.7	39.4	38.0	37.3	42.2	36.3

Table 1: Enrolments in vocational programmes as a share of all upper secondary enrolments, 1998-2006 (%) (Source: OECD *Education at a Glance*, various issues)

It is by now fairly standard to distinguish between three principal post-compulsory pathways: general education; apprenticeship-type; and school-based vocational (Raffe, 2008). In many countries these different pathways are associated with different institutional arrangements (for example gymnasia and vocational colleges) as well as with different education and training qualifications. Pathways can also be thought of in terms of the tightness of their link to later destinations (McKenzie, 2002). *Tightly coupled* pathways such as Austria's general education programmes contain a relatively small share of the cohort and nearly all graduates proceed to higher education. On the other hand more *loosely connected* pathways such as Australia's upper secondary general education programmes contain a large share of the cohort, and graduates are more widely spread across higher education, vocational education and the labour market.

Pathways sit within wider institutional arrangements for the transition, and cannot always compensate for their weaknesses. As an example, Polesel (2006) points out that while many of the features of Italy's upper secondary vocational education pathways are attractive, overall transition outcomes in that country are poor. He highlights poor quality teaching and learning and low achievement levels as significant factors. Also relevant here are unfavourable institutional arrangements in the Italian labour market, with high levels of employment protection, few opportunities for students to combine education with paid employment, few structured training opportunities, and poor institutional co-operation between the social partners.

The relative size of post-compulsory pathways is a joint outcome of the aspirations and choices of young people, of the decisions of policy makers, and of the differential rewards that pathways lead to as a result of wage fixation arrangements and other forms of labour market regulation. Their attractiveness and size can change over time as the result of all of these factors. Table 1 illustrates this by showing changes between 1998 and 2006 in the proportion of upper secondary students in vocational education (as opposed to general education) programmes in 25 OECD countries. Finland, Ireland, Norway and Spain are examples of countries in which vocational pathways have been growing. In Hungary, Korea and Poland they have been declining sharply, and have declined slightly in Denmark and Germany. Austria, the Netherlands and Switzerland are among the countries in which there has been little apparent change.

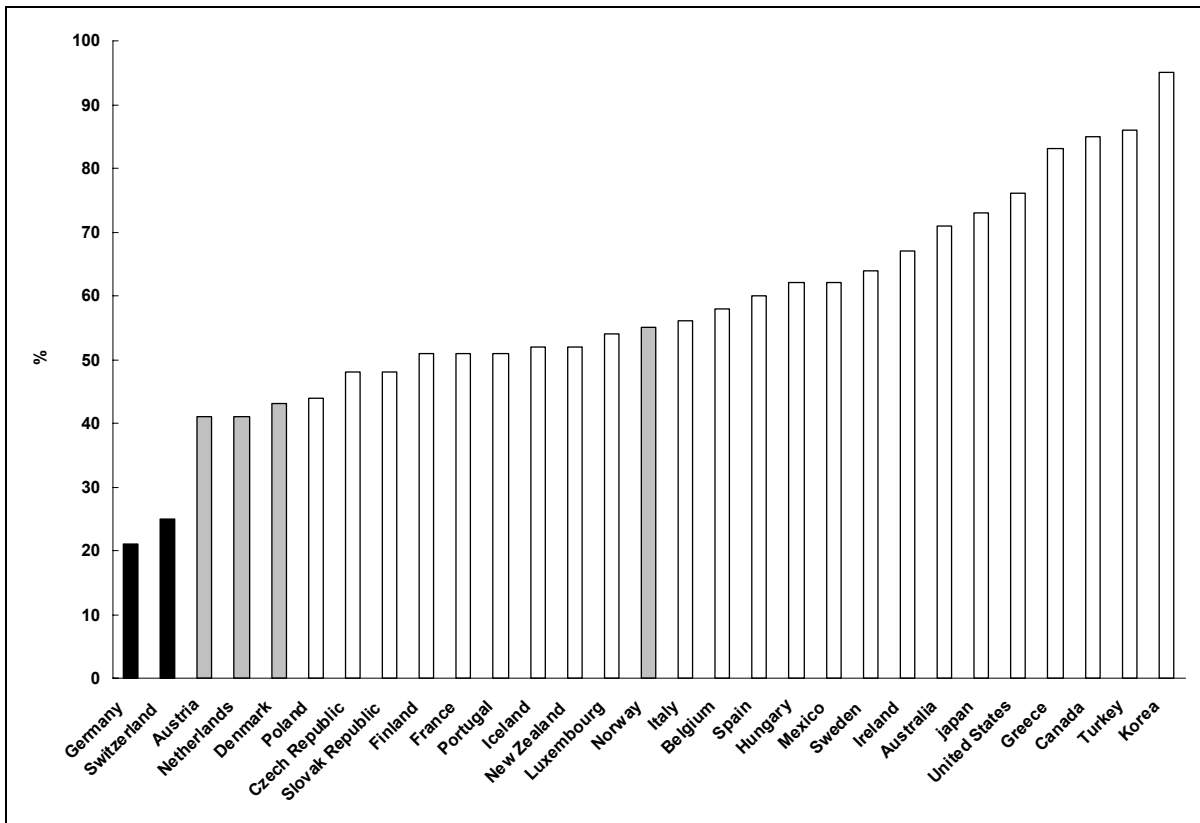
Pathways, aspirations and equity

Different types of pathways contain different types of students. This is a result both of students' choices and of the operation of streaming: for example through allocation to programmes by educational attainment or achievement, or as a result of advice and guidance whether from family, friends, teachers or career guidance. Almost universally general education pathways that lead to higher education contain higher-achieving students from more privileged family backgrounds and they lead to jobs that carry higher economic rewards. The OECD's PISA data (OECD, 2008a) shows that in all countries for which this type of data is available, those young people who enter vocational pathways have on average a lower socio-economic status level and lower achievement levels than those who enter general tracks. Furthermore, it clearly shows that where countries segment these vocational education programmes into different pathways, lower level programmes on average contain more of those from lower socio-economic status backgrounds and more with lower achievement scores than do the higher level programmes. After taking these factors into account, Ryan (1998), in a now classic paper on apprenticeship returns, suggests that there is not much basis for favouring apprenticeship over school-based vocational pathways when considering their outcomes, although there are some country-specific exceptions. In a later paper he argues that there is limited evidence favouring better outcomes from vocational pathways than from general pathways (Ryan, 2003).

The size and character of pathways are shaped both by policy makers' decisions and by young people's and their parents' aspirations and choices. But aspirations can in turn be shaped by policy instruments such as streaming mechanisms and limitations on choice by restrictions on places and resources, as well as by the ways in which information and advice open up or constrain opportunities. Figure 1 shows the proportion of 15 year-olds who aspired to some form of tertiary education in OECD countries in 2003.

National differences in young people aspirations are very large indeed, and the pattern of these differences suggests that the size and nature of dominant national post-compulsory pathways has something to do with this. In Germany and Switzerland, the two OECD countries that have the largest apprenticeship systems for youth, only around one in five to one in four of all 15 year-olds expect to achieve a tertiary qualification. And in Austria, the Netherlands and Denmark, which have moderately large apprenticeship systems, the proportion of 15 year-olds aspiring to tertiary education is also relatively low. On the other hand high levels of aspiration for tertiary study are found in countries such as Korea, Japan, Canada and the United States where upper secondary vocational pathways are quite small. In no country

with a substantial apprenticeship system do more than three-quarters of all 15 year-olds aspire to enter tertiary education, and generally this figure is half or less.



Source: PISA 2003 database, special tabulation

Figure 1: 15 year-olds aspiring to at least some form of tertiary education, 2003 (%)

Differences in countries' characteristic post-compulsory pathways are also related to national differences in equity structures. This can be illustrated using two sets of data. Drawing upon PISA 2006 data on science achievement, Figure 2 shows the extent to which 15 year-olds' in OECD countries are streamed into schools by achievement level and by socio-economic status. The Y axis shows the level of between-school (as opposed to within-school) variation in science performance. This is an indication of the extent to which high- and low-achievers are clustered in different schools. The X axis shows the proportion of the between-school variance in performance that can be explained by an index of family socio-economic status. This is an indication of the extent to which students from wealthy and poor backgrounds are clustered in different schools.

Germany and Switzerland, both of which have large apprenticeship pathways, and Austria, which has a medium-sized apprenticeship pathway, each fall in the quadrant characterised by a school system in which streaming is high both by achievement level and by family socio-economic status. In the Netherlands, which like Austria has a medium-sized apprenticeship system, streaming is high by achievement, but not as strong by socio-economic status. On the other hand in Norway and Denmark, which have medium-sized apprenticeship systems, streaming is low both by achievement and by socio-economic status.

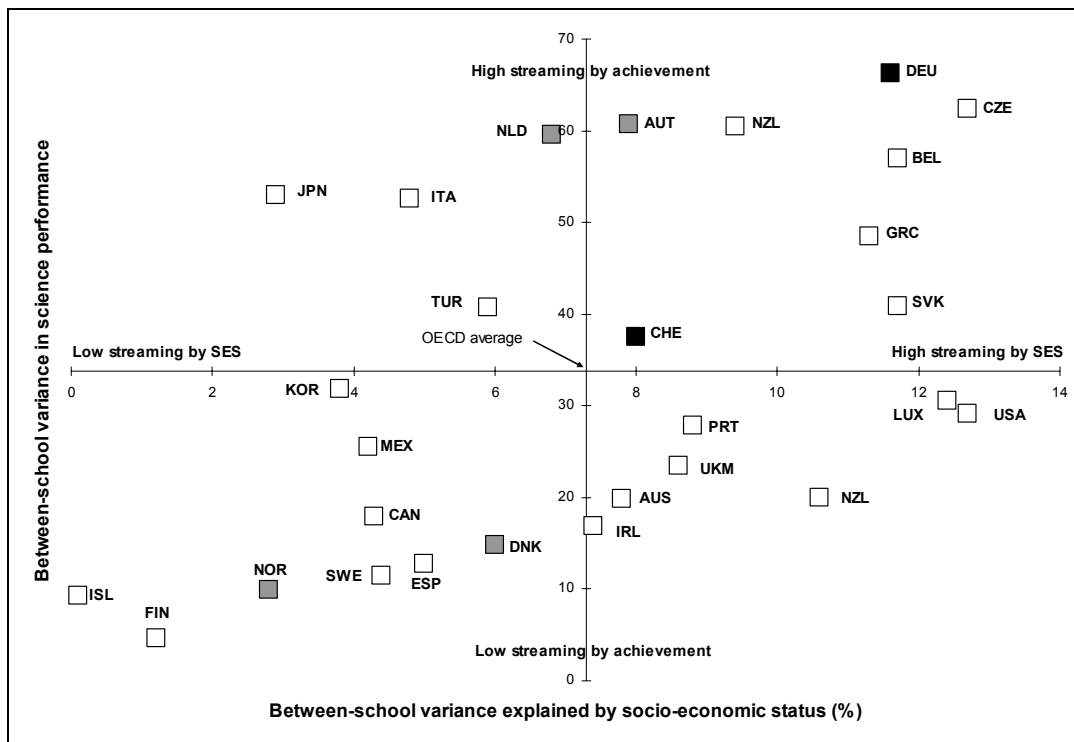


Figure 2: Streaming of 15 year-olds by achievement and socio-economic status, 2006³
 (Source: OECD (2008b), Table 4.1a)

Figures 3 and 4 show a more direct relationship between equity and the size of post-compulsory pathways. Figure 3 shows the relationship between the proportion of upper secondary students who are in vocational programmes and the proportion of the variance in student achievement on the PISA 2006 science scale that can be explained by an index of family socio-economic status. The top right hand quadrant shows a group of countries in which equity is low, with family economic resources having a high impact upon performance, and where vocational pathways are large. This group includes Germany, Switzerland, Austria and the Netherlands. The countries in this quadrant also tend to be characterised by quite early streaming within the education system.

The top left hand quadrant contains a group of countries such as Finland, Norway and Sweden in which vocational pathways are also relatively large, but in which the impact of family background or socio-economic status upon achievement is much lower. All are countries in which the first point of tracking within the school system occurs at a later age – generally 16 – than is generally the case in countries in the top right quadrant. In the countries in the bottom left hand quadrant family background has a low impact upon achievement, and vocational pathways include relatively few youth. Among them are Canada, Japan, Korea and Iceland.

Figure 4 relates the same equity indicator used in Figures 2 and 3 to the proportion of 25-34 year-olds who have attained a tertiary qualification. It gives a similar message: countries with small tertiary education systems tend to be those where vocational pathways, including both apprenticeship pathways and school-based vocational pathways, are large, where early class- and ability-based differentiation occurs within the school system, and where equity is low. The largest tertiary systems tend to be found in countries where equity is high.

³ Annex 1 shows the country codes used in Figures 2 - 4.

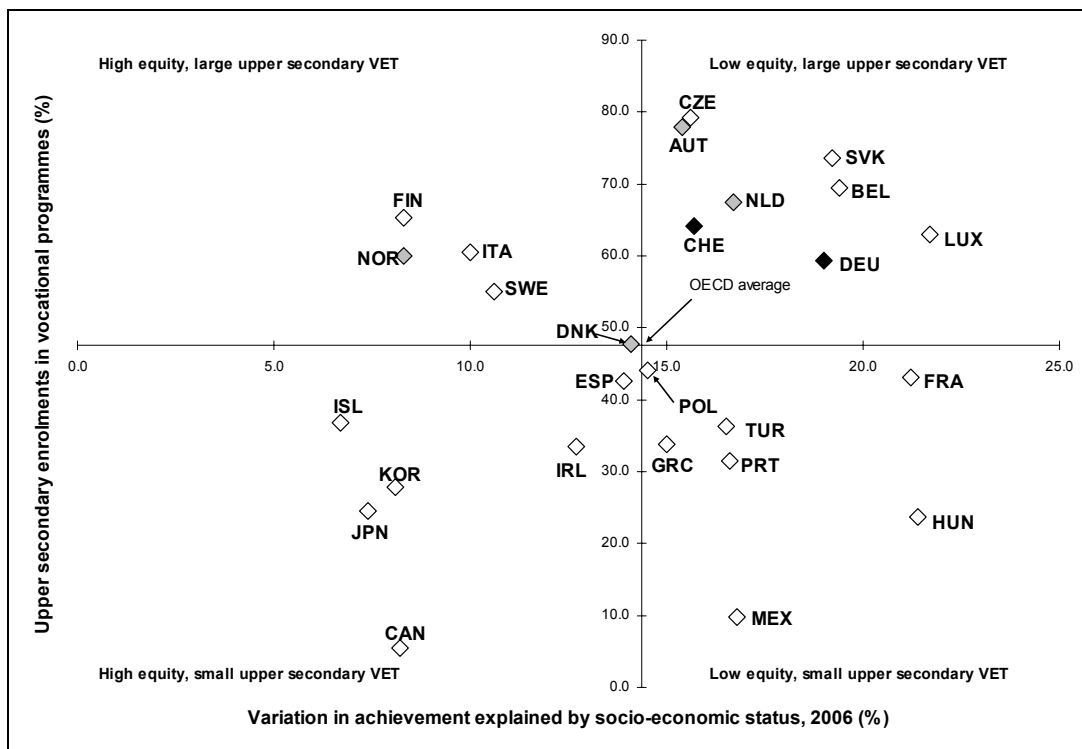


Figure 3: Equity and the size of upper secondary vocational pathways, 2006⁴
 (Sources: OECD PISA 2006 database and *Education at a Glance* 2008)

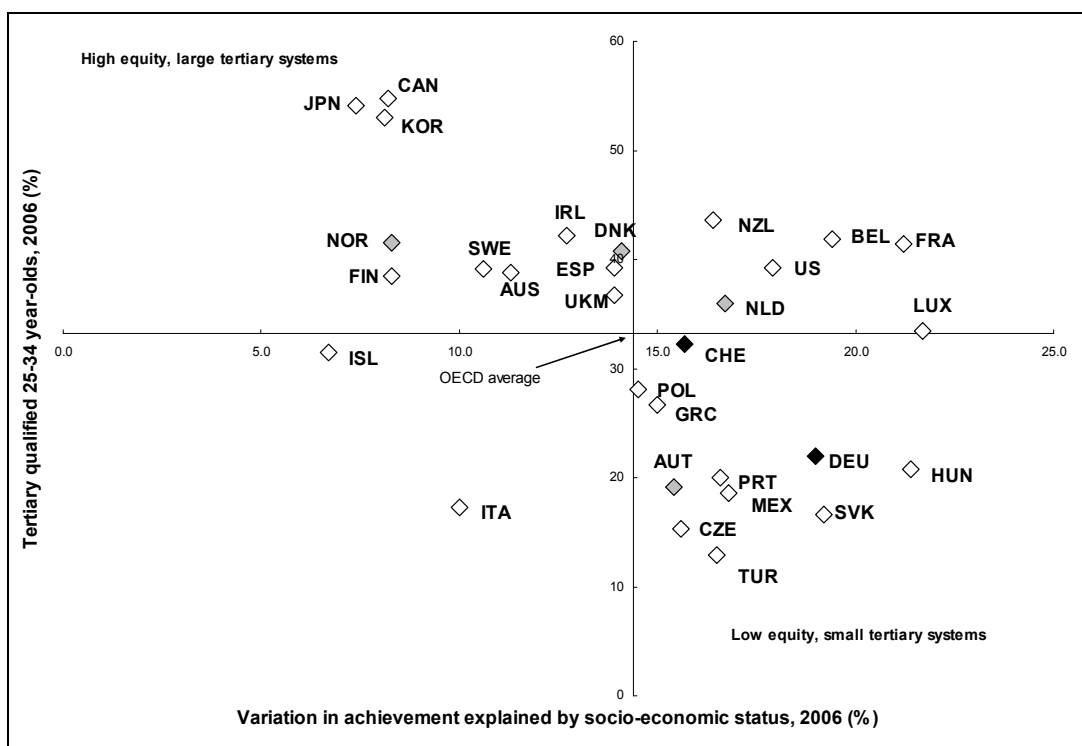


Figure 4: Equity and the size of tertiary pathways, 2006
 (Sources: OECD PISA 2006 database and *Education at a Glance* 2008)

⁴ Annex 1 shows the country codes used in Figures 1 and 2.

Career guidance and pathways

The OECD (2000) has identified career guidance as one of the key features of effective transition systems. As implied in the above discussion, it is one of the institutional factors that can help to determine the character, quality and effectiveness of post-compulsory pathways. International interest in the link between career guidance and public policy objectives – particularly those that relate to lifelong learning, active labour market policies and equity – has been growing rapidly in recent years, largely as an outcome of major reviews of national career guidance policies conducted by the OECD, agencies of the European Union, and the World Bank (OECD, 2004; Sultana, 2004; Watts and Fretwell, 2004). One consequence of this rising interest by policy makers has been an improvement in the evidence base that can help us to understand how career guidance relates to public policy objectives. Much of this evidence has been qualitative and descriptive in nature. However quantitative data is increasingly becoming available, and it is available in data sets that allow career guidance questions to be related to variables such as student achievement and socio-economic status that are important for policy purposes. In my own country, for example, items relating to career guidance have been included in the surveys developed for the major Australian longitudinal studies of youth in transition (Rothman and Hillman, 2008). At the international level the inclusion of items referring to career guidance in the PISA 2006 school questionnaire has provided an opportunity to gain a comparative perspective on career guidance issues⁵.

The data on career guidance provided by PISA 2006 does have limitations, and it is important to be realistic about these. Career guidance was not defined in the school questionnaire and so could encompass widely different programmes and activities; it was gathered from school principals rather than from students themselves and therefore cannot say anything about variation in access and provision within schools⁶; and it has been gathered from 15 year-olds, and thus cannot say anything about career guidance provision in the post-compulsory years⁷. Nevertheless it is a substantial improvement on the quality and availability of comparative career guidance data that had existed previously, and it has the potential to greatly increase our understanding of comparative issues in career guidance provision.

Here, the main question of interest is whether the existence of a large or medium-sized national apprenticeship pathway seems to be related to:

- Whether or not career guidance is provided;
- Who is more likely to be provided with career guidance; and
- How career guidance is provided.

Provision levels

⁵ Question 23 asks about participation in job fairs, lectures by business representatives and visits to local businesses; Question 28 asks who is responsible for career guidance in the school (for example all teachers or specific career guidance counsellors); and Question 29 asks whether career guidance is voluntary or formally scheduled into students' time at school.

⁶ This is likely to be a greater limitation in countries such as Denmark where between-school variation in achievement is small than in countries such as Germany where between-school variation in performance is large.

⁷ This will be a greater limitation in countries where schooling does not start to become differentiated until the age of 16 or later than in countries such as Germany and Austria where differentiation begins at an early age.

Figure 5 shows the proportion of schools in which career guidance is formally scheduled into students' time rather than being voluntary. There does not appear to be a systematic relationship between this and the existence of substantial apprenticeship systems. Nor does it seem to be systematically related to the size of countries' post-compulsory vocational education pathway. In Austria and Germany only around half of all schools formally schedule career guidance, which is relatively low compared to other OECD countries. On the other hand in Denmark, Norway and the Netherlands 80% or more of schools make career guidance compulsory, as do around 70% of schools in Switzerland.

Who is more likely to be provided with career guidance?

Although it is not possible to use PISA data to look at levels of career guidance provision within schools, it is possible to look at some of the characteristics of schools in which career guidance is compulsory rather than voluntary. Given the previous discussion of pathways, two key school characteristics that are assessed in PISA are relevant. These are the average achievement level of a school's students, and the extent to which teachers in the school concentrate upon developing in students the knowledge and skills that will help them in tertiary education. Schools in which the average achievement level of students is low are likely to be those in which students who enter vocational pathways are concentrated; schools in which teachers see tertiary- related knowledge and skills as focal to their work rather than incidental are likely to be those in which students in or headed for general education pathways are concentrated.

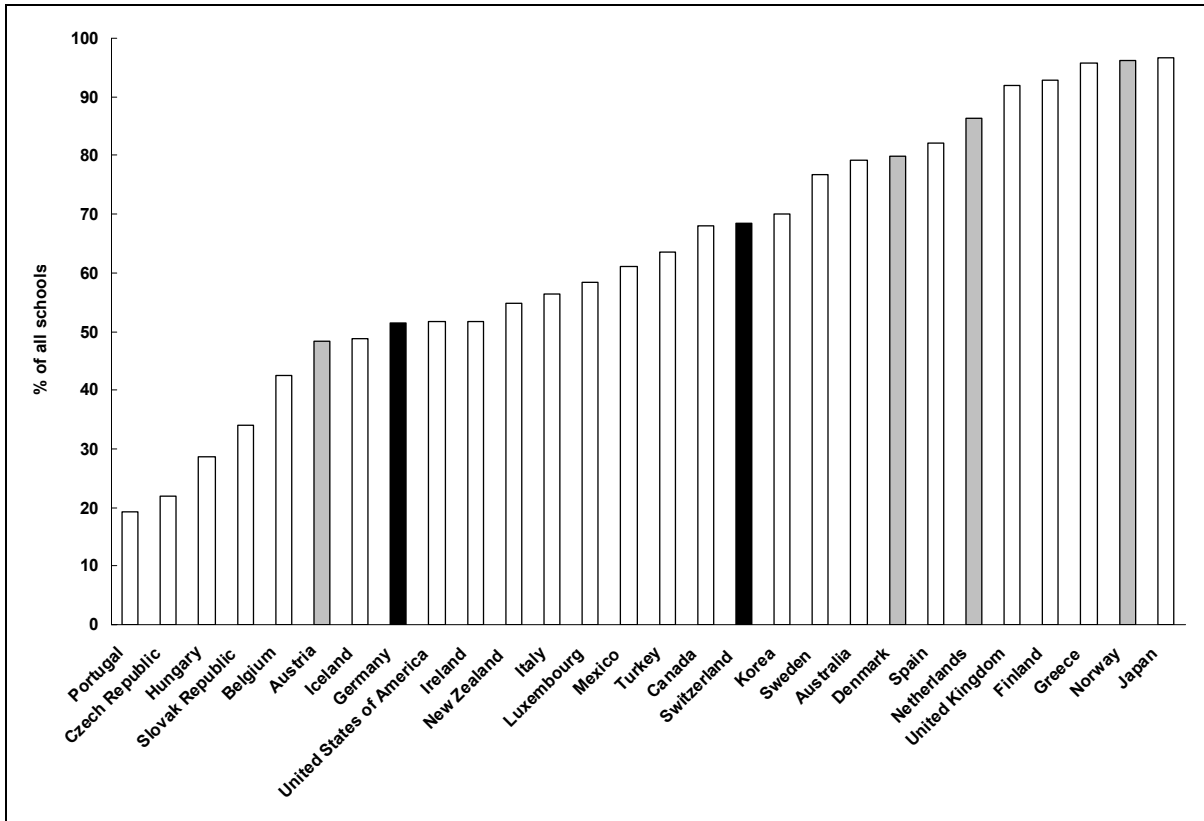


Figure 5: Schools in which career guidance is compulsory, 2006 (%)
 (Source: PISA 2006 database)

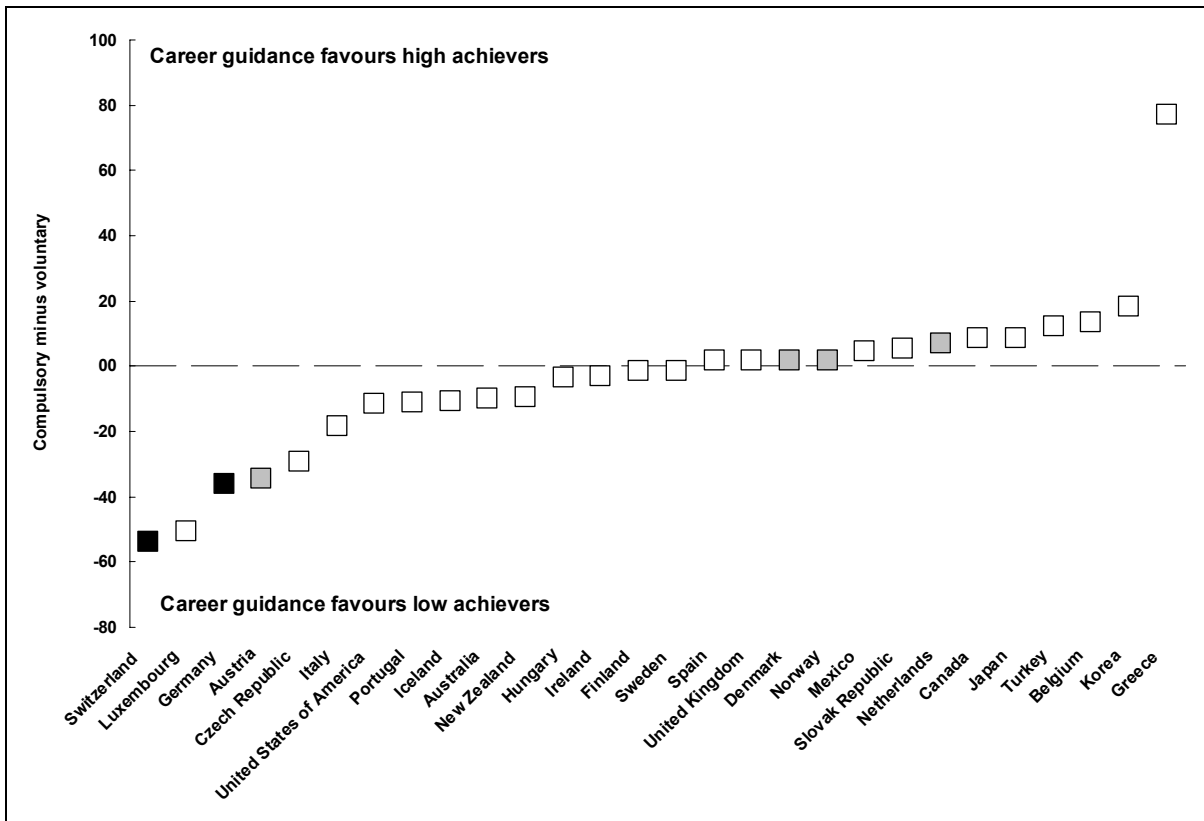


Figure 6: Difference between mean science achievement scores in schools where career guidance is compulsory and schools where it is voluntary (Source: PISA 2006 database)

Both sets of data suggest that in countries with large apprenticeship systems career guidance for 15 year-olds is more heavily focused upon low achievers likely to enter vocational pathways than it is upon high achievers likely to enter general education tracks. In Switzerland, Germany and Austria the average achievement level of students in schools where career guidance is compulsory is substantially lower than in schools where it is voluntary (Figure 6). In Switzerland, Austria and Germany career guidance is more likely to be provided when teachers' focus upon tertiary knowledge and skills is incidental, and less likely to be provided when these are a central focus of their work (Figure 7). In Denmark and Norway, however, career guidance provision is more likely to be neutral with respect to both the average achievement level of students or teachers' concentration upon tertiary knowledge and skills.

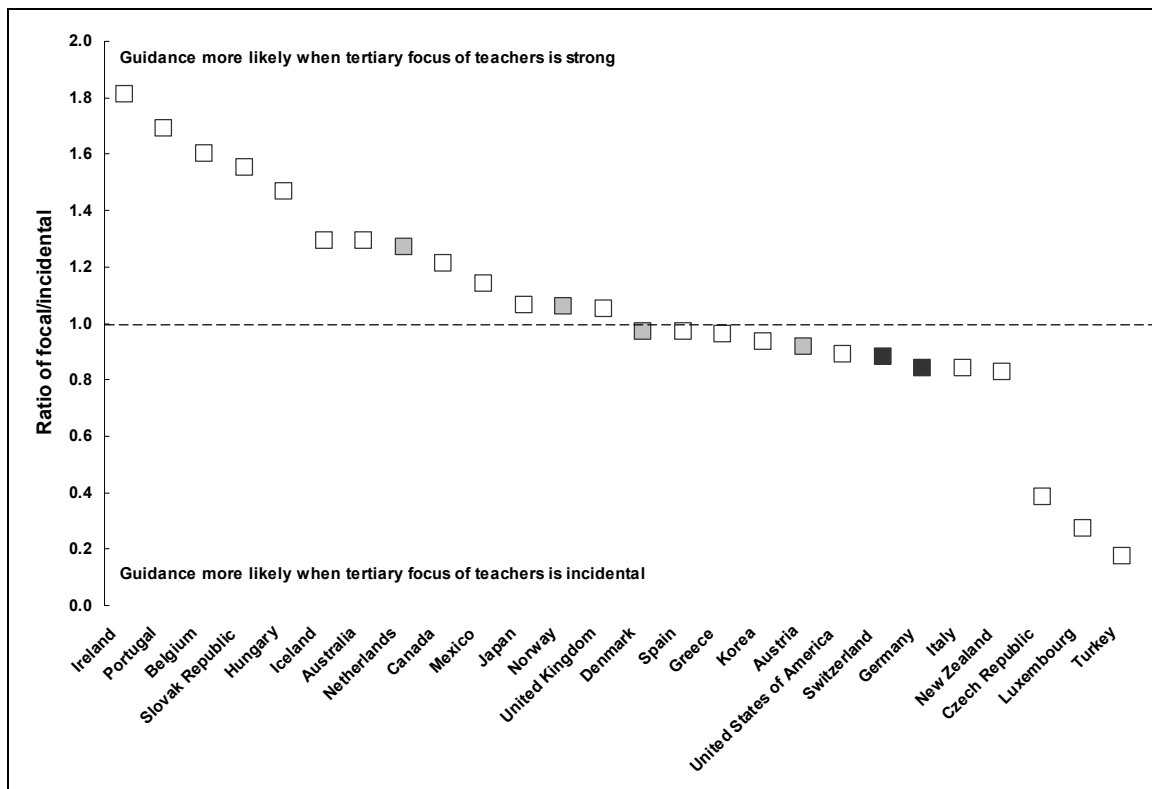


Figure 7: Teachers' tertiary focus and career guidance provision (Source: PISA 2006 database)

How is career guidance provided?

International reviews (see for example OECD, 2004) indicate that where career guidance is infused throughout the curriculum and made the responsibility of all teachers rather than being provided by specialist staff, whether teachers or career guidance counsellors, provision can be patchy, that at times this model can be adopted to suit teachers rather than student needs (as in Austria) and that it requires strong leadership and co-ordination if it is to work. The provision of career guidance by external specialist career counsellors can risk guidance being disconnected from the curriculum, but brings as a strength an increased connection to the realities of the labour market. External services also have the advantage of being more likely to be impartial and independent of the self-interest of the school. International reviews also indicate that best practice in career guidance for youth is characterised by the involvement of people external to the school such as employers, and by the provision of opportunities for experiential learning, either inside or outside of the school. Each

of these aspects of career guidance provision can be examined using PISA 2006 data.

	No guidance is provided or all teachers are responsible	Specific school teachers or counsellors are employed	Visiting counsellors provide it
Australia	2.8	92.5	0.8
Austria	35.8	57.2	a
Belgium	65.4	19.1	9.5
Canada	8.1	80.5	2.4
Czech Republic	5.7	88.8	2.3
Denmark	1.0	51.5	45.7
Finland	0.0	97.8	m
Germany	8.0	43.7	27.2
Greece	47.6	46.0	3.4
Hungary	50.2	43.5	1.8
Iceland	9.5	81.6	4.4
Ireland	3.6	91.4	a
Italy	43.3	51.0	0.8
Japan	37.7	61.5	m
Korea	70.9	22.6	3.8
Luxembourg	15.6	77.7	a
Mexico	45.6	45.0	1.2
Netherlands	9.1	73.4	8.9
New Zealand	3.1	90.4	m
Norway	3.6	92.9	0.2
Portugal	9.7	80.1	7.8
Slovak Republic	15.1	84.4	a
Spain	4.6	90.4	0.4
Sweden	1.3	88.8	8.4
Switzerland	32.9	35.4	15.3
United Kingdom	1.3	50.1	40.7
United States of America	17.1	76.4	1.3

m. Missing. a. Values contained in another cell.

Table 2: Responsibility for providing guidance (per cent of all schools), 2006

(Source: PISA 2006 database)

Table 2 shows the proportion of schools that report that career guidance is: either not provided or provided by all teachers; provided by specific teachers or specific career guidance counsellors employed by the school; or provided by visiting career guidance counsellors. It shows that in Austria and Switzerland career guidance is more likely than in many other OECD countries either not to be provided or to be provided by all teachers, but that this is not the case in other countries with large or reasonably large apprenticeship systems. In both Switzerland and Germany specific teachers or counsellors are less likely to be employed to provide career guidance, and in Denmark and Austria somewhat less so. In Switzerland, Germany and Denmark career guidance is substantially more likely than in most other countries to be provided by an external service.

The PISA 2006 school questionnaire contains three items that examine the extent to which people external to the school and experiential learning are part of schools' careers work. These are the frequency⁸ of student participation as a normal part of schooling in job fairs, lectures at school by business or industry representatives, and visits to local businesses or industries. Using these items a composite index has been constructed with a range from zero (which would represent no external or experiential involvement) to 100 (which would represent all students participating in each type of activity more than once a year). This index is shown in Figure 8. Although a strong external and experiential focus in school careers guidance programmes is not exclusive to countries that have strong apprenticeship pathways, it does seem as if this is characteristic of nearly all such countries.

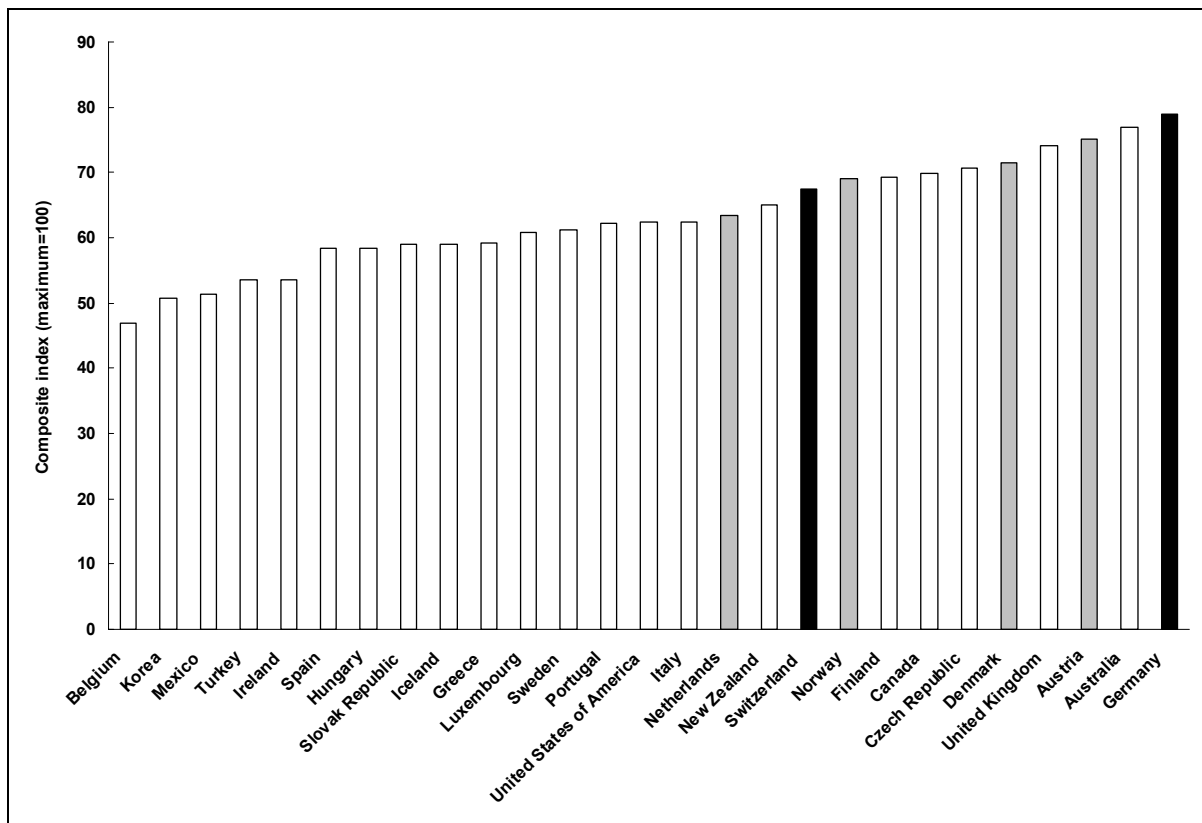


Figure 8: External and experiential focus of schools' careers programme
(Source: PISA 2006 database)

Discussion

Part of the rationale for career guidance as a publicly-funded activity rests upon the role that impartial information and advice can play in helping to ensure that people make decisions that maximise the ways in which talent is allocated in society. It also rests upon the importance on equity grounds of ensuring that the disadvantaged, those who are information-poor and those who lack social capital in the form of networks and contacts can receive advice, information and guidance that will open up opportunities that otherwise might be constrained by social background (OECD, 2004). The dominant ideologies of career guidance practitioners also support

⁸ On a scale of Never, Once a year, and More than once a year.

practices based upon self-actualisation and the maximisation of potential rather than social control and support for existing inequalities (Watts, 1996). On both grounds career guidance which is relatively neutral with respect to post-compulsory pathways would be expected.

The large apprenticeship systems of Germany and Switzerland are underpinned by streaming at an early age into tracks that lead to large vocational education pathways and small tertiary education pathways. This streaming is strongly based upon achievement and social class, and results in a very small proportion of young people, compared to other OECD countries, aspiring to tertiary study by the age of 15. On the other hand the somewhat smaller apprenticeship systems of Denmark and Norway are built upon school systems that remain relatively undifferentiated, whether by achievement, social class, or eventual pathway, until the age of 16. They are associated with somewhat higher tertiary aspirations by young people, somewhat smaller post-compulsory vocational pathways, and somewhat larger tertiary pathways. These differences can be shown to be associated with higher rates of intergenerational mobility in Denmark and Norway than in Germany (Blanden et al., 2005). Austria and the Netherlands, whose apprenticeship systems are roughly comparable in size to those of Denmark, tend fall somewhere between these extremes.

There appears to be no systematic relationship between the size either of national post-compulsory pathways or the size of apprenticeship pathways on the one hand, and the extent to which 15 year-olds receive career guidance on the other. However the character of career guidance does seem somewhat different in countries that have large or medium-sized apprenticeship systems, with a somewhat stronger emphasis upon external support, experiential learning and labour market relevance.

Furthermore, career guidance provision does seem to differ in its targeting and in its character as a function of the relationship between equity and post-compulsory pathways, although the extent of these differences should not be exaggerated. In Switzerland, Germany and Austria career guidance at the age of 15 appears to be far more heavily focused upon low achievers than is the case in other OECD countries. This can also be observed in Luxembourg and the Czech Republic, which are also characterised by large vocational education systems, early differentiation within the school system, and strong inverse relationships between equity and vocational pathways. On the other hand in Denmark and Norway differences in career guidance provision at the age of 15 as a function of the achievement level or tertiary orientation of the school are not apparent⁹.

These differences raise questions about whether career guidance is a necessary or simply an incidental underpinning of the relationship that exists in these countries between pathways and equity, and of the role that it might play in shaping rather than widening aspirations.

References

- Blanden, J., Gregg, P. and Machin, S. (2005): *Intergenerational Mobility in Europe and North America*, Centre for Economic Performance, London School of Economics.
- Carnoy, M. (2009): "VET in the new global economy", presented at an Interdisciplinary Congress on Research in Vocational Education and Training, Bern, <http://www.ehb-schweiz.ch/en/researchanddevelopment/vet2009/Pages/default.aspx>

⁹ This does not, of course, preclude differences in provision existing within schools.

- Field, J. and Dubchair, M. (2001): "Recreating apprenticeship: lessons from the Irish standards-based model" *Journal of Vocational Education and Training*, Vol. 53, No. 2, pp. 247-262.
- Hartkamp, J. and Rutjes, H. (2001): *Apprenticeship in Ireland, the Netherlands and Scotland: Comparison of Trends*, TSER Working Papers, Amsterdam, DESAN.
- Jeong, J. (1995): "The failure of recent state vocational training policies in Korea from a comparative perspective" *British Journal of Industrial Relations*, Vol. 33, No. 2, pp. 237-252.
- McKenzie, P. (2002): "Pathways for youth in Australia", in Burke, G. and Reuling, J. (Eds.) *Vocational Training and Lifelong Learning in Australia and Germany*, National Centre for Vocational Education Research, Adelaide.
- O'Connor, L. (2006): "Meeting skill needs of a buoyant economy: apprenticeship – the Irish experience", *Journal of Vocational Education and Training*, Vol. 58, No. 1, pp. 31-46.
- O'Connor, L. and Harvey, N. (2001): "Apprenticeship training in Ireland: from time-served to standards based: potential and limitations for the construction industry" *Journal of European Industrial Training*, Vol. 25, No. 6, pp. 332-342.
- OECD (1998): *Thematic Review of the Transition from Initial Education to Working Life. Country Note: Norway*, Paris.
- OECD (1999a): *Thematic Review of the Transition from Initial Education to Working Life. Country Note: United States of America*, Paris.
- OECD (1999a): *Thematic Review of the Transition from Initial Education to Working Life. Country Note: Sweden*, Paris.
- OECD (2000): *From Initial Education to Working Life: Making the Transition Work*, Paris.
- OECD (2004): *Career Guidance and Public Policy: Bridging the Gap*. Paris.
- OECD (2008a): *VET in PISA: Results from PISA 2003 and 2006*, EDU/EDPC/CERI(2008)5, Paris.
- OECD (2008b): *PISA 2006 Volume 2: Data*, Paris.
- Payne, J. (2002): "Reconstructing apprenticeship in the twenty-first century: lessons from Norway and the UK", *Research Papers in Education*, Vol. 17, No. 3, pp. 261-292.
- Polesel, J. (2006): "Reform and reaction: creating new education and training structures in Italy", *Comparative Education*, Vol. (42 (4)), pp. 549-562.
- Quintini, G. and Martin, S. (2006): *Starting well or losing their way? The position of youth in the labour market in OECD countries*, OECD Social, Employment and Migration Working Papers, No. 39, Paris.
- Raffe, D. (1994): "Compulsory education and what then? Signals, choices and pathways", in OECD (1994) *Vocational Education and Training for Youth: Towards Coherent Policy and Practice*, Paris.
- Raffe, D. (1998): "Where are pathways going? Conceptual and methodological lessons from the pathways study", in OECD (1998), *Pathways and Participation in Vocational and Technical Education and Training*, Paris.
- Raffe, D. (2003): "Pathways linking education and work: A review of concepts, research and policy debates", *Journal of Youth Studies*, Vol. 6 (1), pp. 3-19.
- Rothman, S. and Hillman, K. (2008): *Career advice in Australian secondary schools: Use and Usefulness*, Longitudinal Surveys of Australian Youth Research Report 53, Melbourne: Australian Council for Educational Research.
- Ryan, P. (2000): "The institutional requirements of apprenticeship: evidence from smaller EU countries", *International Journal of Training and Development*, Vol. 4, No. 1, pp. 42-65.
- Sultana, R.G. (2004): *Guidance Policies in the Knowledge Society: Trends, Challenges and Responses across Europe*. Thessaloniki: CEDEFOP.
- Sweet, R. (2009): *Work-based Learning Programmes for Young People in the Mediterranean Region*, European Training Foundation, Turin.
- Watts, A.G. (1996): "Socio-political ideologies in guidance", in Watts, A.G. et al. (Eds) *Rethinking Careers Education and Guidance: Theory, Policy and Practice*, Routledge, London, pp. 351-365.
- Watts, A.G. and Fretwell, D. (2004): *Public Policies for Career Development: Policy Strategies for Designing Career Information and Guidance Systems in Middle-Income and Transition Economies*. Washington, DC: World Bank.

Annex: Country codes used in figures

<u>Code</u>	<u>Country</u>	<u>Code</u>	<u>Country</u>	<u>Code</u>	<u>Country</u>
AUS	Australia	FRA	France	NLD	Netherlands
AUT	Austria	GRC	Greece	NOR	Norway
BEL	Belgium	HUN	Hungary	NZL	New Zealand
CAN	Canada	IRE	Ireland	POL	Poland
CHE	Switzerland	ISL	Iceland	PRT	Portugal
CZE	Czech Republic	ITA	Italy	SVK	Slovak Republic
DEU	Germany	JPN	Japan	SWE	Sweden
DNK	Denmark	KOR	Korea	TUR	Turkey
ESP	Spain	LUX	Luxembourg	UKM	United Kingdom
FIN	Finland	MEX	Mexico		

Vocational Identity and Flexible Work: A Contradicting or Constructive Relation?

Walter R. Heinz

*Bremen International Graduate School of Social Science (BIGSSS),
University of Bremen, Germany*

Summary: Constructing and adapting vocational identity in a changing work environment has become a lifelong challenge. Integrating flexible work demands into one's identity accompanies the modern employment biography. A self-verification model of identity is introduced in order to illuminate the integration of work experiences into one's self-identity, including the various aspects of vocational competence. This model implies that vocational identity cannot be explained by reference to the social context of work, it is rather a subjective accomplishment. The new type of "entployee" is discussed in order to show the ambivalence of a self-directed shaping of the contingent work life course in uncertain times. A promising framework for analyzing identity development in the context of VET must include work conditions and their change, sources of vocational commitment, the options of combining working and learning, and the workers' competence profile. It is argued that pro-active competences require work environments with a high degree of freedom for occupational self-socialization. The results of qualitative studies are discussed in order to fill the theoretical framework with empirically grounded data.

Keywords: Identity as self-verification; competence; vocational self-socialization.

Introduction

In changing societies, constructing and restructuring work careers and remaking one's vocational identity is a lifelong challenge. Today, transitions from vocational education and training (VET) to employment and subsequent careers are characterized by flexible work and discontinuous employment which may very well challenge and devalue vocational identity. Furthermore, there is a decline of collective frameworks supporting vocational identity and the pressure to individually redirecting careers. However, depending on the opportunity of self-direction in VET and work, skilled workers can actively modify, innovate and even reject assignments which do not recognize their capabilities and restrict their life planning.

Is it possible to develop and maintain a vocational identity in a world of deregulated labour markets, multi-skilled jobs, and flexible employment? Does a regulated education and training pathway, like the German VET, still provide comparative advantages for coping with the new brave world of knowledge-intensive and team based work? When does vocational identity become an asset for one's biography, which aspects of work are suitable anchors for constructing identity and how do apprentices and young skilled workers adjust their skill profile to the shifting demands at work?

I begin with a rhetorical question in order to profile the virtues of vocational identity: Do bankers, stock traders, and investment brokers have a vocational identity? Economists tend to explain the global financial crisis as a systemic failure

due to the lack of regulative mechanisms. This may be true in an abstract sense; but there were individual actors, too, who defined their occupation in an extremely egocentric way, driven by the expectation of high bonus payments resulting from high risk speculations. Their identity seems to be organized around uncritical self-esteem and self-indulgence that do not take into account social responsibility and sound moral judgement; after all, they were mishandling immense sums of money on behalf of their clients. Vocational identity refers to just the contrasting competences of acting in a responsible manner (“honesty”) based on qualifications and work experience that are embedded in a system of quality standards.

There are more questions than empirically sound answers. Nevertheless, I'll attempt to show possible ways of finding preliminary answers:

First, I discuss selected social psychological and sociological approaches for understanding the process of identity construction. Second, by looking at the wider benefits of VET and work experience, the various dimensions of vocational competence for shaping one's work biography are highlighted. Third, the properties of a work-centred life course will be outlined by referring to a new type of the entrepreneurial employee, the “entreplooyee”.

Fourth, qualitative empirical evidence for the impact of different occupational contexts on stability and change of work-related identity will be discussed, referring to job profiles which represent various mergers of practical, technical, social and knowledge-based skills. These contexts imply unequal opportunities of self-directed work and of shaping coherent occupational biographies.

Identity as the competence of self-verification

Historically, the notion of having an identity referred to the uniqueness of a person, and the freedom to realize oneself through the autonomous shaping of one's own life. In the last century, many concepts of identity were proposed, most prominent the one's by Erikson (1981) in the tradition of Sigmund Freud, and by Habermas (1976) in the tradition of George H. Mead.

In contemporary sociology and social psychology “identity” refers to the self-localization of the person; the consciousness and feeling of being oneself across all changes in life. Identity, as the subjective reflection on oneself, is constructed by reference to three dimensions: internal consistency, social embedding, and biographical continuity (Hoff 1990). Integrating these dimensions is a lifelong process of self-reflexive comparisons of experiences of objective conditions guided by the claim of self-determination or autonomy. Internal consistency is supported by stable living circumstances, in modern society, however, with its rapid social changes experiences of inconsistency are the rule. Just take the example of tensions between work and family or education and employment, life spheres which are increasingly difficult to reconcile. Social embedding means first of all, to see oneself through the eyes of others, including one's own and the others' working and living models. These experiences highlight the objective and subjective sides of inequality in regard to being socially included or excluded, and the feelings of uniqueness, in its extreme form of egocentrism, and of solidarity. Finally, there is the consciousness of biographical continuity concerning occupational career, family and friendship relations. Nowadays, however, discontinuity is the rule, stemming from biographical breaks which may lead to psychosocial crisis that initiate efforts to restructure identity.

Thus, in contrast to conventional identity models, which presuppose a stable sequence of identity development, rooted in childhood, a model adequate to

individualized and highly differentiated society outlines identity as “self-identity” (cf. Giddens 1991), resulting from a lifelong process of integrating experiences of inconsistency, social inequality, and discontinuity in a self-reflexive manner.

Besides designating a common identification with a social group (“social identity theory”, Tajfel 1982), identity refers to the meanings persons attach to the multiple social roles they enact (Mead 1934, Stryker and Burke 2000). Persons develop their own identity standards that are guidelines for the perception of situations and social expectations. Self-verification results when self-relevant experiences are coordinated with the identity standard. This highlights that individual agency is implied in the process of self-verification. Applied to the relationship between personality and work, active matching of subjective standards with flexible work conditions has become the rule. A mismatch between occupational placement and vocational identity standards will create the perception of discrepancy which may lead to anger and the intent to change one’s work circumstances. If this is not possible, distress and depression may result. Integrating changing work experiences into one’s vocational identity thus accompanies the modern occupational life course which poses recurrent challenges to self-verification.

This model predicts that a person’s identification with her or his occupation will be stable across time and space as long as self-perception and job performance are embedded in work conditions that people are committed to. When restructured work requires a redefinition of a person’s skills and employment biography, not just vocational commitment is at stake, but also the integrative capacity of self-identity is called upon.

When the problem of verifying the vocational identity persists, there will be a step-wise reduction of commitment to that vocation and its organizational context. This raises the issue of resources for maintaining or regaining identification with the content and conditions of flexible work. Occupational experience, learning capacity and the location in the economic structure influence which resources a skilled worker can use for self-verification in a volatile labour market.

A successful adaptation also depends on the recognition by others, family and colleagues, how they respond to identity claims, and on the capacity of performing actions that modify the situation in order to match perception with standards of self-esteem. This model implies that vocational identity cannot be explained by referring only to the social context of work, it rather is, following Goffman’s (1963) statement, the balance of social and personal identity which represents self-identity. Contemporary identity theory assumes that in order to manage this balance in response to the changing workplace across the employment life course, the resources of social status, recognition and self-esteem are necessary for successfully matching vocational identity standards and employment situations in the sense of a valid self-verification

A competence model of VET

Among the numerous attempts to construct a conceptual foundation for VET analysis (cf. Fischer & Boreham 2009), the model by Felix Rauner et al (2009) deserves special attention in regard to the implications for vocational identity. Vocational development is designated as an integrated process of developing competence and identity in the course of becoming a skilled worker, associated to a community of occupational practice. This implies that domain-specific knowledge and individual standards are acquired which are basic for occupational action as well as for the shaping of work related decisions. Vocational competence is the capacity to solve

multiple work tasks by mobilizing cognitive potential, that is, know-how to act across several work contexts and to deliver results (goods and services) that meet quality standards of customers and the community of practice as well. Rauner et al (2009, 32) distinguish several work process and organizational aspects of vocational competence: “understanding, reflecting and assessing of occupational assignments and their execution as well as the capacity to participate in the design of organizational processes with social, economic, and ecological responsibility, and not just according to instructions”.

This definition sets a demanding agenda of vocational socialization: specific and transferable cognitive dispositions as well as occupational and organizational commitment (emotional attachment/devotion) constitute a well rounded identity that qualifies skilled individuals to become and act as agents of their work life. Competence profiles vary by the levels of cognitive complexity, social responsibility and accountability required by an occupation, and by the extent to which these competences are actually used in the work process.

Practising one’s occupation as a vocation in the true sense of this notion means to invest in becoming an expert in one’s trade and a person who is respected because of the quality of her or his work and responsible role in the community (vocational integrity, “Berufsehre”).

Thus, a promising framework of analyzing vocational identity in the context of VET pedagogy includes work conditions and their change, sources of vocational commitment (skill profile, occupational community, company policy, work ethic, etc.), the relationship of working and learning and its transformation into enlarged competences.

Flexibility demands at the work place (e.g. commuting between projects) and changing employment conditions (e.g. temporary and short-term work) are challenging workers’ capacity to adapt or modify their perspectives in regard to the content, organization and security of their job, and may create a role-distance towards job and company: Too much commitment may turn out to be self-defeating during an economic recession.

Therefore, I propose combining the criteria of work process knowledge with employment process knowledge, if vocational identity is to be maintained by adapting to rising flexibility demands across the work life course: Skill-based employability and career competence must complement each other. This takes into account results of theory and research about vocational socialization (Lempert 1998, Heinz, 2009) which show that VET provides a bundle of skills that constitute not only specific practical, technical and theoretical knowledge, but also communicative and self-reflexive competence. These are fundamental psychosocial resources for a self-directed shaping of employment biographies which is required by volatile labour markets and flexible work circumstances: a combination of initiative and resilience (Schoon 2006).

The rapidly changing the work contexts pose the question how and to what extent vocational socialization provides the individual competences for constructing an identity that serves employees’ efforts to adapt their work orientation and life, and not just their career plans.

Shaping a work-centred life course

In the past decade, there have been stimulating contributions of industrial and occupational sociologists, as well as work and organization psychologists that suggested that the relationship between the person and work has become more and

more determined by market forces and instrumental rationality. A prominent example is the ideal type of the *entreplooyee* (“Arbeitskraftunternehmer”), an identity formation which directly reflects the requirements of flexible employment, to work in a self-directed manner and to individually shape one’s career.

The notion of “entreplooyee” was proposed at the end of the 1990s by the German industrial sociologists Voß and Pongratz (1998), who argued that the structural transformation of work and management has reached a new level of increasing employees’ responsibility. In the context of market-driven, service-centred work, instead of prescribed and supervised work self-directed performance is expected: regulation and control activities, which formerly were in the hands of management, are gradually shifting to the skilled workers. Employees, especially in the financial, media and ICT sectors are required to think, plan and act like entrepreneurs.

Accordingly, the *entreplooyee* is defined by the following three characteristics: competence of self-control (independent planning, regulating and executing of activities), self-economization (calculated marketing of one’s skills and achievements), and self-rationalization (conscious organization of life and the life course according to the rhythms of employment). These properties of modern jobs are not specific occupational qualifications but rather general competences that the working person needs in order to transform vocational skills into a flexible work performance. This form of work designates a *habitus*, a form of work, but not yet a type of subjectivity which has the potential of constructing an individual relationship with the new employment regime.

Such an ensemble of competences presupposes work environments which many degrees of freedom for executing work and a process of self-socialization that promotes the restructuring of a specific vocational into a quasi-entrepreneurial identity, which is committed to fast track occupational success. The *entreplooyee* indicates another relationship between the person and work compared to the skilled worker who used to perform in a more or less supervised environment according to his vocational competences, guided by a specific know-how and quality standards. To what extent do skilled workers orient themselves in their employment according to this type and develop corresponding competences for shaping a new or at least a modified occupational identity?

Research, in most cases based on qualitative methods, suggests that there is a variety of subjective arrangements with the rising demands of self-responsible and rational job performance (Pongratz and Voß 2003, Kirpal and Brown 2007). It is important to find out which forms of subjectivity are transitional adaptations and which ones indicate a long-term transformation of vocational identity. However, as long as we do not have longitudinal studies that accompany employment biographies of workers in occupational contexts that exhibit the requirements of acting like an *entreplooyee* sound answers will not be possible.

What are the reasons for the spreading of this type of occupational identity? The accelerating technological innovations and the globalization of ICT-based exchange of products and services; rapid changes in the composition and prospects of occupations (Heinz 2009), permanent renewal of knowledge, dissolution of the separation of working and learning, aiming at lifelong learning, project-based work, and most important, flexibilization of employment, increasing self-employment, free-lancing, and temporary work.

Theoretical and empirical analysis (cf. Brown, Kirpal & Rauner 2007) suggests that the market imperatives are impacting on the individual shaping of work deep into the self-marketing of one’s competences. The flexible employee has the competence “to

anticipate and internalize requirements for continuous adjustments and changes in the workplace, leading to a transitory work attachment and identity for the less qualified, and a highly individualized work identity based on professional skills and competences for the higher qualified” (Kirpal & Brown 2007, 231). It is important to note that the subjective implications of adapting to the changing workplace differ by level of qualification and are related to different identity formations. Employees who are less qualified do not have the resources to adjust to flexibility demands and tend to cling to their conventional vocational identity, whereas the better qualified have socialized themselves to act in a flexible manner and rely on their individual competences.

There is more freedom of work behaviour and the choice of means, but the setting of goals, occurs in an ambivalent context of self-control and management control at a distance, for instance through agreements concerning the quantity and quality of output in a fixed time (“Zielvereinbarung”). In a growing number of occupations this new work regime results in a colonization of the life world, that is, by dissolving the boundary between work and private life. Furthermore, the flexible structuration of work also leads to discontinuity of employment biographies which are expected to be shaped in a self-guided way, by taking initiative in switching between tasks, teams, organizations, types of employment, episodes of joblessness, and further training. However, in the present economic crisis, there is substantial tension arising for skilled workers on all qualification levels when attempting to come to terms with flexible work and uncertain occupational futures.

The contingent work life course (Heinz 2003) only provides opportunity of self-direction for those individuals who command the resources of self-reflexive action (Giddens 1991), based on a set of broad skills. Occupational development is not a blueprint of the restructured work, its course also depends on individual competence, pathway decisions and life plans. Motives, competences, and future plans are responsive to the changes in work circumstances (down-sizing, out-sourcing, merging, plant shut-down, company bankruptcy) which lead to a variety of reactions with short- and long-term consequences, unemployment, working for a temp agency, moving to another region, voluntary shift of jobs and career lines, becoming self-employed, intensifying further learning.

In addition to vocation-based competences, individual reasoning in the sense of biographical accounting becomes a central component of managing the discrepant requirements and unintended consequences of decisions which mirror structurally induced conflicts between the persons and their working contexts and career options (Hoff and Ewers 2002). When autonomy, in the sense of being individually responsible for shaping job and career, is experienced as compulsion, individual goals are at stake, a situation which creates identity-related attempts to strike a balance between maintaining life plans and adapting to short-term demands, e.g. of family life and employment, job improvement and acquiring of new skills, restricting quantity and quality of output.

In our turbulent times, the idea of a vocation (“Berufung”) remains a core dimension at the meta-level of self-identity for integrating the various job demands and employment experiences, at least in societies which operate with a qualification-based employment system, like Germany, compared with organization-based systems, like the UK or the USA.

I agree with the dynamic approach of the FAME project (Brown, Kirpal & Rauner 2007) which regards the acquisition of skills as the root of any kind of work-related identity construction. But, I add: since skilled work is not the end but the medium for

realizing individual goals, interests, and biographical orientations, the person's identity standards play a crucial role.

Modes of adapting vocational identity to work flexibility

As argued above, occupational fields differ in the extent to which they demand self-control, self-rationalization and a redefinition of vocational identities. There is little research that attempts to shed light on this complex interdependence between flexible work and changing identities. I'll discuss results of qualitative studies, which dig deeper than quantitative ones, that document how skilled workers responded to changing jobs, careers, and labour markets.

Swiss psychologists Sabine Raeder and Gudela Grote (2007) analyzed the process of identity construction of skilled workers who had to come to terms with career changes. The conceptual a focus was on internal dimensions of identity, which resemble the ones delineated by Hoff (1990): ecological consistency (cf. social embeddedness), self-esteem, locus of control (cf. coherence), and biographical continuity. Analyzing the interviewees' narratives in this framework, they constructed an identity typology that demonstrates that there is a range of sense-making strategies: continuity, job-focus, critical flexibility, and self-determination. These strategies document two different individual modes of dealing with flexibility demands: looking for a flexible work life in order to pursue individual goals or adapting to requirements in order to use one's skills and follow career lines in a self-determined or work-determined way.

Similar patterns were found in our longitudinal study in two German labour market regions about young skilled workers' strategies of shaping their transition into the labour market in the 1990s. In a series of face-to-face qualitative interviews over a period of six years we found several biographical action orientations (BAO) which were related to the workers' respective occupational context and their work experiences (Heinz et al 1998; Kühn and Witzel 2003). Guided by the notion of self-socialization (Heinz 2002), which assumes that persons shape their work-related identity in a process of self-development and self-organized learning from the results of occupational decisions, we wanted to understand how vocational skills and job experiences are transformed into occupational identities and coined the empirically grounded concept of BAO.

Our analysis resulted in distinguishing between six types of BAO: "company identification", "wage worker habitus", "career involvement", "optimizing opportunities", "gaining autonomy", and "self-employment". Because our sample consisted of traditional crafts, manufacturing, and service occupations, we did not discover many representatives of the modern type of entreployee, but in some cases could observe work orientations that indicate an active mode of adapting to and not just accepting flexible employment circumstances.

Identifying different modes of coming to terms with job requirements means to illuminate how young skilled workers shape their work performance and career and integrate their experiences into vocational identity. For example, the biographical action orientations of "autonomy gain" and "optimizing opportunities" carry the sign of the subjective competence of self-control in the sense of actively adapting to flexible employment, whereas the other types are rather tied to a circumscribed vocational or organizational identity, aiming at an arrangement of skill profile, work circumstances, company policy, and labour market conditions. By no means should these orientations be equated with a passive acceptance of work conditions and career uncertainty, they rather signal that the young employees attempt to make use of their

vocationally based identity also in the light of adverse and disappointing work experiences. Their biographical action orientations are reflecting the ambivalence inherent in modern, high risk employment systems: in order to keep one's job, skills must be applied and improved and career discontinuity be anticipated, in many cases by playing it safe and relying on the company and colleagues, in the sense of a psychological contract. This especially holds in conditions of labour market uncertainty which increase the relevance of job security against the claim of self-direction: some accept self-responsibility for employment problems and initiate job search and continuing training, others attempt to cling to their skill profile as the source of threatened vocational identity and expect the company or government to take care of their employment.

An important variation of BAO is related to the life plans of women who assess labour market and work conditions from the perspective of balancing employment and family life, a perspective which favours social values and contradicts the impersonal rationality of the market. Identifying with the company and postponing skill improvement, and optimizing the opportunity for balancing employment and family life, e.g. by part-time work, are gender related variants which do not indicate self-rationalization but a specific expression of a vocationally based self-reliance.

There are several variations of the BAO "gaining autonomy" on the basis of a vocational commitment. Flexible work may be performed with the interest in shaping everyday life. In contrast to the entrepmployee, this orientation varies by life phase and gender and signifies a mental distance to work which should fit with the other life domains. Here, work is not the central life interest, but rather a means for shaping the contingent life course in a self-directed and balanced way. The occupational qualification is used for shaping the employment career without harming the private sphere. The interest in self-determination may also set limits against the competitive marketing of skills in favour of communal and social values which highlight the moral integrity as a central dimension of vocational identity.

Another, more recent, excellent qualitative study by Simone Kirpal (2009) illuminates how employment experience and the subjective work identification interact. Based on the results of the European FAME Project (Brown, Kirpal & Rauner 2007), Kirpal compared the occupational identifications and employment histories of employees in two major service occupations in two countries: nurses and ICT specialists in the UK and Germany. These occupations represent quite different work contexts and vocational traditions: nursing is a well institutionalized semi-profession with clear standards of qualification and career continuity, information and communication technology (ICT) is a new, evolving field with various skill backgrounds and high job mobility.

The results also show that the relationship between vocational identity and flexible work conditions is far more complex than abstract models of skill-based identification with one's occupation tend to assume. Flexibility demands characterized the employment experiences on several levels: in regard to the labour market, organizational restructuring, and the workplace itself. Furthermore, the options and restrictions for balancing work and private life, of job mobility, and further occupational learning are leaving their marks on vocational commitment.

Nursing requires on a high level of occupational commitment in order to cope with stressful work circumstances, much responsibility, and little material and social recognition. This situation makes it difficult to maintain one's vocational identity which, however, may be transformed by actively engaging in steps of professional development. The restructuring of hospitals to a cost-efficient and consumer-oriented

enterprise is directing the skill profiles and career options of nurses towards professionalization. Increasing coordination demands across medical specialities (merging of wards) requires that nurses, like many other service employees, enlarge their skills by integrating administrative and counselling skills: from a specialist to an all-rounder.

Following the model of identity construction, we assume that the individual strategies for coming to terms with the demands to become more flexible and multi-skilled are influenced by the nurses' occupational socialization (VET or college), work biographies, further learning opportunities, and career pathways. This is confirmed by Kirpal's comparative analysis, there are substantial differences: the nurses trained according to the German VET model are primarily committed to patient care in the context of team work in hospital wards, whereas the UK nurses, educated at universities, combine hospital work with professional development, are open to multi-skilling, and have more options in regard to occupational pathways. A mix of caring, technical, administrative and communicative skills is necessary to take on the enlarged occupational responsibilities. Redefining the scope of job-content and skills requires a restructuring of nurses' vocational identity, a difficult task in view of the biographical investment in the core competence of providing care and a lack of counselling and institutional support to manage such a subjective transformation. It seems that German nurses are less well prepared to adapt to the ongoing rationalization of hospital work than their British colleagues, and thus will develop different strategies for coming to terms with the restructured work organization.

According to Kirpal's study (2009), when being confronted with intensified and multi-skilled work, there were three ways of dealing with the subjective conflicts of maintaining or restructuring vocational identity: Leaving the occupation (most often in the UK), changing the work orientation (more often in Germany), and re-directing work by continuing learning. In the UK job changes and occupational mobility were possible because of a wide range of career options within and outside the hospitals.

Re-directing in many cases meant to initiate a shift from a vocational identity to a professional image of work. This transformation process was easier for the younger nurses because their vocational socialization already included professional elements, while older nurses had problems to redefine the meaning of work. While continuing education and training was a taken-for-granted aspect of the nursing occupation the UK, in Germany it was more often the case that work dissatisfaction (time pressure, routine work) motivated nurses to engage in further training and not primarily the idea to promote employability and career prospects. Another response among many German nurses was a long-term adjustment, a compromise that meant to arrange oneself and resisting continuing learning and skill enlargement. This strategy of conserving vocational identity, however, occurs at the cost of losing touch with career and job improvement prospects.

As Kirpal (2009) highlights, a completely different constellation is represented by the employment histories and work circumstances of ICT workers; this modern service sector employs workers with different qualifications and job histories in highly flexible organizations. ICT work does not link up with specific qualification standards (even in Germany, 80.000 people work in this industry without having job-specific formal qualifications) and thus attracts people (predominantly men) who identify with work in individualized ways with a strong interest in self-directed jobs and careers: the catch-words are self-organization, project work, and goal agreements. Skilled work in this sector depends on the globalization of the ICT industry and rapid

technological development; work-places are relocated, careers short-term, but autonomy at work and the potential for innovative action are high.

Again, there are differences in the employment strategies and skill-building programmes of ITC companies in Germany and the UK: UK employers recruit workers from a pool of higher education graduates, often without a background in technical matters but with communication and business skills, whereas in Germany many come from IT apprenticeships which provide a certain skill portfolio and a certified qualification; thus with a well defined vocational identity.

In this open and dynamic context, which is a prototype of flexible work, frequent changes of job and employer are the workers' active strategy to accumulate work experience, enlarging skills and exploring career lines. Therefore, attachment to a firm and commitment to a circumscribed set of occupational skills are rare among ICT-workers, they rather identify with their individual competences, their potential of learning and working in a self-directed manner. This work orientation has affinity with the destandardized employment patterns in the ICT industry, working on challenging tasks in changing projects is regarded as promoting learning and career opportunities. As Kirpal (2009) points out, the various levels of flexibility and unpredictability were seen by the majority of respondents as "part of the excitement of working" in this innovative industry.

The dominant type was characterized by a close interrelationship between individual fascination of computer technology and vocational learning. Its representatives perceived their work as self-realization (in the sense of a "vocation") and relied on their competence of self-direction and continuing learning. The majority of ICT workers developed a flexible job commitment and a work identity which was not focused on specific practical skills and technical knowledge.

An orientation resembling vocational identity was shown by another type, characterized by a strong technical orientation with a focus on computing and programming, connected with doubt whether they will be able to master the stressful employment conditions in the long run. The improvement of technical know-how was their guideline of occupational development and not the required multi-skilling and self-marketing. It seems that they stick to their vocational identity and thus are likely to get stuck in their careers. Their identification with technical skills was a mental barrier against moving toward a more flexible, multi-skilled work context which demanded social and organization competence in regard to colleagues and customers.

IT-specific qualification was associated with being committed to the technical dimensions of work, while those with another occupational socialization showed a wider range of work and career orientation and an employment biography with many job changes. This can be explained by an unspecific vocational identity which was found more often among ICT-specialists in the UK. Such an orientation, however, creates rising costs of balancing work and private sphere, working seven days and long hours reduces the time for regeneration, family, partnership, and past-time activities. Therefore, mid-career ICT-experts were thinking of alternative forms of employment in order to find a way of redefining their professional aims in favour of a more balanced relationship between work and private life.

It seems that the extremely dynamic field of ICT is creating work and career circumstances that characterize work regardless whether it is in the UK or Germany. This context creates experiences that are promoting an employee-orientation. Though VET and college did prepare workers in this sector with different kinds of identity, their workplaces and professional development are creating a similar

occupational culture which expects a variable identification with jobs and companies in favour of self-direction and autonomy. This identification, however, is ambivalent because the rhythm of life is dictated by the time pressure of work and an unpredictable employment future. Therefore, experienced ICT workers are attempting to gain some control over the pace of working and career opportunities without giving up their keen interest in answering to computer related innovations.

Conclusion and outlook

Does vocational identity conflict or resonate with flexible work? I tried to show that it depends and the must take into account a multitude of aspects that range from national frameworks of education and training, occupational traditions, company human resource management, job and labour market conditions on the one hand, and the skilled workers' vocational socialization, skill profile, and future plans, on the other. Moving from a self-perception as a skilled specialist to a multi-skilled generalist is a difficult learning process which implies to leave routine habits behind and to restructure self-identity. Since there are few, though increasing fast-track occupational fields and little institutional support for such a subjective transformation to become an entreplooyee, the majority of skilled workers cling to their vocationally based competences as long as possible. Their strategies are motivated to achieve individual coherence, social recognition, and biographical continuity despite of fundamental changes in their work life.

Skilled workers in the service industry are the avant-garde of employees faced with the challenge to re-construct identities connected to their occupation in view of discontinuity of careers and flexible workplaces. Their strategies differ according to the dominant sources of occupational commitment: attachment to the skill profile and the immediate community of practice is related to a low level of job mobility, while a more general qualification facilitates adapting to flexibility by frequent job changes and further learning. The ambivalence of flexible work is met either by re-directing career, or by a long-term adaptation. These strategies result from processes of occupational self-socialization, guided by the specific cultural and institutional frameworks of the occupations.

In a globalized economy, the national institutional contexts do not make much difference in the case of skilled workers in the ICT, media and banking sectors who adapted to volatile employment and career conditions by intensifying their psychosocial flexibility and engagement in their professional development. Vocational identities which are based on specific skills, occupational community and career lines, however, still are embedded in a national framework of institutional regulation and cultural traditions.

In addition to the effort of getting control over the conditions and results of work, the problem of constructing a work-life balance creates conflicts between occupational identity and the individuals' time budgets. Especially skilled female workers respond to such conflicts by reducing the centrality of work and develop a role distance in favour of a clear separation of occupational and private time. In the fast-track occupations such a strategy is much more difficult because workers' self-socialization makes it possible to organize life in such a way that professional and private sphere can overlap, with a clear lead by the work sphere.

Constructing a continuity of vocational identity under conditions of uncertainty of job and career prospects seems to be possible by engaging in the enlargement of skills and the development of employability in the sense of acting as an agent of

one's occupational future. This means learning to shape the work biography as a self-reflexive, but not self-centred venture.

Whether such a strategy is successful depends on the extent to which the respective occupational context promotes confidence in one's skills and work experiences and community of practice are supporting and recognizing the person's competence, and in view of the labour market crisis, a job is kept or can be found. Nowadays, however, it has become bad management practice to demand workers' self-direction and flexibility, without giving them the chance to anticipate work place and company changes.

Though there are limits to generalize from qualitative data, it is obvious that becoming a multi-skilled generalist will reduce the attachment to a more focused vocational identity acquired in the process of VET and during the first years on the job. Among skilled workers there is much reluctance to engage in multi-skilling because they are afraid to lose their vocational focus, the central aspects they identified with in their occupational biography.

For the multi-competent entrepreneurial employee we see that if self-actualization through flexible work becomes stressful and does not leave time for non-work activities, then the feeling of ambivalence may set in motion a new arrangement of priorities. The issue of meaningful alternatives, setting other priorities and lines of action according to one's responsibilities inside and outside of work will gain in importance, whenever achievement pressures are felt to lead to self-exploitation.

In flexible work environments, the competence to validate one's past, present and plan one's future must be guided by biographical reflections about the reasons of success and failure in the world of work and its relationship to private life. Vocational identity is like a moving target and adaptable to flexible work by a lifelong self-socialization when individual and social resources are available. In other words, it will be necessary for skilled workers to overcome taken-for-granted rules, habits, and routines and to get engaged in converting their skill profile into a set of competences by engaging in professional development.

References

- Brown, A., Kirpal, S. and Rauner, F. (eds.) (2007): *Identities at Work*. Dordrecht: Springer.
- Erikson, E.H. (1982) *The Life Cycle Completed*. New York: Norton.
- Fischer, M & Boreham, N. (2009): Occupational work and competence development. In: F. Rauner & R. Maclean (Eds.): *Handbook of TVE Research*. New York: Springer, 439-444.
- Giddens, A. (1991): *Modernity and Self-Identity*. Stanford, CA: Stanford UP.
- Goffman, I. (1963): *Stigma. Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice-Hall.
- Habermas, J. (1976): *Moralentwicklung und Ich-Identität*; in: Habermas, J.: *Zur Rekonstruktion des Historischen Materialismus*. Frankfurt a. M.: Suhrkamp, 63-91.
- Heinz, W.R. (2002): *Self-socialization and post-traditional society*- In: R.A Settersten & T.J. Owen, (Eds.), *Advances in Life Course Research. New Frontiers in Socialization*. New York: Elsevier, 41-64.
- Heinz, W.R. (2003): *From work trajectories to negotiated careers: The contingent work life course*. In: J.T. Mortimer & M.J. Shanahan (Eds.), *Handbook of the Life Course*. New York: Kluver/Plenum, 185-204.
- Heinz, W.R.: *Occupational socialization*. In: F. Rauner & R. Maclean (Eds.): *Handbook of TVE Research*. New York: Springer, 481-489.
- Heinz, W.R. et al (1998): *Vocational training and career development in Germany; results from a longitudinal study*; *International Journal of Behavioral Development* 22, 77-101.
- Hoff, E.-H. (1990): *Identität und Arbeit*; *Psychosozial*, 13, 7-25.

- Hoff, E.-H. and Ewers, E. (2002) Handlungsebenen, Zielkonflikte und Identität. Zur Integration von Berufs- und Privatleben. In: M. Modaschl (Ed.): *Neue Arbeit-Neue Wissenschaft von der Arbeit?* Heidelberg: Asanger, 222-248.
- Kirpal, S. (2009): *Labour Market Flexibility, Work Orientations, and Skills. A Comparative Study of Nurses and ICT-Technicians in Germany and the UK.* Dordrecht: Springer (forthcoming).
- Kühn, T. and Witzel, A. (2003): Die Arbeitskraftunternehmer-These aus der berufsbiographischen Perspektive; in H.J. Pongratz & G.G. Voß, (Eds.): *Typisch Arbeitskraftunternehmer?* Berlin: edition sigma, 229-253.
- Lempert, W, (1998) *Berufliche Sozialisation oder was Berufe aus Menschen machen.* Hohengehren: Schneider.
- Mead, G.H. (1934): *Mind, Self and Society.* Chicago: University of Chicago Press.
- Pongratz, H.J. and Voß, G.G. (Eds.) (2003): *Typisch Arbeitskraftunternehmer?* Berlin: edition sigma.
- Raeder, S. & Grote G, (2007): Career changes and identity continuities - a contradiction? In: A. Brown, S. Kirpal & F. Rauner (Eds.); *Identities at Work.* Dordrecht: Springer, 147-181.
- Rauner, F. (2007) Practical knowledge and occupational competence; *European Journal of Vocational Training* 40, 52-66.
- Rauner, F. & Maclean, R. (Eds.) (2009): *Handbook of Technical and Vocational Training Research.* New York: Springer.
- Rauner, F., Haasler, B. Heinemann, L., Grollmann, P. (2009) *Messen beruflicher Kompetenzen.* Münster: LIT Verlag.
- Schoon, I. (2006): *Risk and Resilience: Adaptations to changing times.* Cambridge: Cambridge UP.
- Stryker, S. and Burke, P. (2000): The past, present, and future of an identity theory; *Social Psychology Quarterly* 63, 284-297.
- Tajfel, H. (Ed.) (1981): *Human Groups and Social Categories.* Cambridge: Cambridge UP.
- Voß, G. G. & Pongratz, H. J. (1998): Der Arbeitskraftunternehmer. Eine neue Grundform der „Ware Arbeitskraft“? *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 50, 131-158.

WORKSHOP I

Managing the Transition from General Schooling to Vocational Careers

Transition from Lower- to Upper-Secondary School in the Canton of Ticino (Switzerland): The Choices made by Young People

Elena Boldrini and Luca Bausch

*Swiss Federal Institute for Vocational Education and Training (SFIVET)
Via Besso 84, 6900 Lugano – CH*

Summary: The present report discusses a research and development project carried out in the Canton Ticino (in the Italian-speaking region of Switzerland) to identify the factors determining the choice of upper-secondary education/training upon completion of lower-secondary school. The project seeks to shed light on the reasons why young people in Ticino are less likely – compared to the Swiss average – to enrol in an upper-secondary VET programme, particularly a combined school/work-based VET programme.

Keywords: Transition, combined school/work-based VET programme, CDDQ, Switzerland

Switzerland’s VET sector in the EU context

At the Swiss national level, roughly two-thirds of all young people coming out of lower-secondary school enrol in an upper-secondary level VET programme. Of these two-thirds, 58% choose to enrol in the combined school/work-based variety. Only one-third of lower-secondary school graduates enrol in either a selective school or a specialised school, whose respective curriculums place much greater emphasis on general education subjects.

Table 1 provides a breakdown of the general education vs. VET choices for various countries, including Switzerland. For VET, the table also indicates the proportion of students enrolled in a combined school/work-based VET programme as opposed to an entirely school-based one. As we can see, Switzerland, together with the two German-speaking countries of Austria and Germany, has the highest proportion of students enrolled in the combined school/work-based variety.

Country	General education	Vocational education and training (VET)	
		Total	Combined school/work-based
Switzerland	35.3	64.5	58.3
Austria	21.5	78.5	32.7
Germany	39.7	60.3	45.0
U.K.	27.8	72.2	N/A
France	43.6	56.4	11.3
Italy	38.5	61.5	N/A

Table 1: Comparison of upper-secondary enrolment by type, 2005
(taken and adapted from Ghisla, Bonoli, Loi, 2008, p.6)

The two countries with the highest number of young people enrolled in combined school/work-based VET programmes, Switzerland and Germany, both experienced a

decrease in enrolment: from 58% in 2000 to 49.2% in 2005 for Germany (Uhly, Lohmüller, Arenz, 2008); and -7.2%¹ for Switzerland (Bonoli, Ghisla, 2008), which at the same time also experienced a decline in the relative direct transition rate (i.e. decision to enrol in an upper-secondary school immediately after completion of lower-secondary school)².

Specificities of the Canton Ticino

Against this general backdrop, the Canton of Ticino (which constitutes most of the Italian-speaking region of Switzerland) shows a series of specificities, which have prompted the Canton to be referred to as a “special case” (Ghisla, 2003). We may summarise these specificities thus: i) higher than average decline in VET enrolment over the past fifteen years (10% fewer students enrolled in combined school/work-based VET programmes from 1991/92 – 2006/07; Guidotti & Rigoni, 2007, p.7); ii) high direct transition rate from lower-secondary schools to upper-secondary selective schools for qualifying students, (92%, USR, 2007, p.89)³; iii) much higher average age compared to other types of school; iv) noticeable disparities in transitions from lower-secondary schools to upper-secondary vocational schools in the various geographical locations of the Canton of Ticino; v) high dropout rate for selective school programmes (about 30% from 2003/04 - 2006/2007⁴); vi) compared to other cantons, lesser prevalence of enrolment in bridge-year courses between lower-secondary and upper-secondary (Egger, Dreher & Partners, 2007).

Research project

The study presented here focuses on understanding how young people make the transition from lower-secondary to upper-secondary education/training in the Canton of Ticino, taking into account that combined school/work-based VET programmes enjoy little prestige and are generally perceived to be a choice of last resort. The SCELTO*plus* project⁵ set out to identify a series of “problem areas” and elaborating experimental strategies to tackle these problem areas.

¹ This percentage refers to the number of VET students who completed a combined school/work-based VET programme.

² The “direct transition rate” (Federal Statistical Office, 2007, p.47) to upper-secondary level vocational schools fell by over 10% from 1990 to 2005, whereas the direct transition rate to upper-secondary level selective schools (exclusively general education-based curriculum) and specialised schools (partly general education-based, partly occupational-based curriculum) increased. For a longitudinal analysis of educational paths of young people in the Canton of Ticino, see the study published by Donati & Lafranchi (2008) and Donati (1999).

³ In Ticino, nearly 50% of all students graduating from lower-secondary school have the prerequisites needed to enrol in an upper-secondary level selective school or specialised school without having to take an entrance examination.

⁴ See http://www.ti.ch/DFE/USTAT/DATI_CANTONE/15_formazione/tabelle/T_150204_01C.html.

⁵ The research conducted for this report is part of the broader SCELTO*plus* project funded by the Federal Office for Professional Education and Technology (OPET) in 2008. The project group is comprised of the following institutions: Commercial Employees Association (SIC Ticino), which acts as the project promoter; Swiss Federal Institute for Vocational Education and Training (SFIVET); Canton of Ticino Department of Education, Culture and Sports (DECS), Cantonal Office for Lower-Secondary Education; Canton of Ticino Department of Education, Culture and Sports (DECS), Canton of Ticino Department of Education, Culture and Sports (DECS), VET Division; Canton of Ticino Chamber of Commerce for Industry and Craftsmanship (Ccia-TI); Cantonal Office for Educational and Occupational Guidance (UOSP); Conference for Adult Continuing Education and Training (CFC); Cantonal Parents Association (CCG). SFIVET is responsible for conducting research in collaboration with project managers.

Theoretical and conceptual frame of reference; scope of study

The exploratory field-based study considered possible psychosocial factors influencing the transition from lower- to upper-secondary level education (Herzog, Neuenschwander and Wannack, 2006). These include: factors relating to context, i.e. socio-demographic variables and interactions that individuals have with their context of reference (Pagnossin, Armi, 2008); and factors of a more endogenous and personal nature, which mainly depend on individual beliefs and objectives (Masdonati, 2007; Albert, 2007).

Sample and gathering of data

Three lower-secondary schools were chosen for the study on the basis of specific characteristics reflecting the heterogeneous territory found in the Canton of Ticino. Within each school, the following sample was chosen: i) students from three classes in each of the three lower-secondary schools considered (n=173); ii) the students' parents (n=158); iii) teachers (n=7); iv) guidance coordinators (at the schools) (n=3); v) guidance counsellors (at the Cantonal Office for Educational and Occupational Guidance) (n=3).

Data was collected in two phases, an *ex ante* phase (at the end of lower-secondary school in the 2007/08 school year) and an *ex post* phase (at the start of the 2008/2009 school year). For the *ex ante* phase, i) a questionnaire was given to the students, parents and teachers ii) semi-structured interviews were conducted with guidance coordinators and guidance counsellors and iii) for the *ex post* phase, a questionnaire was given to the same group of students one semester after the first data gathering phase in order to verify their final decision.

Some results of the quantitative analysis

Ideal occupation

There seems to be a clear preference for intellectual and scientific occupations ("professional" in table below) both among parents and, to an even greater extent, among students. While only 10.7% of the parents work in an intellectual or scientific field⁶, 23.5% feel that an intellectual and scientific occupation would be ideal for their son or daughter. 30.2% of the students surveyed felt the same way⁷.

Both students and their parents felt that the main purpose of employment in a person's life is to fulfil all aspirations (on a scale of 1 to 7, 5.95 was the average for parents and 5.05 for students). Expectations of total personal fulfilment in the occupation are high among students and even higher among parents.

Career indecision

The taxonomy proposed by Gati, Krausz e Osipow (1996) and their corresponding "*Career Decision-Making Difficulties Questionnaire*" (CDDQ) were used to measure the difficulties in the career decision-making process. The questionnaire is broken down into the following components: 1) *Lack of Readiness (R)* – which includes: lack of motivation (Rm), chronic indecision (Ri), dysfunctional beliefs or myths (Rd); 2) *Lack of Information (M)* – which includes: lack of information about the decision

⁶ The occupational categories used are based on the ILO's *International Standard Classification of Occupations* (ISCO-88). For the full list, see <http://laborsta.ilo.org/applv8/data/isco88e.html>.

⁷ 35.6% of the parents surveyed have only a generic idea of the occupational field that they feel would be ideally suited for their son or daughter, compared to 16.8% of the students.

making process (Mp), lack of information about the self (Ms), lack of information about occupations (Mm), lack of information about additional information sources (Mo); 3) *Inconsistent Information (I)* – which includes: unreliable information (Iu), internal conflicts (Ii), and external conflicts (Ie).

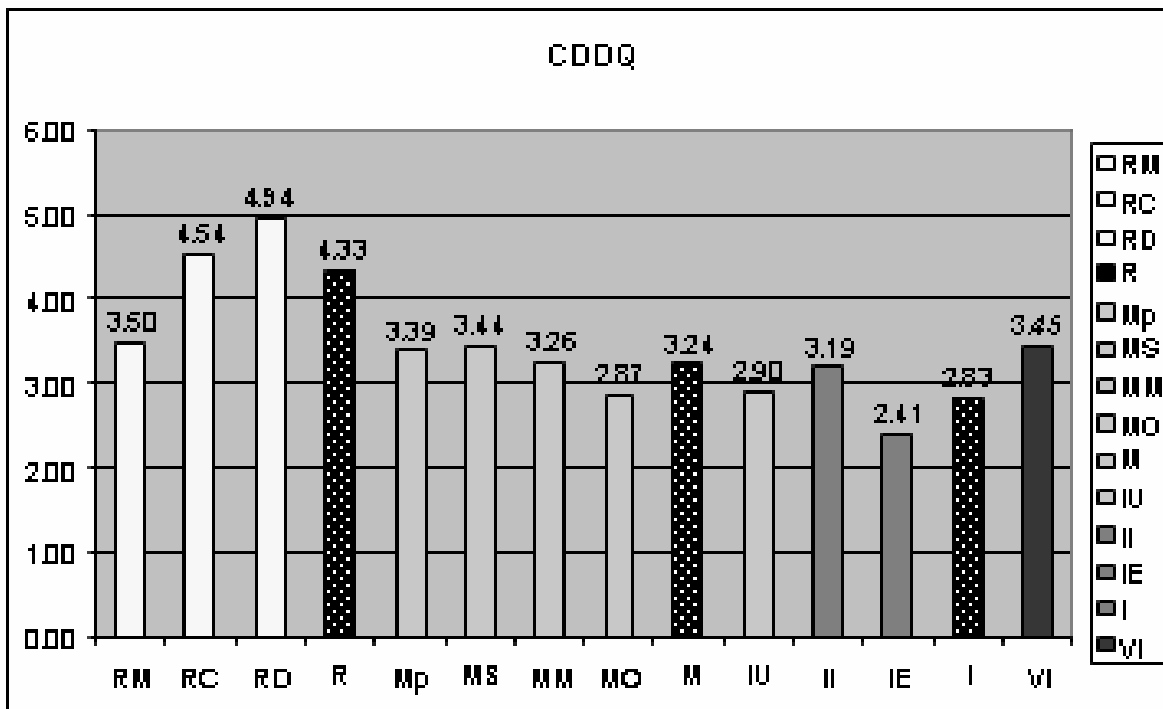


Figure 1: Total averages for the various CDDQ components and subcomponents

In terms of *Lack of Readiness (R)*, Figure 1 shows that *dysfunctional beliefs or myths* (Rd; Mean=4.94) are relatively high on the 1-9 scale and therefore have a noticeable impact on career indecision. This subcomponent enables us to determine the extent to which individuals develop unrealistic beliefs, idealisations and myths about the nature, consequences and irreversibility of their career decisions.

These *dysfunctional beliefs or myths* vary significantly according to gender ($p=0.045$), and nationality ($p=0.022$). In this subcomponent, the average score for foreign nationals was 5.52 compared to Swiss nationals who scored 4.80 ($p=0.022$). The average score for males was 5.19 compared to females who scored 4.69 ($p=0.045$). *Lack of motivation (Rm)* as an obstacle in the decision-making process was significantly higher among males (3.74) than females (3.27; $p=0.045$). Generally speaking, *foreign nationals* are less ready to make a career decision than Swiss nationals ($p=0.019$).

In terms of *Lack of Information (M)*, the average score was 3.24, which masks significant differences observed between those who have already failed one or more subjects during their studies (higher lack of information score, 4.00) and those who have not (lower lack of information score, 3.11; $p=0.015$). This group stands out proportionately from the rest of the sample in that they have less information about the various occupations (4.19; $p=0.011$) and find it much more difficult to find information about themselves, about occupations and about educational paths (3.62; $p=0.024$). Moderately high average scores can also be seen in terms of the lack of information about the decision-making process (how educational and career decisions are made, what variables they entail) (average=3.39), the lack of information about themselves, their abilities and skills (3.44), as well as the lack of information about occupations (3.26).

In terms of Inconsistent Information (I), or rather the likelihood that information and information sources might be contradictory, the scores were rather low. That said, the scores were significantly higher among those who had already repeated a year (3.65) compared to those who had not (2.77); $p=0.021$.

Information sources

Students tended to pay much closer attention to the advice given to them by their parents (97% of the sample). As an information source, parents seem to exert the greatest influence on students' choices (6.66=average; on a scale of 1 to 9). In contrast, the parents themselves did not feel that they played such a central role: only 6% of the parents claimed that they had been influential in their son's or daughter's choice.

Summary of analysis and possible steps to be taken

Both the quantitative and qualitative analyses highlight four "critical areas" that should be addressed during the developmental phase of the SCELTOplus project by introducing a series of experimental measures.

1. The first critical area has to do with *idealisation and expectations*. Measures aimed at enabling students to gradually see and project themselves within a given occupation could help remedy this problem.
2. The second critical area has to do with *career planning*. We observed a *lack of knowledge about the decision-making process and the various steps*, as well as a lack of knowledge about the occupations themselves. Measures aim to give the students practical exposure to the working reality.
3. The third area has to do with *communication and information*. Based on our observations, *students did not make full use of the information sources* placed at their disposal by the reference institution *nor felt that these information sources were useful*. Measures aim at providing students and parents gradual and coordinated access to information.
4. The fourth one has to do with *organisational and institutional structures*. There is a *lack of coordinated action between guidance coordinators, guidance counsellors and teachers*. Measures aim at revising the organisational structure and clarifying the roles of each of the three actors.

References

- Albert, E. (2007): *Wie beeinflusst das Bildungssystem die Übertrittsprozesse von der Schule in den Beruf?* Zürich: Soziologisches Institut der Universität Zürich.
- Donati, M. (1999): *Volevi veramente diventare ciò che sei? La formazione dei giovani dopo la scuola media* Bellinzona: Ufficio Studi e Ricerche.
- Donati, M., Lafranchi, G. (2007): *Formazione sì. Lavoro anche? I percorsi formativi e professionali dei giovani: fra strategie individuali e logiche di sistema.* USR, Bellinzona.
- Egger, Dreher & Partner AG. (2007): *Etude approfondie sur les offres de formation transitoires entre scolarité obligatoire et formation professionnelle.* Rapport. Bern, OFFT.
- Gati, I., Krausz, M., & Osipow, S. H. (1996): *A taxonomy of difficulties in career decision making.* *Journal of Counseling Psychology* (43), 510-526.
- Ghisla, G. (2003): *La scuola ticinese: un "Sonderfall" prezioso.* In AAVV (Ed.), *Il Ticino nella Svizzera* (pp. 381-453). Locarno: Armando Dadò.
- Ghisla, G., Bonoli, L., & Loi, M. (Eds.). (2008): *Economia della formazione professionale.* Torino: UTET.

- Guidotti, C., & Rigoni, B. (2007): Censimento degli allievi 2006/2007. Bellinzona: Ufficio Studi e Ricerche.
- Herzog, W., Neuenschwander, M., Wannack, E. (2006): Berufswahlprozess. Wie sich Jugendliche auf ihren Beruf vorbereiten. Bern: Haupt Verlag.
- Masdonati, J. (2007): La transition entre école et monde du travail. Préparer les jeunes à l'entrée en formation professionnelle. Bern: Peter Lang.
- Neuenschwander, M.P., et al. (2005): Schule und Familie – was sie zum Schulererfolg beitragen. Bern: Haupt.
- OFS (2007): Mosaique de l'éducation en Suisse. Les indicateurs de la formation 2007. Neuchâtel: OFS.
- Pagnossin, E., & Armi, F. (2008): Recherches suisses sur les transitions entre la formation et le monde du travail depuis les années 1980. Neuchâtel: IRDP.
- UFFT (2008): Formazione Professionale, Fatti e Cifre. Berna: UFFT-DFE.
- Uhly, A., Lohmüller, L., Arenz, U. (2008): Schaubilder zur Berufsbildung 2008, Schaubild 10 (www.bibb.de/schaubilder).
- Ufficio Studi e Ricerche (2007): Scuola a tutto campo. Bellinzona: USR.

Dropout Rates in Vocational Education and Training: A Failure of the School-to-Work Transition?

Marine Jordan, Nadia Lamamra, Jonas Masdonati

*Swiss Federal Institute for Vocational Education and Training (SFIVET)
Avenue de Provence 82 Case postale 192
CH-1000 Lausanne 16 Malley*

Summary: In Switzerland, many young people coming out of lower-secondary school enrol in an upper-secondary level VET programme. This is why public authorities have become increasingly concerned about the VET dropout phenomenon, which has been a persistent problem over the past few years. A qualitative study designed to shed light on the processes leading to VET dropout cases and their implications revealed five main categories of reasons that could explain the phenomenon. The unsuccessful transition from lower- to upper-secondary level education was one of the reasons identified. In this paper, we wonder whether the dropout phenomenon may be perceived as a tangible sign that transitions have become increasingly complex, or even unsuccessful. Indeed, transitions should not be deemed successful only in terms of whether or not a student coming out of lower-secondary school is able to find an apprenticeship position but also in terms of whether the student remains in the apprenticeship position long enough to complete the VET programme and obtain the desired qualification.

Keywords: Vocational education and training, dropout, school-to-work transition

Introduction

In Switzerland, the dual vocational education and training (practical training in a firm and theoretical learning in school) is the post-obligatory training most frequently chosen by pupils leaving secondary I (OFFT, 2008). Unlike other countries, such as France or Canada, VET programmes are not considered to be a second choice in Switzerland. VET programmes are generally seen in a positive light. It is asserted that VET programmes create a favourable environment for the professional socialisation of young people (Cohen-Scali, 2000): work-based training at host companies gives VET students the opportunity to sharpen their practical skills and enable a gradual school-to-work transition.

Combined school/work-based VET programmes are closely linked to the labour market (Hanhart, 2006). VET students spend a great deal of their time working at the host company, whose activities are subject to the imperatives of profitability and productivity. At the same time, VET students must be trained in such a way as to make them employable on the labour market immediately after graduation. For about ten years, the evolution of the job market as well as the unbalanced number of apprenticeship positions have negatively impacted one of the advantages of the traditional system of professional training, which is a gradual transition from school to work. The economic pressure from training firms render it difficult for training personnel to offer good supervision and intensive follow-up to apprentices. Over the

past decade, Switzerland has also experienced high dropout rates: depending on the linguistic region or occupational field, the dropout rate varies from 10% to 40%.

In this paper, we seek to know if the phenomenon of the premature stop of vocational training can be understood as a tangible sign of these transitions' complexification, or even as their failure (Michaud, 2001). Seen from this angle, a successful transition is not only defined in terms of whether students coming out of lower-secondary school find an apprenticeship position but also in terms of whether they stay in the apprenticeship until the end of the VET programme and receive the desired qualification (Masdonati 2007).

Presentation of VET dropout study

This paper is based on a study (Lamamra & Masdonati, 2009) carried out in Switzerland, which consisted in a qualitative analysis of 46 semi-structured interviews conducted with young people who dropped out in the first year of their VET programme. These interviews provided answers to the following research questions: What reasons do former VET students give to explain why they left the VET programme? What correlation may be drawn between the dropout phenomenon and individual identity? What meaning can be given to the dropout phenomenon?

We are more specifically interested in the first question, which enabled us to identify five categories of reasons that respondents gave to explain the VET dropout phenomenon: 1) poor working relations; 2) the impossibility of learning the occupation; 3) difficulties making the transition from lower-secondary school to the upper-secondary VET programme; 4) labour market-related problems and 5) external contingencies.

On the whole, it would seem that students leave VET programmes due to a combination of several categories of reasons. This prompted us to consider specific combinations of reasons, which enabled us to identify two different groups of VET dropouts. Group I is comprised of young adults (aged 18-23) whose previous educational path was not linear. Those students left because of the environment in which work-based training took place. They mentioned poor training and working conditions as well as problems with interpersonal relations within the company. In this group, the main problem seems to be the day-to-day situation at the host company, which relates to contextual and organisational aspects. Group II is comprised of adolescents (aged 15-17) whose previous educational path was generally linear up until when they dropped out. They drop out because they found the school-to-work transition difficult.

In general, VET dropout cases relating to difficulties encountered with the school-to-work transition (Group II) do not depend on the quality of the work-based training at host companies. The problems originate before the students enrol in the VET programme. It would seem that transitional difficulties are rooted in the young person's biography, his/her choices, his/her perceptions of the occupation and his/her aspirations.

In this paper, we shall focus on Group II and show how VET dropout cases are indications of a problem with the school-to-work transition.

Questions of transition

In the study, ten VET students explained the interruption of VET programme because they had difficulties making the transition. They felt that they had not made the right

choice of occupation or found it difficult to adjust between school and working environments.

Difficulties choosing an occupation

A poor choice of occupation can be the result of an inexact perception of the occupation, a choice made by default, or even a question of occupational immaturity. In the first case, we find a difference between the expectations created about a given occupation and the reality of the occupation or the experience that young people have with it during their apprenticeship. In the second case, young people may find themselves forced to enrol in a VET programme that does not match their interests either because the number of apprenticeship positions in certain occupational fields was limited or because their academic performance in lower-secondary school prevented them from enrolling in the desired VET programme. Respondent no. 32, (16 years old) is a good illustration of the third category of reasons, i.e. the occupational immaturity:

“I really didn’t have any problems with the subjects at vocational school. The work-based training in general was also cool. I just didn’t find it [the occupation] interesting enough. [...]. It’s hard to explain. Maybe I just decided too quickly and didn’t take enough time to [...]. For the longest time, I really didn’t know what I wanted to do. Then I tried working as a painter and liked it. So, I thought that this was the occupation for me. I didn’t give the matter any more thought”.

In this case, the lack of interest is the only reason why the young person terminated the apprenticeship contract. The student found the school-based education at the vocational school and the work-based training at the host company to be easy; he was on good terms with his boss and co-workers; the working conditions were good. However, he wanted to terminate the contract and find out exactly what he wanted to do with his life.

Difficulties adjusting between school and working environments

Some young people find it difficult to adjust from a school environment to a working environment. VET students also do not always seem prepared for the constraints of working life with its working hours, tediousness, fast-pace and working conditions. Respondent no. 31 (17 years old) expresses the difficulties that he had adjusting between school and working environments:

“Well, it taught me a great deal. I learnt what exactly working life means and there just ain’t no free lunch I can tell you. It’s no longer like school, no longer the same thing. It’s like, yeah, taking things to a whole new level [...]. I was a bit worried, a bit nervous about what to expect from working life [...] and then it hits you straight on, it’s... you know, they really sheltered us in school. Life used to be all fun and games and then one day it all changes [...] and you gotta work real hard. When we were in our last year, we had absolutely no idea that working life would be like this. We thought that it would be this pie-in-the-sky kind of thing. Then we find that it ain’t and, boy, is it a rude awakening. [...] During the VET programme, we had one day, one day per week of classes at the vocational school. And it was the best day of the week! We could hang out [...] see all our friends. It was great”.

This young person’s first experience made him aware of how hard working life can be. He was not sufficiently prepared for the changes awaiting him in the VET programme. He refers to the school environment as being positive and reassuring.

VET dropout phenomenon and failed transitions

These situations show how failed transitions can be linked to individual factors such as career uncertainty and a difficulty adapting to the world of adults. However, the

problem of failed transitions is also linked to the context in which students make their choice of occupation and experience the transition; young people are asked to choose an occupation in a competitive apprenticeship market, enrol in a VET programme that requires them to adapt to the strong economic pressure exerted on host companies and quickly enter the world of adults.

We can therefore advance the hypothesis that the VET dropout phenomenon explained by problem of transition (Group II) may be a tangible sign of a more general failure of the transition from lower-secondary to upper-secondary level. The problems encountered may have to do with the fact that combined school/work-based VET programmes do not anymore always provide a gradual school-to-work transition. Indeed, with the current structure of Swiss combined school/work-based VET programmes (i.e. competition on the apprenticeship market; the inability to find a suitable apprenticeship position; the fact that some students have to enrol in bridge-year courses until a suitable apprenticeship position becomes available), students are confronted with brutal labour market realities right out of lower-secondary school.

More generally, we feel that the reasons mentioned by Group I to explain the VET dropout phenomenon can also be understood, in a broad sense, as also being linked to transitional difficulties. The negative working environment mentioned by the VET students could confirm the difficulties that young people encounter adjusting to the world of adults and shows that the economic pressures experienced by host companies have a direct impact on the relations that vocational trainers may or may not develop with VET students. The difficulties encountered learning the occupation was due to the unclear and ambiguous apprenticeship status. This could be an indication that VET programmes do not always provide a gradual school-to-work transition. In fact, some host companies view VET students to be a source of low-cost labour and profits, which makes it impossible to learn the occupation. The constraints of working life may also be an indication of growing tediousness caused by the economic pressure felt by host companies. These difficulties are a particularly acute manifestation of how ill-prepared young people are for this reality.

Practical implications and conclusion

While in some cases, former VET students may have negative feelings about having left the VET programme, in some cases, the event is perceived as a relief and/or as a positive experience enabling them to reorient themselves and pursue a new, more motivating career path in line with their aspirations. Regardless of the situation, it is important to perceive the process leading to the interruption of VET programmes as one of trial and error. In order to help VET students make it through this period under the best conditions, action needs to be taken at various levels, with all stakeholders concerned. Work could also be done with VET students, providing them with aid and support with the transition to the VET programme and helping them if they pull out of the VET programme. On a more general level, it would be interesting to determine what changes could be made in terms of work schedules, constraints, and tedious aspects to ease the transition to working life. Finally, it would be a good idea to set up guidance and support structures as well as channels for dialogue that would be available not only when VET students terminate their apprenticeship contract but rather much earlier in the process. Such structures should benefit all VET partners, i.e. VET students, vocational trainers, employers and vocational teachers.

References

- Cohen-Scali, V. (2000): *Alternance et identité professionnelle*. Paris: PUF.
- Hanhart, S. (2006): *Marché de l'apprentissage et pouvoirs publics*, Bulletin de la CIIP, 19, 8-9.
- Lamamra, N. & Masdonati, J. (2009): *Arrêter une formation professionnelle*. Lausanne: Andipodes.
- Masdonati, J. (2007): *La transition entre école et monde du travail: Préparer les jeunes à l'entrée en formation professionnelle*. Berne: Peter Lang.
- Michaud, P.- A. (2001): *Prévenir les ruptures, limiter leurs conséquences*, Panorama, 6, 8-10.
- OFFT (2008): *La formation professionnelle en Suisse. Faits et données*. Berne: OFFT.

A Dynamic Concept of Culture as a New Approach to Investigate the Gap between Schooling, Vocational Training System and the Youth

Stefan Wolf

*Institut für Berufliche Bildung und Arbeitslehre, Technische Universität Berlin,
Sekt. FR 0-1, Franklinstrasse 28/29, 10587 Berlin*

Summary: The following essay provides a short summary of the predominant aspects of the shifts in German educational system. Drawing on classroom observations, this paper claims that the oft-cited deficit perspective, which places the blame of deficiencies on students, cannot be sustained and that discrepancies between the school and the disposition of the students have to be taken into consideration. Using the concept of culture to examine vocational training offers a new and dynamic way to locate the variety of causes for these shifts and the phenomena attached to them, as well as a means to rearrange and apply them differently. Re-analysing some studies with the concept of culture as a heuristic toolkit shows the potential of the new approach. In conclusion the author proposes research activities using this toolkit to enlighten specific relationship between cultural factors of influence and teaching and learning processes in vocational schools.

Keywords: Culture, VET, vocational school

Outlining the problem

Major shifts have taken place in the German educational system in light of recent reports on vocational education and training. Studies on the German vocational education and training system show that only about 40% of all youth in any given year enter the vocational training system known as the dual system. Alternatively, the so-called „transition system“ is the fastest growing part of German vocational training (Autorengruppe Bildungsberichterstattung 2008). The effectiveness, that is, the transition quota of youth in the dual system or in fully-qualified school training, is in decline (see Beicht, Ulrich 2008). Shifts have also occurred in the dual vocational system, ones that have produced a relatively high number of dropouts in the last year of vocational training and in the numbers of students who failed their final exam.

A variety of studies have pointed out the institutional reasons for the shortcomings of the transition system. Basically, these studies recommend an improved management of the transition between leaving general schools and entering the work force (see Reißig, Gaupp 2007; Bojanowski et al. 2008). Other studies emphasize the subjective side of the transition system's flaws and focus instead on the youth. The failings of the system are explained by deficiencies on the part of the young people. These studies identify a number of discriminating factors that supposedly cause the deficiencies (see Biedebach 2006; Grundmann 2008; Bojanowski et al. 2008; Schulz 2003). For the shifts in the dual vocational system the poor vocational literacy is named as one main reason.

Insights from participatory observation

Despite the large number of studies that adopt the deficit perspective, the practical experience, in fact, reveals a wide-ranging and non-uniform picture of the capabilities and knowledge of these youth often categorized as underprivileged and marginalized. These assumptions are based on experience with students enrolled in a two-year, shortened vocational training. These youth have troublesome educational biographies and difficult life experiences. Their stance on learning was identificatory, provided that they were not confronted with a stolid or indifferent learning endeavor. They wanted to be told by me what material they needed to know. Broadly speaking, their method of learning was tied to their opinions. They found it difficult to transfer their everyday knowledge to a more abstract way of thinking, as is required in math or technology. It was, however, interesting to observe how these students were able to positively portray their acquired knowledge verbally in contrast to the quality of their written work on the same topic. One thing that surprised me was that many of these students could not imagine the immediate future, that is, they seemed bound to the present. This was not a perpetual repetition of what then would be the past (Gurjewitsch 1997), but rather a fortuitous succession of events. Remarkable, too, were the ways in which this group of students came to their conclusions in the classroom. One could characterize their decision-making system as spontaneous, intuitive and with minimal intellectual reasoning. In no straightforward terms did they employ rational or logical thought or deliberative analysis. There appeared to be a serious gap between the students' capabilities and their interests they learn from their social environment and every day life on the one hand. And on the other hand, the things that are important in school, particularly concerning their relationship to school and the expectations and requirements that school demands (Teese, Lamb et al. 2009; Bourdieu 1997; Bachmair 2007; Grundmann 2008; Veen 2007; Biedebach 2006; Geffert 2006).

Culture: A dynamic concept

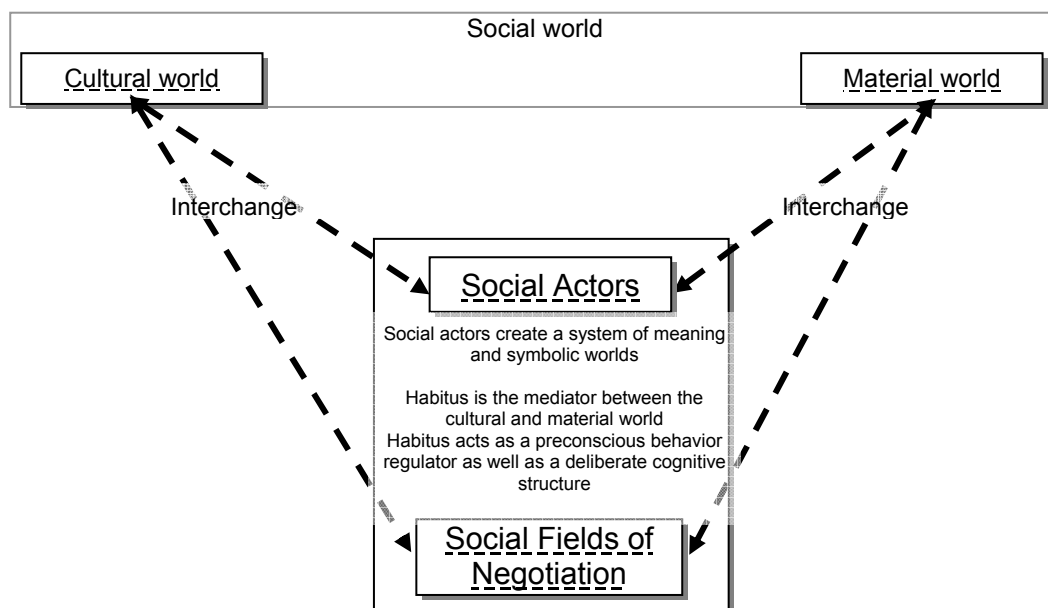


Figure 1: A Dynamic Concept of Culture

To use the concept of culture in the context of educational processes, it is helpful to place the social subjects at the centre of the analysis, yet without assigning the subject too much autonomy.

The subject and the social world are interdependent and mutually influence each other (Elias 1976). Culture is a result of this interdependent social process. Humans –social subjects- interpret the social influences around them; thus, they construct new or altered symbolic worlds and structures of order (Geertz 2003) and with these new symbolic forms interact again with the social world. This interaction between social actors and the social world takes place in highly contested social fields, in which the constructed cultural system of meaning and the symbolic world show their effectiveness on different levels. Following Bourdieu, the social world can be analytically divided into a world of goods and groups; in other words, the material world and the cultural world. Social actors are subject to the influences acted upon them by both of these „worlds.“ In order to secure the subject’s place in a social field, as well as to improve the subject’s circumstances, the subject reinterprets the external influences acted upon him/her from both of these „worlds.“ Culture here is understood as a dynamic outcome of a social process of interaction that is internalized as pre-conscious regulator of behaviour as well as a deliberate cognitive structure. From this level of interpretation on the part of the social actor arise new, different and possibly unfamiliar and unknown cultural elements that can be called alter-cultural factors of influence. Similarly, the cultural and material influences interplay with the subject’s social field of negotiation -the contested social fields (Wolf 2009). This model is still complex and does not lend itself to any easy further reduction. However, this model makes it possible to classify the multiplicity of influence factors in the social world that have been identified by analysing a lot of concerning studies in the realm of development politics and vocational education and training cooperation. Employed as a heuristic tool, this cursory overview of culture as a dynamic concept made an analysis of this jumble of factors possible. This cultural perspective is useful in examining the failures of the vocational training system; this concept offers an analysis of individual learning and teaching processes that can be applied and proved in the classroom and should be developed.

Selected studies employing a cultural perspective

Cultural factors of influence on the social field of negotiation

In this section, I examine the main factors that influence the primary recipients of vocational educational schemes. The multitude of factors influencing the social and work environment of this target group will only be mentioned insofar as to note the shifting standards of vocational teaching and training towards more complex learning arrangement due to the changing standards of skilled work in the workforce area. In our model this factor can be located in factors of influence from goods and job market (Grundmann, 2008; Veen 2007). In our model, both the school mechanisms of distinction and the selection mechanisms of the teachers can be located in systemic-institutional factors of influence (Bachmair 2007; Teese, Lamb et al. 2009; Bourdieu 1997;). Similarly, one can locate factors like the manner in which the lesson plans are arranged (Straßer, Koch 2008; Bojanowski 2008), the media instruction equipment, or the possibility to work with prepared didactic specialized texts (Neugebauer, Nodari 2008).

Cultural factors of influence on social actors

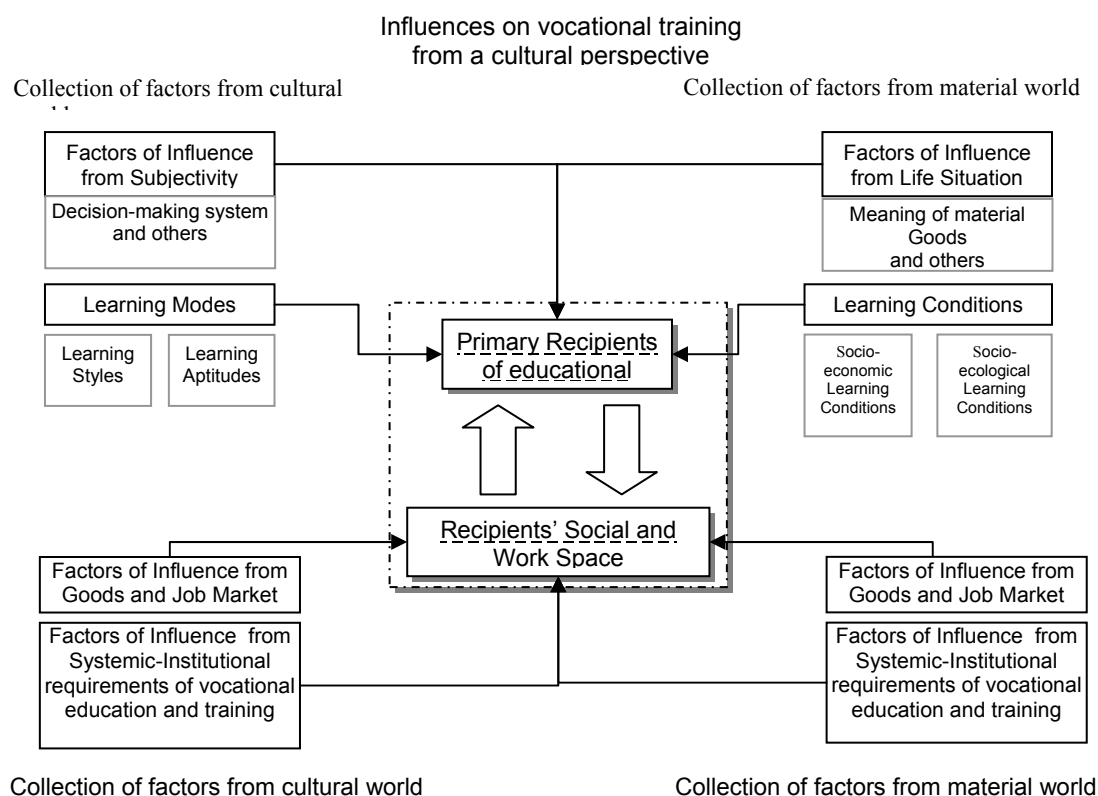


Figure 2: Cultural Factors of Influence on Vocational Training

A multifaceted examination of vocational youth's linguistic possibilities can be classified and analyzed under the rubric of a complex of factors named *learning modes* (see Schulz 2003; Stanat 2009; Biedebach 2006; Bachmair 2007). In the model above, different *learning modes* are broken down into *learning aptitudes*, that is, externally perceived aptitudes, skills and knowledge and into *learning styles*. Additional factors connected to *learning aptitudes* are accounted for, such as: diagnosed learning disabilities, difficulties concentrating, lack of endurance and student disruption (see Schulz 2003). At the same time, it is evident that youth confidently demonstrate a sophisticated command of the digital world, for example, the ways in which they can navigate cell phones or the flood of information on the Internet (see Bojanowski 2008). Due to this digital proficiency, one can now speak of a different reading behaviour, which in turn denotes a different way of learning (see Bachmair 2007; Veen 2005; Veen 2007).

A second set of factors analytically attributed to *learning modes* is a student's *learning style*. Learning styles convey internal dispositions as an outward expression of the social subject's mental, physical and societal conditions. This would include such observed phenomena as low self-esteem, which is notably attached to an extraordinary overestimation of one's own capabilities, a very problematic social behaviour, less motivation and a lack of autonomy and self-responsibility (see Schulz 2003).

Moreover, additional factors from the studies could be categorized into our model. The studies summarize them as social, individual and market driven factors which lead to discrimination (see Bojanowski 2008a). It remains to be seen whether the designated forms of these three factors can be categorized analytically to the still

mentioned *learning modes* or to the not yet mentioned complex of factors of influence. The so-called *learning conditions* allow integrating factors coming from the material world which influence teaching and learning processes. These are grouped into *socio-economic* and *socio-ecological learning conditions*.

Family income is considered a *socio-economic* factor that directly influences access to knowledge and information. Similarly, the need to contribute to the family income also hinders a student's school attendance or to pursue further training. Financial stress, and the inability to cope with it, invariably has a negative impact (see Schulz 2003). Family situation and living environment are included under *socio-ecological learning condition*, which impacts the learning process. One could also include the difficulty in negotiating encounters with government offices and authorities such as the police or justice system. Health, nutrition and hygiene issues can be counted here as well (see Schulz 2003). The speed of technological change, especially in media and communication, can also be considered part of *socio-ecological learning conditions*, since this speed of changing technology has such a powerful impact on teaching and learning processes (see Veen 2007; Bachmair 2007).

Conclusions

The dynamic concept of culture to investigate vocational education and training introduced here has potential to shed light on educational processes from a cultural perspective. Other studies from different perspectives can be re-evaluated and also benefit from this cultural concept as well as put into order the already mentioned multiplicity of influences and phenomena. In order to employ this potential to its full use it is necessary that unanswered questions are dealt with and that related research is set up. Further research is necessary in order to elucidate what the additional factors of influence from the cultural and material world would look like and which of these factors would play a role in the educational process. A first clue is the insight gained from the results drawn from studies on development policies (see Wolf 2009). However, it still has to be proven if these results are suitable for educational processes. Additionally, it is important to explain the ways in which schools can have a positive impact on the factors of influence that students bring with them, and to identify the position the school might be in to change the habitual disposition for students' educational success.

Yet another, more theoretical conclusion is needed. Until now, there is no concept of culture that serves as an appropriate tool to illuminate teaching and learning processes from a cultural perspective in schools. It does not help that the concept of culture is a controversial one in the German field of education research. Moreover, when the concept is applied, it often serves to essentialize the behaviour and views of migrant pupils. (see Yildiz 2008; Abu Lughod 1991; Stanat 2009) Educational studies that employ culture as a category of analysis end up focusing almost entirely on the experiences of migrant children, even though the deficiencies outlined in this paper are found across the German social spectrum. The cultural model outlined in this paper should be further developed and empirically examined in order to help expand the research focus in the field of education.

References

- Abu-Lughod, L. (1991): Writing Against Culture. In: R. G. Fox (Ed.), Recapturing anthropology, proceedings of a seminar (...). Santa Fe, NM: School of American Research Press, 137–162.
- Autorengruppe Bildungsberichterstattung (2008): Bildung in Deutschland 2008.

- Bachmair, B. (2007): Migrantenkinder, ihr Leserisiko und ihre Medienumgebung, Aus Politik und Zeitgeschichte, 28-2007, 32–38.
- Beicht, U., Ulrich, J. G. (2008): Welche Jugendlichen bleiben ohne Berufsausbildung?, BIBB-REPORT, Ausgabe 6/2008.
- Biedebach, W. (2006): Modellversuch Vocational Literacy (VOLI).
- Bojanowski, A. (2008): "Tätigkeit" und "Kompetenz" im Diskurs über benachteiligte Jugendliche - ein heuristisches Tableau. In: M. Koch & P. Straßer (Eds.), In der Tat kompetent, Bielefeld: Bertelsmann, 183–194.
- Bojanowski, A. (2008a): Benachteiligte Jugendliche - strukturelle Übergangsprobleme und soziale Exklusion. In: A. Bojanowski (Ed.), Überflüssig? Abgehängt? Produktionsschule: eine Antwort für benachteiligte Jugendliche in den neuen Ländern, Münster [u.a.]: Waxmann, 33–46.
- Bojanowski, A., Eckert, M., Rützel, J. (2008): Aktuelle Debatten, Analysen und Herausforderungen zur beruflichen Benachteiligtenförderung, Berufs- und Wirtschaftspädagogik Online, bwp@ Spezial 4 | September 2008,
- Bourdieu, P. (1997): Politik, Bildung, Sprache. In: Die verborgenen Mechanismen der Macht, Hamburg: VSA-Verlag, 13–29.
- Geffert, B. (2006): Metaphern von Schule,. Hamburg: Kovac Verlag.
- Grundmann, H. (2008): Die Förderung der Sprachfähigkeit als Beitrag zur Verbesserung der Ausbildungsqualität in Schule und Beruf. In: K. Wilbers, T. Bals, & K. Hegmann (Eds.), Qualität in Schule und Betrieb. Erlangen-Nürnberg: Qualitus GmbH Publications, 110–119.
- Neugebauer, C., Nodari, C. (2008): Sprachliches und fachliches Lernen als Einheit, Einblick Nr. 3–Oktober 2008, 4–8,
- Reißig, B., Gaupp, N. (2007): Hauptschüler: Schwierige Übergänge von der Schule in den Beruf, Aus Politik und Zeitgeschichte, 28-2007, 10–17.
- Schulz, R. (2003): Entlastungsmöglichkeiten für Lehrende im Berufsvorbereitungsjahr - Effekte methodischer Variationen. Hamburg: Kovac.
- Stanat, P. (2009): Kultureller Hintergrund und Schulleistungen - ein nicht zu bestimmender Zusammenhang? In: W. Melzer & R. Tippelt (Eds.), Kulturen der Bildung. Opladen: Budrich, 53–70.
- Straßer, P., Koch, M. (2008): Subjektivierung von Welt - Tätigkeit als notwendiges Prinzip einer beruflichen Förderpädagogik. In: M. Koch & P. Straßer (Eds.), In der Tat kompetent. Bielefeld: Bertelsmann, 133–148.
- Teese, R., Lamb, S., Helme, S. (2009): Hierarchies of culture and hierarchies of context in Australian secondary education. In: W. Melzer & R. Tippelt (Eds.), Kulturen der Bildung, Beiträge zum 21. Kongress der Deutschen Gesellschaft für Erziehungswissenschaft, Opladen: Budrich, 71–92.
- Veen, W. (2005): 2020 Visions | Wim Veen's Projection.
- Veen, W. (2007): Homo Zappiens and the Need for New Education Systems.
- Wolf, S. (2009): Berufsbildung und Kultur. Tönning: Der andere Verlag.
- Yildiz, S. (2008): Interkulturelle Erziehung und Pädagogik. Wiesbaden: VS Verlag für Sozialwissenschaften.

Managing the Transition from School-to-Work – Empirical Findings from a Mentoring Programme in Germany

Martin Lang

*Fernuniversität in Hagen, Lehrgebiet Berufs- und Wirtschaftspädagogik
Universitätsstr. 11, 58084 Hagen, Germany*

Summary: The transition from general schooling into the German employment system has become more and more problematic for many pupils in recent years. Especially young persons with migrant background need special help from “Managing transition”-projects. The paper presents findings from a formative evaluation of a project in which qualified and professionally experienced mentors support pupils to find an apprenticeship training position. In the survey it could be found out that the mentoring programme had a lot of problems to overcome. For example it did not succeed in building a continuous and faithful communication between mentors and pupils. Moreover the pupils were unsuccessful in getting an apprenticeship training position although they overcame lethargy and started applying. Furthermore the mentors felt insufficiently prepared with regards to content and methodical design of the mentoring. As a result of the formative evaluation some recommendations are given that should optimize the continuing and extension of the mentoring programme.

Keywords: School-to-work transition, mentoring programme, young migrants, apprenticeship

Introduction

Every year nearly one million pupils are leaving school in Germany with huge career expectations. The majority of these pupils still prefer the so called “dual system” of apprenticeship for the transition from general schooling into the employment system. But this option has become more and more problematic for many of them in recent years. There are a lot of reasons for this situation such as lack of training positions, cognitive deficits or a missing career aspiration. Especially young persons with migrant background are discriminated above average and need special help (Konsortium Bildungsberichterstattung 2006; Granato 2006). The assistance in obtaining an apprenticeship is necessary because young migrants get less help from their parents than German pupils. One of the reasons therefore is the fact that migrant parents have normally no experiences with the German Dual system of apprenticeship by their own. So, they are not used to apply for an apprenticeship training position. As a result of these deficits “Managing transition” comes into place to support transition from school to VET in these cases.

The mentoring programme of the city of Dortmund tries to tie in at this point. In this programme – that took place in 2006 – qualified and professionally experienced mentors support pupils from lower secondary-schools which get not enough help in their social background to find an apprenticeship training position. The mentors try to build up mutual trust with the mentees, establish contacts with companies, prepare or improve application documents and solve problems by using their experience of life.

The mentors were acquired in the project with the help of a media campaign, personal contacts and a road show. The mentees were chosen by their school-teachers. The steering group of the project had the task to match mentors and mentees.

The experiences of this mentoring programme should be analysed with a formative evaluation whose findings are presented in this paper. The intention of the evaluation was to determine supporting as well as inhibiting conditions of this mentoring programme, to analyse the relations between mentors and pupils and to identify the potential for improvement of this mentoring programme.

Research design and empirical methods

The intention of the evaluation was to get information suitable to optimize the mentoring programme in consideration to continue and extend the programme. In detail the evaluation should answer the following questions:

- What are supporting and inhibiting conditions of the mentoring programme referring the expansion of the project?
- What problems appeared during the mentoring programme and how were they solved?
- How did the relationships between mentors and mentees develop?
- Where are the potentials with regard to optimize the mentoring programme?

Against the background of this research questions a formative evaluation design with three points of survey (ex-ante, during the mentoring programme and ex-post) was chosen. This empirical design seems to be appropriate to identify problems during the project and to develop improvements for the future (Balzer 2005: 226). At the beginning of the project objectives were formulated, stakeholders were identified and their interests, aims and starting conditions were determined. Following there was a survey at the middle of the project that should identify possible problems and the process of application for an apprenticeship training position. At last there was a questioning at the end of the project to get information about the experiences of all participants of the project. Especially it should be determined whether the project was successful in reaching the aims or not.

The survey was both quantitative with standardised questionnaires and qualitative with interviews (by telephone as well as face-to-face). At the first point of survey standardised questionnaires was used to ask mentors and mentees about their personnel situation, competencies and expectations. The participation was optional and anonymized. The following surveys focussed the progress and the results of the mentoring programme and used also written questionnaires.

Additional to these written questionings there were qualitative interviews with further stakeholders. The interviews were done oral by telephone and face-to-face. The formative evaluation tried to follow as far as possible the standards of evaluation developed by the German Society of Evaluation (Deutsche Gesellschaft für Evaluation 2004). These standards deduced from the Joint Committee on Standards for Educational Evaluation (Sanders 2006) should assure the utility, feasibility, propriety and accuracy of an evaluation.

Results

One of the empirical findings of the evaluation study was that the pupils were aware of their limited chances for finding an apprenticeship training position. In a self-

assessment they stated that they knew that their school achievements and their graduation were not sufficient for an apprenticeship training position. Furthermore they recognized deficits concerning their skills in mathematics, literacy and orthography as well as concerning key-competencies as motivation, learning capability, cooperation, persistency and reliability. Especially the latter is problematic because these key-competencies are considered as very important by companies.

Considering these findings it is not surprising that most of the pupils abstained from application for an apprenticeship training position so far. In case of applying they got only refusals. This result is very typical for these pupils as different empirical studies could determine (Raab/Rademacker 1996: 131; Prager/Wieland 2006: 81). As a consequence of these disillusioning experiences the pupils resigned more and more. During the mentoring programme it was possible to overcome this resignation and some pupils started applying for apprenticeship training positions – even though unsuccessful so far.

Furthermore in the survey it could be found out that the mentoring programme did not succeed in building a continuous and faithful communication between mentors and pupils, although all of them expressed this aim at the beginning of the project. The reasons for this failure are complex and individually different, but one reason probably might be that there was not enough time to provide confidence between the participants. The starting point of this mentoring programme was very inappropriate. There were only few weeks left to find a training position. In view of their special situation and the urgency of the matter the pupils were in a very critical phase. They had not enough time for trust-building activities or the improvement of school performance. Main focus was the use of the mentor's contacts in terms of getting an apprenticeship training position.

Another inhibiting condition of the mentoring programme was the fact that there had been no sufficient training of the mentors. So it was not surprising that the mentors felt insufficiently prepared with regards to content and to methodical design of the mentoring. Especially at the beginning they needed special help because all of them were professionally experienced persons but they had very little experiences with the way of living and the feelings of young people particularly if they were migrants. Therefore they felt left alone and asked for guidance and training concerning the topics conflict management, rights and duties of apprentices and presentational techniques. The mentors needed a discussion forum to exchange information, solve problems and support each other. Furthermore some of the mentors felt not able to inform the mentees about the various possibilities of vocational training besides the dual system which became more and more important in recent years (Euler 2000).

Lessons to be learned

As a result of the formative evaluation of this project some recommendations for optimizing these kinds of mentoring programmes can be formulated:

- The mentoring programme should start at least two years before the pupils leave school. Only at this time there will be the possibility to initiate adequate trust-building activities between mentors and mentees, to improve deficits of school performance and to develop a vocational choice. If this is done the mentees should start applying for an apprenticeship training position supported by the mentors. Moreover, empirical studies showed that especially weak pupils need more time for this process (Raab/Rademacker 1996).

- To avoid conflicts and frustration among the actors it would be helpful to fix agreements on objectives between mentors and mentees at the beginning of the mentoring programme. These agreements should document the specific aims and expectations of the participants.
- During the mentoring programme it is necessary that there are periodical meetings of all mentors in which they can address problems and their special needs of support. Furthermore the mentors can exchange their experiences with the mentoring programme. It could be useful to invite external experts to these meetings in order to discuss special aspects of apprenticeship.
- To meet mentors' requirements a special training programme concerning the topics conflict management, rights and duties of apprentices, cross-cultural communication and presentational techniques has to be developed. Course lecturers could be for example members of the youth welfare office, teachers from vocational schools, lawyers or professional trainer. To establish such a training programme sufficient personnel and financial resources had to be provided.
- As a result of the evaluation numerous stakeholder could be identified. To improve the mentoring programme it could be useful to build up a network consisting of as many persons and regional institutions as possible. The coordination of this network should be done by a steering group. The tasks of this group could be consultation, support and quality management. Furthermore it could be used as a service centre for actual and potential participants.

References

- Balzer, Lars (2005): Wie werden Evaluationsprojekte erfolgreich? Ein integrierender theoretischer Ansatz und eine empirische Studie zum Evaluationsprozess. Landau.
- Deutsche Gesellschaft für Evaluation e.V. (Hrsg.) (2004): Standards für Evaluation. Köln.
- Euler, Dieter (2000): Bekannt, aber nicht anerkannt – Zur Weiterentwicklung der Berufsausbildung in schulischer Trägerschaft. In: Zimmer, Gerhard (Hrsg.): Zukunft der Berufsausbildung. Bielefeld, S. 71-84.
- Granato, Mona (2006): Junge Frauen mit Migrationshintergrund – wenig Aussichten auf eine berufliche Ausbildung? In: Granato, Mona/Degen, Ulrich (Hrsg.): Berufliche Bildung von Frauen. Bonn, S. 98-114.
- Konsortium Bildungsberichterstattung (2006): Bildung in Deutschland. Ein indikatorengestützter Bericht mit einer Analyse zu Bildung und Migration. Im Auftrag der Ständigen Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland und des Bundesministeriums für Bildung und Forschung. Bielefeld.
- Lang, Martin (2007): Ausbildungspatenschaften als Element eines regionalen Übergangsmanagements. In: Berufsbildung in Wissenschaft und Praxis 2, S. 14-17.
- Lang, Martin (2007): „Alleine schafft man das nicht...“ – Erste Erfahrungen aus einem Patenschaftsmodell zur Unterstützung von Berufseinmündungen. In: Die Kaufmännische Schule 52 (2007), 3, S. 15-17.
- Prager, Jens U./Wieland, Clemens (2006): Neue Hoffnung für die Jugend beim Übergang von der Schule in den Beruf?! In: Schulverwaltung NRW, 3, S. 81-83.
- Raab, Erich/Rademacker, Hermann (1996): Verlängerte Suche und Berufswahl mit Vorbehalt. Neue Handlungsstrategien Jugendlicher beim Berufseinstieg. In: Schober, Karen/Gaworek, Maria (Hrsg.). Berufswahl: Sozialisations- und Selektionsprozesse an der ersten Schwelle. Nürnberg, S. 127-136.
- Sanders, James R. (Hrsg.) (2006): Handbuch der Evaluationsstandards. Die Standards des „Joint Committee on Standards for Educational Evaluation“. 3., erweiterte und aktualisierte Auflage. Wiesbaden.

The Transition from Secondary School to Vocational Education and Training

Damian Spiteri and Katya DeGiovanni

*Ministry of Education and Culture, Malta;
Institute of Community Services MCAST, Malta*

Summary: This study is focused on understanding how the transition from general schooling to vocational education is managed by students in Malta who are attending the Malta College of Arts, Science and Technology (MCAST) to read Health and Social Care. The participants in this study believe that vocational education and training (VET) is not appreciated by teachers at a secondary school level. They are determined to pursue further studies either using the course as a stepping stone to other courses or by carrying on with their studies at a higher level, thereby contributing actively to the starting up of the Health and Social Care profession in Malta.

Keywords: Transition, Care, Further Education, Post-Secondary Studies.

Introduction

This study explores how students of Health and Social Care view their transition to vocational education after having left secondary school and joined the Malta College of Arts, Science, and Technology (MCAST). The college is a government-funded educational institution that offers VET at no cost to students, although they may have to pay a foreign examination board fee for their registration if this is indicated. The Health and Social Care programme is offered within the Institute of Community Services which is one of the nine institutes at MCAST that altogether offer a wide range of VET provision. The setting up of MCAST in 2000 has not only served the purpose of bringing VET provision under one structure, thereby giving greater possibilities of quality assurance, but has also made it possible for students who lack the desired certification to further their studies. Generally, as Halpbern (2009) states, on attending school, such people would have covered a range of academic topics, but this may have led them “nowhere in particular” (p. 57) in terms of effective preparation for the world of work. At MCAST, over time, it is becoming possible for students to go from Foundation level which are level 1 UK National Vocational Qualification (NVQ) courses, to degree level. It is also possible for persons to join courses at a higher level subject to their satisfying the entry criteria for each level. There are thereby First Diploma Level courses (NVQ level 2), National Diploma level courses (NVQ level 3), and Higher National Diploma (HND) level (NVQ level 4 and 5) courses. In the area of Health and Social Care, HND level courses will be offered from 2009 while the top-up degree course (NVQ level 6) will be offered from 2011.

Methods and research design

This study uses a grounded theory methodology that involves seeking data that is meaningful to an overall research area, and, from then on, further developing it in a systematic manner to evolve a theory from the data as the research progresses (Glaser and Strauss, 1967, Dey, 1999). It has been commenced by the qualitative interviewing of around forty people in two focus groups.

These were constituted of two groups (classes) of students who are reading for their First Diploma. They were asked to engage in these classes during a 'free' lesson. The use of a focus group was favoured since it was assumed that the participants would feel more comfortable being interviewed amongst their classmates than if they were to be interviewed on a one-to-one basis by the researchers. This implied that the data obtained was less likely to be influenced by inhibitions that could translate into 'left-out data' (Morgan, 1998). All the participants were female other than for one participant in one of the groups who was male. Practically all the participants were young people who had just left secondary school. An exception to this was two female participants who are in their mid-twenties who were in one of the groups. One of them is married and has a child.

The focus groups were directed at asking the participants to brainstorm and discuss ideas about how they perceived their transition from secondary school to VET and whether the ideas that they had of VET when they were younger were still the same after their having joined MCAST. Interventions by the researchers were kept to the minimum and when used these were aimed more at keeping the participants in the focus group on track.

The discussions were recorded and transcribed. Initial categories that emerged from the data were then classified by the researchers using two sub-categories that emerged from the initial categories proposed. The first of these sub-categories, 'a career in care or otherwise' is based on such different aspects of the transition process as the rationale underlying their choice of Health and Social Care as a possible career path. The second, 'why choose MCAST?' is based on the different influences that enable or impede their transition to MCAST from taking place. The core theory proposed is that of 'influencing navigations' as it discusses the influences of their agency, the evolution of their own career aspirations, and the career aspirations of others who would study Health and Social Care at MCAST in the years to come.

Results

All the participants asserted that they were unsure of the reason why they had opted to follow a course of studies in Health and Social Care. This appears to not be influenced by either gender or age, since neither the male student nor the older students present varied in their uncertainty about the reason why they had chosen this route. The exploration in the focus group gave importance to this uncertainty as well as the lack of preparation from secondary school level of the different VET options that were available. It then progressed on to the reasons why they deemed their choice to attend MCAST (and thereby engage in VET) as a good one.

A career in care or otherwise?

As a formal area of study, Health and Social Care is still very new in Malta, and this could possibly explain why certain participants claimed that they had embarked on this course of study without being sure what this career entails. The participants attributed much importance to their work placements during their studies at MCAST in helping them to define for themselves what the roles that health and social carers take up. This work was undertaken in Adult Training Centres, Old People's Homes, Children's Homes and Special Schools. The care role to which these students are exposed to is more linked to the 'health' rather than the 'social' component of the profession. In fact most of the students agreed that they would not imagine

themselves in this role all their life and the reasons provided were various. One student put it this way:

“I don’t imagine myself working with Old People all my life. The pay is the same as the one I earn as a waitress so remaining a waitress would be more worth it. The other members of staff are not well trained and their attitude is simply not right. The pay must change if they want qualified carers to work in old people’s homes. However, this is something that we must work towards. We have to prove ourselves when we start working, If we don’t we’ve had it”.

Another participant saw this course in a different light. She saw it as a stepping stone leading to other options and opportunities. Since the First Diploma course in Health and Social Care is an entry requirement for the National Diploma in Child Care and also for the National Diploma in Health and Social Care, she saw it as leading on to further studies which were more directly related to the occupation she saw herself as taking up eventually.

“Although in the beginning, I do not know exactly why I started this course and not another, today, I would say that I think I will be happy only if I work with children. With old people I am happy but I prefer children. However, this depends on how qualified I manage to become. It is only if I can give a good service that I can expect a certain pay and it is only if I give an effective service that I would be able to get and keep the job.”

Why choose MCAST?

The participants spoke about lacking effective career guidance during their secondary education. They said that they had heard much more from their guidance teachers about academic courses than they had about those that are vocational in nature. One participant said *“I think that to certain teachers, students coming to MCAST were failures. The successful ones were those who moved on to Junior College [Sixth Form] and from then on to University.”* Stating this, on joining MCAST, they were not unhappy with their choice about taking up VET. They found the environment one that was structured and they saw this as helpful. They also deemed lectures to be interesting and relevant. One participant said *“There is less stress here because you are given assignments rather than tests and you know the learning outcomes of each module”*.

Core Theme – the notion of “influencing navigation.”

This study has been informed by the voices of the participants who have accentuated the relevance of work-placements in giving them a sense of where the course was leading them to and the way their studies are structured at MCAST. It appears that the skills, qualifications and credentials that the participants deem that they are receiving from reading Health and Social Care at MCAST are seen by them strongly related to both current and future labour market attainment, something which is a cardinal aspect of effective VET provision (Halpbern, 2009).

The participants see themselves as having greater choices in the labour market with VET qualifications. Evans and Furlong (1997) propose four metaphors to show how such choices have evolved over time. They begin in the 1960s. This was when the school to work transition process was perceived as one that was highly linear. At this time, young people were placed in jobs where it was believed that society needed them the most. In the 1970s, Evans and Furlong attest that a shift was experienced. Society changed from being based on Fordist industrial structures to post-Fordist ones. They observe that whereas the Fordist era had been characterised by large industrial units that provided employment opportunities for unqualified youth labourers, as seen in the 1960s, in the post-Fordist economy, transition processes became increasingly complex. Government-designed pathways

emerged. In Malta, training schemes, such as the Extended Skills Training Scheme and the Auxiliary Workers Scheme, were developed so as to facilitate the school-to-work transition processes of young people. Transitions from school to vocational training generally took place by means of these schemes. In the 1980s, Evans and Furlong use the metaphor of the school to work transition process as being something protracted to connote how the transition from school to work could no longer be portrayed as a simple trajectory in which young people could be steered to positions in the labour market. Rather, personal discretion had to be used not only regarding what job was to be taken up and how it was to be taken up, but more importantly, as to *when* it was to be taken up - at which stage of one's post-school career it was to be embarked upon. It was no coincidence that, at this time, in the Maltese context, the demand for skilled labour was increased (Delia, 1994).

Finally for the 1990's, Evans and Furlong use the metaphor of 'navigation' to depict how people took action towards their own aims and targets. They 'navigated' their way through the transition process with raised expectations of choice. Preparing people for effective school to work transitions implied their having access to skills that needed to be flexible enough to be applicable to different job-contexts as well as conducive to people's participation in life-long learning (Furlong and Cartmel, 1997, Hannan, Raffe and Smyth, 1996, OECD, 1994, Walther, Hejl, Jensen, and Hayes, 2002).

The participants deem that MCAST offers them a choice since they see working in Health and Social Care as a choice. It emerges from this study that the participants see their future as very much depending on them as pioneers in the field of qualified personnel working and operating in the Health and Social Care field in Malta. They are thereby engaged in a process of "influential navigation" since they do not present themselves as passive recipients of the services of MCAST undergoing a transition to the labour market. Rather, they see themselves as being in a position to influence their own and the transition of others both in the present and in the future, by becoming better qualified and by offering a professional service that would be readily acknowledged by society at large and thenceforth rewarded accordingly.

References

- Delia, E.P. (1994): A labour market in transition. In Sultana R.G. and Baldacchino G. (eds.) *Maltese Society: A Sociological Inquiry*. Malta: Mireva Publications, 461-481.
- Dey, J. (1999): *Grounding grounded theory. Guidelines for qualitative inquiry*. San Diego, California: Academic Press.
- Evans, K., Furlong, A. (1997): Metaphors of youth transitions: Niches, pathways, trajectories, and navigations. In J. Bynner, L. Chisolm, & A. Furlong (eds.), *Youth, citizenship and social change in a European context* Aldershot: Ashgate, 17-41.
- Furlong, A., Cartmel, F. (1997): *Young people and social change: Individualisation and risk in late modernity*. Buckingham: Open University Press.
- Glaser, B., Strauss, A. (1967): *The discovery of Grounded Theory*. Chicago: Aldine.
- Halpbern, R. (2009). *The Means to Grow Up*. New York: Routledge.
- Hannan, D., Raffe, D., & Smyth, E. (1996): *Cross-national research on school to work transitions: An analytical framework*. Background paper prepared for the Planning Meeting for the Thematic Review of the Transition from Initial Education to Working Life, 26-27 September. Paris: Organization for Economic Co-Operation and Development.
- Morgan, D. (1988): *Focus groups as qualitative research*. Newbury Park: Sage.
- OECD (1994): *The OECD Jobs Study: Evidence and Explanations*. Paris: Organization for Economic Co-Operation and Development.
- Walther, A., Hejl, G.M., Jensen, T.B., & Hayes, A. (2002): *Youth transitions, youth policy and participation*. State of the Art Report prepared for Research Project YOYO and coordinated by IRIS, Tubingen.

Experiential Learning Assessment and Competence Development for a Second Career: the Case of Alternating Training Programmes for Professional Promotion

Philippe Astier and Lucie Petit

ISPEF, Université Lumière Lyon-2 – 86, rue Pasteur - 69365 Lyon cedex 07
SEFA, Cueep Lille-1 – 9, rue A. Angellier - 59046 Lille cedex

Summary: In France, apprenticeship as a system of training has become widespread at every level of qualification. Usually called alternation, it becomes the fast track for a professionally oriented education and for a successful integration in the labour market. This system is particularly efficient in initial training. But what about an alternating programme occurring during an occupational promotion? This paper aims at describing the development of a tool designed for competence diagnosis built for a school of civil service. The latter trains executives-to-be starting a second career. At the opening of the training programme, the tool use highlights the role of experience either as a potential obstacle or as an asset for the new position.

Keywords: Activity, experience, assessment, competence, diagnosis

Introduction

In France, since the 1980s, the system of alternation¹, borrowed from the model of apprenticeship, has become widespread at every level of qualification, from secondary to higher education. It is based on the succession of periods during which one practices the activity in the workplace and periods during which he or she gets acquainted with general or technical knowledge.

Most experts agree on the efficiency of alternation, particularly in initial training (Schuetze and Sweet, 2003), to acquire competence and to integrate a community of work as community of practice (Lave and Wenger, 1991). But, when it is an alternating training occurring during professional life on the occasion of an occupational conversion or a promotion, the topic of experience assessment turns out to be acute.

The beginning of a second career raises the issue of skills acquired in comparison to those one should attain: it underlines the influence of previous learning and experiences either as a potential obstacle or as an asset for the professional evolution. Thus, it is necessary to develop a new professional identity and a different habitus (Bourdieu, 1990) to act within another community of practice. Consequently, to estimate the experience of each one implies the association of an instrumental function (to identify competence build up by each) with an identity dynamics.

This paper describes the development, by the authors, of a tool of competence diagnosis intended for the training of secondary cycle state school inspectors. The

¹ - It covers work contracts (apprenticeship and professionalization contracts), but also compulsory internships necessary to obtain higher education qualifications (bachelor's or master's degree).

purpose of the tool is to adjust the content of alternation to trainees' experiential learning and knowledge. Since 2006, it has been used for 90 laureates.

The context

The career of secondary cycle state school inspector is open to National Education personnel according to prerequisites (degree, seniority, position), and after a competitive recruitment process. The candidates distinguish themselves thanks to the variety of their education, their age (46 years old in average), as well as their professional experience within the institution (teacher, principal, advisor...).

The main duties of a secondary cycle school inspector are: the assessment, the management, the promotion and the coordination of public policies. This requires a specific training programme implemented by the National College for Education Management (ESEN)². The role of this civil service school is to train administrative and pedagogical executives employed by the Ministry of education.

The training of public school inspectors lasts two years and focuses on culture and management missions. It consists of two parts: a hundred days take place discontinuously at the ESEN and the rest in a local education authority where the trainee is appointed. During this alternation, oriented by a tutor, he or she holds an inspector's position on restricted fields of mission and conducts usual tasks with the responsibility of files whose difficulties are calibrated. At the end of the second year, the secretary of Education decides on his/her permanent staff status and validates both the training and the permanent entrance in the body of inspectors.

Issue at stake

In 2004, the ESEN decided to change part of the secondary cycle state school inspectors training programme, and more specifically the stage of placing. Three questions guided this change: Who are those laureates? How does their experience influence their evolution? What should their training deal with?

A placement focuses on the trainees' existing skills and knowledge. Their initial situation is compared to the targeted occupation viewed as a collection of competences required to practice it; or, in comparison with the training programme as a list of defined contents to attain. The diagnosis tool was built for this stage.

Following numerous authors (Barbier, 1994), we consider that the notion of assessment can be defined as a means to combine an activity of measure and an attribution of value by comparing a *referee* (competence of every trainee) to a *referent* (characteristic competence of the position of inspector). Hence, the ability to comprehend the competences is essential. On that particular point, practices go from a methodological Charybde to Scylla, however both are unsatisfactory.

On the one hand, one assumes that competence is attainable for an outside observation. He or she favours the dimension of measure and focuses on the trainee's performance thanks to tests built for this occasion. On the other hand, one assigns to the trainee a monopoly of access to relevant information and the consciousness of all the elements involved. He or she prefers a purpose based on the subject that relies on the trainee's words and account of his or her experience.

Our conception of activity makes us consider that understanding an action does not consist merely in the outside description of acts (Leplat, 1997; Clot, 1999).

² - École supérieure de l'Éducation Nationale.

Besides, the notion of incorporated competence (Leplat, 1997), pre-reflective dimension of action (Vermersch, 1994) or even habitus (Bourdieu, 1990) leads us to refuse the premise of an individual lucidity. The methodological difficulty lies in the access to the subjects' competence without taking refuge in the speech dealing with the action of others, or in a linguistic presentation of oneself.

This methodological issue led us to reconsider our theoretical options, and to rethink the matter of assessment in the fields related to the understanding of work and specifically of work experience. The theories of activity constitute our theoretical framework (Leontiev, 1979; Vygotski, 1986) and particularly vocational didactics³ (Pastré and Samurçay, 2004; Vergnaud, 1996). By articulating cognitive psychology, activity analysis and training engineering, this framework offers a specific approach on issues raised by competence assessment.

For vocational didactics, competence is a subjective mobilization of heterogeneous resources, different from one person to another. It appears and then consolidates through action. Specific to a work situation, competence do not exist irrespective of an activity. It could be characterized by a work analysis which highlights the internal organization invariance of the actors' activity (Vergnaud, 1996), regardless of action singularity and contingencies that are always different. Two concepts - the scheme (Vergnaud, 1996) and the conceptual structure of a situation (Pastré and Samurçay, 2004) - represent this cognitive organization which contributes to the definition of competence.

Such definition requires the development of assessment situations including this cognitive organization in a specific environment. Our model offers three phases:

- The design of the *referent* founded on an activity analysis;
- The elaboration of the *referee* founded on experience analysis, followed by a confrontation between acquired competence and the *referent*;
- The development of an assessment situation in order to estimate the trainee's skills and provide a value.

The diagnosis tool

The tool developed deals with gaps between different elements (fig.1). This is possible thanks to the confrontation of experience regarding the intended activity.

1. The *referent*

The *referent* development was made after the definition of seven significant situations of the inspector occupation. This allowed an activity analysis⁴ based on the theoretical framework of vocational didactics. Free from subjective and local variations, the final synthesis of this analytical part drew stable elements and dynamics of every competence from each chosen situation: purposes of action, rules of action, indicators, reasoning and knowledge.

The *referent* can be helpful for the training programme: significant situations can be useful as training situations since the competencies performed are necessary in

³ Vocational didactics appeared in the mid-1980s. Through work analysis, it seeks to take into account key elements in competence development (action, tools, peers, work organization, knowledge and experience) in order to design appropriate training programmes. Its theoretical framework stems from the encounter of different fields: (1) adults training engineering; (2) cognitive and development psychology, especially Vergnaud's work; (3) the French tradition in ergonomics.

⁴ After a training, associate trainers gathered data according to a protocol: observations and self confrontation interviews on observation records of 50 inspectors.

numerous circumstances. Above all, the *referent* is a support for the diagnosis of competence: it provides a representation of the job's significant situations with elements and dynamics of competence to attain.

2. The referee

It has been developed from a biographical analysis. This section aims at distancing oneself in regards to the activity and working contexts as well as realizing that he or she has attained the targeted competences. During the summer, every laureate writes about his or her work, social and training experience. Based on the diversity and the singularity of his or her experiences, the trainee examines what he or she has achieved: how and with which means.

The record from this experience analysis is confronted to the *referent*. This comparison determines whether the trainee has the necessary resources to act in the inspector significant professional situations. It introduces a hypothetical degree of command by providing indicators. A summary constitutes the initial diagnosis.

3. The assessment situation

The competence analysis from the *referee* constitutes the assessment situation. It takes place in mid-September (trainees are on duty) during an individual interview with an associate trainer. The initial diagnosis undergoes an analysis: it is contradicted to be assessed again based on both the *referent* and the associate trainer's specific experience, an inspector on duty. A link is established between experience, significant situations and local education authority.

This section leads to a final diagnosis. Every trainee ratifies his own plan of professionalization including matters of priority and modes of training.

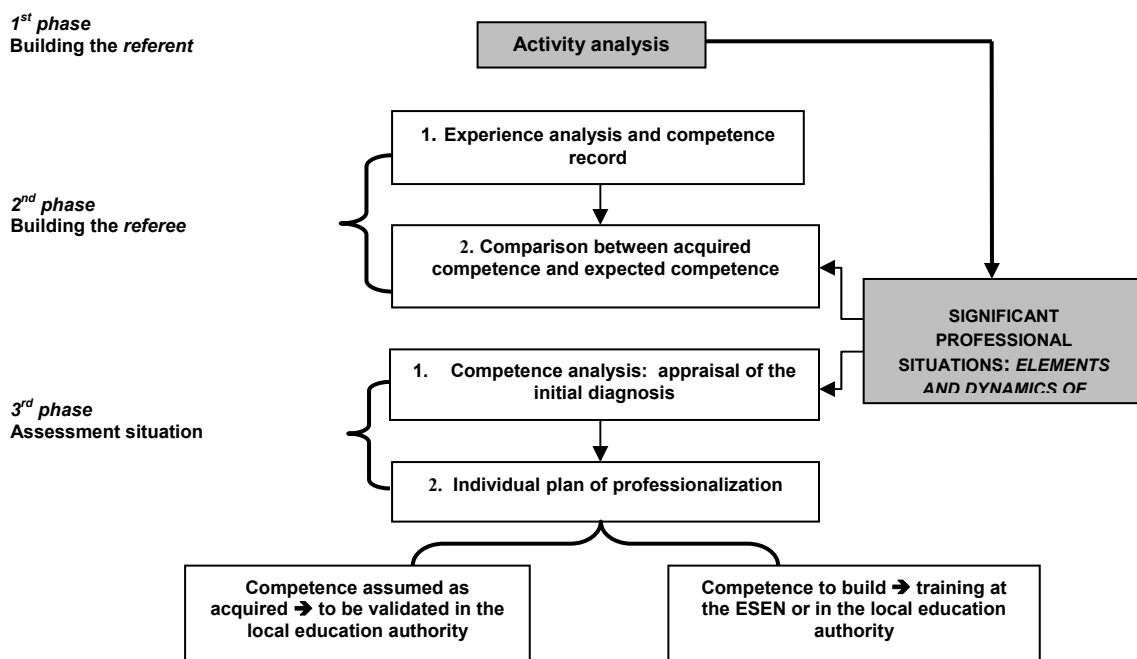


Figure 1: Competence diagnosis

Discussion

No empirical research has been conducted on the effects of the implementation of this tool. However, we can underline some key points.

The relevance of establishing competence assessment on activity and experience must be understood by all the stakeholders. It avoids the trainee's self-censorship which could lead him or her to the development of improved curriculum vitae; it should not entail the temptation of superficiality in the estimate of competence among associate trainers, or to transform the tool of diagnosis into the prescription of a "one best way".

The aim of the tool must be clear for the training programme actors: is its purpose pragmatic or epistemic? Should the assessment consider gaps to be an official report of competence or should it be a zone of development (Vygotski, 1986)? Both opinions do not exclude themselves and are complementary. However, it is necessary to make the difference between them in order not to lose the interest in the act of assessment.

For trainees, the suggested tasks could raise difficulties as far as identity is concerned but also from a cognitive standpoint. Those tasks stir up the inherent anxiety in career change, and underline the impossibility of recounting experience through the speech. This is not insignificant in the delicate phase of both beginning a training programme and taking a position (Bourdieu, 1990) in a new occupational field. The articulation of identity dynamics and cognitive ones, operating at the level of the implementation of the programme and beginning with the use of the tool of diagnosis, seems essential to us.

References

- Astier, P. (2007). Alternance construite, prescrite, vécue. *Éducation permanente*, 172, 61-72
- Barbier, J.-M. (1994). *L'évaluation en formation*. Paris: PUF
- Bourdieu, P. (1981/1990). *The Logic of Practice*. Cambridge: Polity Press
- Clot, Y. (1999). *La fonction psychologique du travail*. Paris: PUF
- Collin, K. (2004). The role of experience in work and learning among design engineers. *International journal of training and development*, 8 (2), 111-127
- Lave, J., Wenger, E. (1991). *Situated Learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Leplat, J. (1997). *Regard sur l'activité en situation de travail*. Paris: PUF
- Leontiev, A. N. (1979). *Activity, Consciousness, and Personality*. London: Prentice Hall
- Mayen, P., Pastré, P. & Vergnaud, G. (2006). Note de synthèse: La didactique professionnelle. *Revue française de pédagogie*, 154, Lyon: INRP, 145-198
- Narayan A., Steele-Johnson, D. (2007). Relationships between prior experience of training, gender, goal orientation and training attitudes. *International journal of training and development*, 11 (3), 166-180
- Pastré, P., Samurçay, R. (2004). *Recherches en didactique professionnelle*. Toulouse: Octarès
- Petit, L. (2007). Fonction structurante de la discontinuité dans l'alternance. *Éducation permanente*, 172, 89-97
- Schön, D. (1983). *The reflexive practitioner: How professionals think in action*. New York: Basic books Inc.
- Schuetze, H. G., Sweet, R. (Eds.) (2003). *Integrating School and Workplace Learning in Canada: Principles and Practices of Alternation Education and Training*. Montréal: McGill-Queens University Press
- Vergnaud, G. (1996). Au fond de l'action, la conceptualisation. In J.-M. Barbier (Eds.) *Savoirs théoriques et savoirs d'action*. Paris: PUF, 275-292
- Vermersch, P. (1994); *L'entretien d'explicitation*. Paris: ESF
- Vygostki, L.S. (1937/ 1986). *Thought and language*. Cambridge: the MIT Press

Career Education and Orientation Year: Effective Transition Tools from General Schooling to Vocational Education. The Case of Kosovo

Lumnie Mehmetaj

*Consultant on Career Guidance,
Bregu i Diellit 2, 18/7, 10000 Prishtina, Kosovo*

Summary: Vocational Education is considered an important bridge between school and work, but remains entirely theory-based in Kosovo, apart from some schools which have benefited from donors. Moreover, these schools are considered a "second choice" option or place where low achievers go to continue their study after lower secondary school graduation. Career guidance services practically did not exist to support a more effective transition from general to vocational education or to help to explore the world of work. However, most recent innovations that were introduced in career guidance in the education sector in Kosovo are promising. Among them are: (a) the designation of grade nine as an 'orientation' year aiming at orienting students to consider different options in academic and career terms; (b) the piloting of career education in grade nine to help students to get more information about the world of work and to develop their career management skills; and (c) as part of a 'Career Guidance Week' a 'Girls' Day' with elements of work-shadowing aims to help female students from lower secondary schools to overcome gender stereotypes regarding professions and to explore their career options in 'typical' male professions.

Keywords: Career guidance and education, orientation year, work shadowing, transition support services

Introduction

The vocational education system in Kosovo is almost entirely school-based and absorbs more than half (55%) of the total student population at upper secondary education level. It is not rare that students make their choice to join these schools after failing to enroll in general secondary schools/gymnasiums after the 9th grade of schooling (compulsory education).

Vocational programmes in Kosovo are still mainly targeted toward narrow specializations and practice is constrained by poor facilities, equipment and learning materials. It is therefore no surprise that the education system is often perceived as falling short of both student expectations as well as of providing the proper skills for the labour market.

Recent analysis confirms that vocational schools in Kosovo have no formal institutional links with local business in their regions.¹ Anecdotal evidence of teachers/instructors opinions shows that students with good practical learning are said to have a better chance of finding employment as opposed to those with no practical experience and that in many instances employers prefer them to university

¹ GTZ Survey on implementation of revised curriculum, April 2009.

students. The new VET law in Kosovo seems to take into account some of the current shortcomings and envisages a combination of school-based education with in-company training as well as a framework covering vocational qualifications and recognition of prior learning (RPL).²

Innovative approaches to managing the transition from general education to vocational education: Outcomes and impact of the new approaches

In the context mentioned above, recently introduced initiatives to ease the transition from general education to vocational education are promising, though it is far too early to assess their effect and impact.

Orientation Year

The curriculum reform of 2001 emphasized the importance of preparing students for successful inclusion in the world of work and put 'orientation' of students amongst the key aims in stages III, IV and V of the National Curriculum, with emphasis on stage IV the orientation year-grade nine³.

This is particularly important as at it is the stage at which young people begin to make crucial choices affecting the whole direction of their future education training progression and career orientation. For the first time MEST⁴ in 2003 started the 'achievement' test for 9th grade students to form their career ideas. Students have the possibility to choose further education according to the results from the test (usually those students achieving high results go to general/gymnasia and those with lower results go to vocational schools).

The first important step forward of the 'orientation' year to ease the transition from general education to vocational education was the introduction of career education in the 9th grade. In May 2009 this year new initiatives were introduced as part of Career Guidance Week "Career Information Day's" and "Open Door's Day".

Ten schools were chosen from all over Kosovo which are implementing career education and career teachers facilitated debates with students, teachers and parents to discuss career options for 9th grade students.

The conclusions reached from this activity were that discussions were very successful and students received information which helped them to choose vocational education. It was important that for the first time in Kosovo parents were involved in discussions about career guidance as they have such great influence on their children's decisions with regard to choosing a career.

Open Doors Day took place on 24 April 2009 in all vocational schools throughout Kosovo and students from 9th grade had an opportunity to visit them for a day and get information from the school staff about the qualifications that these schools offer.

Career guidance and education

² RPL system would motivate individuals between 20 and 40 years to return to the formal education and training system by accrediting their work experience or prior non-formal learning, as well as help entrepreneurs identify unrecognized and underutilized skills in the workforce.

³ The New Kosovo Curriculum Framework, 2001

⁴ Ministry of Education Science and Technology

Due to the scarce financial resources of Kosovo, a recent ETF feasibility study⁵ recommended embarking on a cost-efficient and cautious approach of career guidance expansion. It is necessary to take urgent action to ensure the continuation, stabilization and future mainstreaming of the pilot career education programme in the 9th grade.

MEST with support of EU funded CARDS project (KOSVET 3) introduced the piloting of career education in the orientation year (9th grade) as an elective subject from February to April 2008 in 34 schools all over Kosovo. One 9th grade class participated in each school (some schools had more classes who wished to participate on their own) and in total 16 teaching hours were delivered per class in one semester. Career Education was taught as an elective subject without additional cost as it was taken as one of the four elective subjects each school can autonomously opt for.

An evaluation of the project confirmed the success of the pilot both in terms of implementation as well as lessons learned for further improvement. It showed positive results and high satisfaction on both the part of the teachers and students. As a result, MEST decided to continue and extend the pilot to other classes of the same schools in 2008/2009. Apart from the commitment of the MEST to this project, one of the key factors for success was the remarkable dedication of career education teachers to this newly introduced subject.

The KOSVET project has trained eighty teachers to deliver the subject. Six of these teachers have had further training to train their colleagues in the future. Ms Sebahate Reqica, one of these trained teachers, states:

“Personally I enjoy teaching career education because it is an attractive subject for students; they also like tests about skills and personal qualities and characteristics. This subject helps them to make a decision about choosing a profession in time. The role of the career education teacher is very important because during the visits to different companies or institutions the students become aware which professions are demanded on the labour market and which profession would be suitable for them. The implementation of the pilot was not easy, but the enthusiasm of us career education teachers and our positive energy to help students helped to overcome many problems.”

In interviews with 9th grade students⁶ about their impressions on career guidance and how it could help them choose the right career, all of them stated that it helped them to be aware that career decisions should not be imposed by family, friends etc. Aulona Sylejmani, one of these students, states:

“Career education subject helped me to decide which career to choose between three that I already had in mind. I always liked agriculture but also I had thoughts of another two professions: forestry and economics. Our career teacher took us to visit a local agricultural school and it helped me to definitely decide on my career. I want to enroll in this school even though I know my friends will joke with me because I have chosen agriculture, as I am an excellent student and vocational schools have a lower prestige.”

Another student Hekuran Hoxha states:

“I have always liked computers since I was a child but I was not sure which qualifications I would need and what my employment prospects would be. My career teacher explained to us about vocational schools and the labour market so I got my answers. I have decided to become an IT specialist and I will enroll in technical school. The teacher explained to me that IT is in high demand in the labour market in Kosovo.”

⁵ Career Guidance policy and practice: Review of progress and feasibility of future interventions Helmut Zelloth (ETF), April, 2008

⁶ “Career Education - Choosing a Successful Career “ the school magazine “V. Domaneku” , Lipjan, June 2009

Job shadowing –Girls’ Day

The Girls' Day opened up wide future prospects to a generation of qualified young women. The girls who took part in Girl's day were supported by all interested parties which play an important role in their career choice.

For the second year, Girls' Day took place on 23 April 2009 and included around 2100 girls from 15 municipalities. The girls were able to stay for a day with different companies in order to shadow the work which may then help them to decide on a career direction. Ms Vlera Tahiri student who participated on Girl's day states:

“I have never thought about the possibility of working in a profession that is rather untypical for women, but now I would like to be a taxi driver. I believe that these kinds of professions are interesting and woman that work in these professions prove that they can achieve everything that a man could as well.”

Conclusions

- The orientation year'- 9th grade needs to be taken more seriously and 'literally' by providing to students real opportunities for orientation. The 'Open Doors Day' and 'Career Information Day' should be regular activities every year and extended to all schools throughout Kosovo.
- The inclusion of mandatory career education subject in all 9th grades after the third time of piloting (2010/2011) and it should be embedded in upper secondary education including vocational and general/gymnasia education in Kosovo.
- Girls' Day should be an annual activity and extended to all municipalities.
- Vocational schools should deliver competence based programmes which combine vocational and employability skills.
- Vocational schools and employers through a ministerial order should establish formal and regulated agreements for work placements.
- Student tracking system should be put in place to look at the school-to work transition problem and to have a proper skills forecasting mechanism.

References

- ETF (2009): Magazine-Kosovo embarks on career education, May 2009.
- GTZ-Kosovo, Career Guidance measures of the GTZ VET-Project, April 2009.
- Career guidance policy and practice: Review of progress and feasibility of future interventions in Kosovo-Helmut Zelloth, ETF, (2008).
- European Agency for Reconstruction (EAR), Final report on piloting career education in 9th grade in 2007/2008 (KOSVET 3 activity A.1.11.), Prishtina, June 2008.
- Mehmetaj, Lumnie, Elshani Sokol, Evans, Chris, Policies for career information, guidance and counselling in Kosovo, ETF working document as part of the 'Review of Career Guidance Policies in the Western Balkans', ETF, Turin, 2004.
- Guidance policies in knowledge society, trends challenges and responses across Europe, R.Sultana, 2004.
- OECD, Career Guidance and Public Policy: Bridging the Gap, OECD, Paris, 2004.
- Watts, AG, Sultana, RG, Career guidance policies in 37 countries: contrasts and common themes, International Journal for Educational and Vocational Guidance, Vol. 4, No 2-3, Springer Netherlands, 2004, pp. 105-122.
- OECD (2000): From Initial Education to Working Life: Making Transitions Work, OECD, Paris.

Boundary Crossing: Transitioning Students to Work through Authentic Employment-based Training in an Australian Senior Secondary VET Program

Terry O'Hanlon-Rose and Alan Roberts

*Australian Technical College, North Brisbane, Qld Australia
Centre for Learning Innovation, Qld University of Technology, Australia*

Summary: A common challenge among OECD countries has been the development of education and training pathways that accommodate student needs and interests at the upper secondary level (OECD, 2000). The introduction of trade-focussed Australian Technical Colleges (ATCs) has met with mixed response. The ATCs aim to create a supported transition from school to work through dual pathway programs enabling students to follow a trade career while completing their upper secondary studies. There has been little explicit examination of the effectiveness of such senior secondary school arrangements. Using one such Australian Technical College as a case-study, this paper investigates the perceptions of the employers and students who were associated with the college. Using mixed-methods consisting of quantitative perception surveys and focus interviews, the results of this study show that students and employers are very satisfied with the College and illustrate that students have made significant gains in relating their learning to the workplace and everyday life.

Keywords: Transition, school-to-work, employment, authentic

Introduction

The Organisation for Economic Cooperation and Development (OECD) thematic review of the *Transition from Initial Education to Working Life* (2000) identified that the common challenge among OECD countries has been to develop education and training pathways that can accommodate the growing diversity of student needs and interests at the upper secondary level, that offer tight and supple connections between initial education and the labour market. Additionally, education reform has been observed as playing a part of economic growth strategies as a means to stimulate human capital development (Akçomak & Weel, 2007). Recent responses in Australia to skills development at the upper secondary level include Trade Schools, Trade Training Centres in Schools and the development of Australian Technical Colleges (ATCs). While these responses seek to create stronger pathways for school students in identified skill shortage areas, the ATCs in particular are seen to be building on the success of the VET in Schools (VETiS) initiative in Australia (DEEWR, 2005). They represent an innovative reconfiguration of schooling to provide institutions that are focused on apprenticeships in areas of national skills shortage.

ATCs support students through both academic and trade training; with mentoring, career advice and business and employability skills. The ATCs were established to give students the opportunity to study a trade and complete their Senior Schooling qualification through Australian School-based Apprenticeships thus raising the profile of vocational and technical education in schools; and strengthening the training system as a whole (DEEWR, 2005). The ATC program has expanded student choice

in Australian schools by providing a dual qualification pathway to a career in the trades. Students can complete their trade, enter higher or further education programs or combine both on completion of their Senior School Certificate.

A thematic review undertaken by OECD identified a number of key features, central to effective transitions from school to work. These included: “a connection of initial education with work and further study; the provision of opportunities to combine workplace experience and education; tightly knit safety nets; and good information and guidance” (2000, p. 150). This study further grouped the four enabling characteristics into two constructs: Curriculum and Learner Support. The OECD thematic review characteristics of effective transitions from school to work were mapped to these two constructs (Figure 1). This mapping identifies aspects of the ATC program that reorganised curriculum enabling the transition from school-to-work to drive the authenticity of curriculum through the connection of industry and employment.

Curriculum Construct Drivers of the ATC delivery model included: incorporating learning in employment activity; situating learning in context (in this instance authentic employment); ensuring employment is tied to school; and crossing boundaries between school and work where teacher/trainers are located not only at the College but also train in the workplace alongside the students’ supervisors. The Learner Support Construct Drivers involved the clustering of the OECD thematic review characteristics of “developing tight safety nets” and “providing good information and advice” (OECD, 2000, p. 150) so that the learner is enabled through follow-up activities arising from the workplace supervision and connections made with the employers. The study identified the “four-by-four” apprenticeship-college rotation model as one of the key features which placed apprentices in work for a longer period than the traditional one day a week school-based model used by most of the schools delivering school-based apprenticeships in Australia. This uniqueness was also identified during a study of systemic innovation in the Australian VET system by OECD/CERI Expert Team (2008) which found that positives of the ATC initiative included this “four week apprenticeship-college rotational feature” (p. 21).

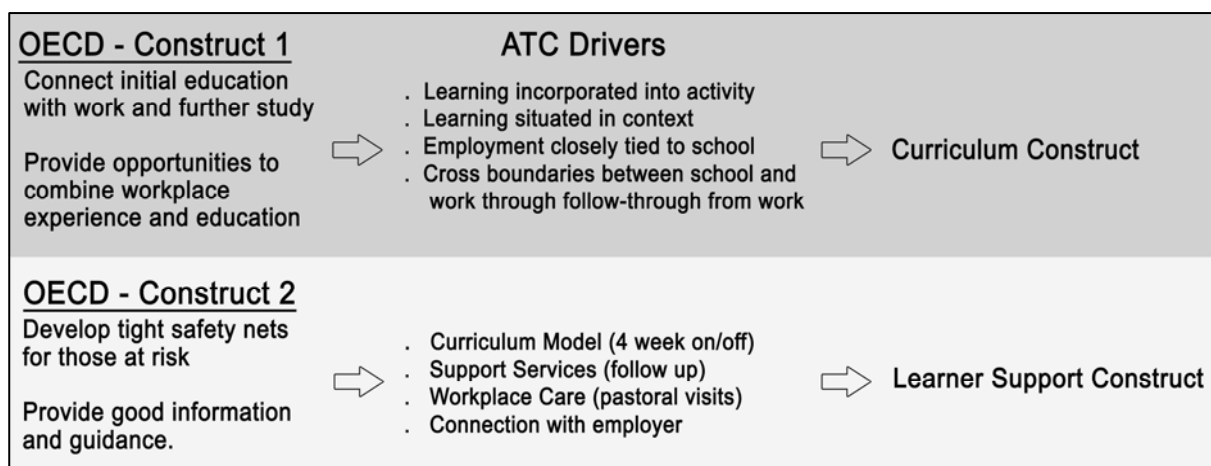


Figure 1: Aligning OECD features, ATC Drivers to Curriculum & Learner Support Constructs

Methods and research design

Case study methodology (Stake, 2006; Yin, 2003) is employed and mixed-methods are used in the analysis. A survey (266 students and 73 employers) was conducted to gather feedback in relation to the approach of immersing general education

subjects into a vocational context, as opposed to the alternative of embedding VET into general curriculum.

Quantitative Analysis – Surveys of Students and Employers

Quantitative surveys were administered to employers of students undertaking an Australian Qualifications Framework Certificate III (trade qualification) at the Australian Technical College – North Brisbane. To eliminate potential bias, an independent researcher was engaged to administer the surveys. There were 119 employers in the population and the response rate was 61.3% (73 employers). A Confidence Interval of 91-97% was calculated for this group. Additionally 261 students from a population of 301 responded to a student survey (86.7% response rate) with a Relative Standard Error of 1.8. A methodology using data from a number of questions, known as the Composite Satisfaction Rating, was developed to consistently determine whether or not a student or employer was satisfied or dissatisfied by their College experience.

Qualitative Analysis – Student Boundary Crossing Focus Interviews

Twelve students were purposively selected and interviewed to provide qualitative feedback on their experiences at the ATC. The College staff selected the students based on demonstrated 'distance travelled' from students' initial enrolment at the College. These focus interviews were transcribed and analysed using keywords and themes determining incidents within the conversation that indicated a transfer of knowledge and skills from College practices to a work or life situation.

Results

The survey indicated an employer satisfaction with the ATC program of 96.5% and a student satisfaction of 99%, based on composite satisfaction ratings. After completion of the program 98.5% of students either continued with their apprenticeship, undertook further study or was employed full-time in another position. This compares to the employment outcomes of apprentices and trainees in Australia in general where 92% of completers were employed nine months after completing their apprenticeship or traineeship (NCVER, 2009).

The students interviewed in relation to the study readily connected learning in their vocational program to work contexts and identified how their course of study allowed them to combine work and learning. The results support the OECD (2000) analysis that effective programs required curriculum and learner support that connected trade school learning to the workplace.

Student perceptions about their preparation for the workplace revealed that 89% considered that they were prepared for work and 82% believed they were supported in their apprenticeship. This compared to national full-time apprentice satisfaction level of 87.7% and 76.5% respectively (NCVER, 2008), demonstrating marginally higher satisfaction for the ATC on a national comparison.

The case studies analyses indicated that the relationship between the place of learning and practice is more than applying learned theory to practice. It is the process of the identification within the community in which an apprentice practices their trade and is a practical demonstration of Lave and Wenger's (1991) conception of Communities of Practice and Legitimate Peripheral Participation. Part of the student-apprentice community is at work and the other part is learning at school. Interviews confirmed that apprentices firstly identified themselves as a worker in the

industry which they belong and secondly related the trade training at school with work skills and practice thus authenticating learning in connection to work.

“Apprentices experience the schooling and trade practice as very dissimilar contexts with different norms and guidelines” (Tanggaard, 2007, p. 453); school activity is authenticated by the trade related learning which is connected to apprentices’ work in order to operate effectively. The interview transcript outlined in Figure 2 is a typical example of the 12 interviews and demonstrates “boundary crossing” between work and school, evidenced through the apprentice acknowledging that there are different situations in which he learns.

- **Interviewee C (Yr 12 Student-Apprentice):**
 - [...]it’s good to get different sort of people cause Mr X and Mr Y, they’re both different teachers and they have different ideas. So it’s good to learn from different people – three different people. So when I am here I learn this way, but at the worksite I may learn a different way, and a quicker, maybe easier, different or better looking way. So it’s good to learn from tradesmen who have different qualifications in different areas.
- **Interviewer:** So, three different people are teaching you to be a carpenter?
- **Interviewee C (Yr 12 Student-Apprentice):**
 - Yeah, they’ve each got different areas of being good at or special at certain things, specialties kind of things.
- **Interviewer:** So, that helps you get
- **Interviewee C (Yr 12 Student-Apprentice):**
 - Yeah, a bigger understanding of different things. Like not just about a set one thing, you’re learning in different ways so you can have an idea of how the other person – like the customer might want it a certain way too, and so if this person knows it and maybe not that person, you can go to this person and they can explain how they do it.

Figure 2: Transcript of interview with apprentice carpenter

The transcript illustrates how the young apprentice developed thinking that transcends the workplace and his learning at the ATC. The apprentice crossed the boundary between learning at work and learning at school. Realising that the learning at school and at the workplace prepared him for the way in which he related to customers.

This demonstrated the apprentice’s ability to transfer knowledge and skills across boundaries and is congruent with Tanggaard’s (2007) view that boundary crossing is the “instances where the apprentice identified that learning in both contexts was necessary to operate” in the real world (p. 463). Interviews with the twelve apprentices consistently revealed boundary crossing when learning is situated in authentic contexts and work. Additionally, the interviews highlighted the real world connections made by students through learning in these situated contexts established through the ATC Curriculum and Learner Support constructs.

Arguably, the ATC has much to commend it as a means of transitioning students from school to work. Nonetheless ensuring an effective transition from school to work, the ATC model remains an area for further research and consideration.

References

- Akçomak, I. S., & Weel, B. t. (2007). How do social capital and government support affect innovation and growth? Evidence from the EU regional support programmes. UNU-MERIT Working Paper No: 2007-009. Maastricht, Netherlands: Maastricht University. .
- DEEWR. (2005). Australian technical Colleges. Retrieved 15 February, 2008, from <http://www.australiantechnicalcolleges.gov.au/about.htm>

- Lave, J., & Wenger, E. (1991). *Situated learning : legitimate peripheral participation*. Cambridge [England]: Cambridge University Press.
- National Centre for Vocational Education Research, N. (2009). *Australian vocational education and training statistics: apprentice and trainee destinations, 2008*. Adelaide: NCVET.
- OECD. (2000). *From initial education to working life: making transitions work*. (No. 92-64-17631-4). Paris.
- OECD. (2008). *Systemic innovation in the Australian VET system: country case study report*. Paris: Organisation for Economic Cooperation and Development.
- Organisation for Economic Cooperation and Development. (2000). *From initial education to working life: making transitions work*. (No. 92-64-17631-4). Paris.
- Stake, R. E. (2006). *Multiple case study analysis*. New York: The Guilford Press.
- Tanggaard, L. (2007). Learning at trade vocational school and learning at work: boundary crossing in apprentices' everyday life. *Journal of Education and Work*, 20(5), 453 - 466.
- Yin, R. K. (2003). *Case study research: Design and methods* (Third ed.). Thousand Oaks: Sage Publications.

Prevocational Literacy: Towards a Maturity for Vocational Learning in Germany – Causes and Diagnosis –

Volker Bank and Kristina Porsche

*Chemnitz University of Technology, Chair of Vocationomics, Reichenhainer Str.
41/015, 09126 Chemnitz, Germany*

Summary: Every year a great share in German school graduates does not succeed in obtaining a place in the so called 'dual system' of vocational education. Recent and future demographic data indicate a huge decline in labour force potential within the next decades. Adolescents with a weak school performance will need to be integrated into the labour market more successfully than today. Thus, prevocational literacy becomes an indicator for the quality of an education system. In 2006 the Federal Agency of Employment presented a catalogue of criteria that allows an assessment of prevocational literacy of the individual. The diagnosis, however, is to be challenged for its measurement methodology. The diagnostic instrument will need to be refined. However, strategies of ecologically integrated teaching and learning will have to be at the core of the solution.

Keywords: Prevocational literacy, school policy, demography, diagnostic instrument

Entering the system of vocational education in Germany: hurdles and obstacles

Every year about 590,000 (595,000)¹ school graduates² take up employment in the so called 'dual system' of vocational education. At the same time, many do not succeed in obtaining a place within that system, which is at the heart of vocational education in Germany. As 'returning applicants' (Altbewerber) the formerly rejected applicants will try again the following year – or even many years in succession. Another possibility for the adolescent is to take up vocational education in another than the desired vocation.

The number of places provided for vocational education is restricted by the needs of the labour market. This market-driven selection process is the reason why selection criteria are not always transparent to the applicant. The most common reasons for rejection are the economic situation of the company (which may reduce the number of qualified personnel), a surplus of applicants, or the discrepancies between the requirements of the desired vocation and individual qualification. Employers generally choose the most suitable applicant for their company and the vocation in question. Nevertheless, it may happen that they reject all of the applicants for a lack in general skills, like reading, writing, calculus or other.

¹ Calculation on data of BMBF 2009: 9; BMBF 2008: 18; BMBF 2007: 11: The numbers show the average of the last 5 (10) years (2004 (1999) – 2008).

² Of about 937,000 (928,000) school graduates, calculation on data of BMBF 2009: 19: The numbers show the average of the last 5 (10) years.

Two factors apparently have moved the focus onto this problem: The subsequent PISA studies and growing awareness of the forthcoming demographic changes. This has led political and social actors to start examining missing qualifications of young people. Cognitive abilities, psychomotor capacities and personal qualities are studied in both Germany's school graduates and drop-outs. Moreover, a catalogue of criteria has been developed by the Federal Agency of Employment (Bundesagentur für Arbeit). In order to increase prevocational literacy, however, we are not facing an analytical problem: The whole ecological system of the adolescent has to be assessed (Bronfenbrenner 1994: 37). Demographic processes as quantitative indicators are equally important as qualitative criteria, e.g. the influence of school, family, or peer group.

We have to ask critically, to which extent an analytic tool on prevocational literacy (Ausbildungsreife), like the catalogue of criteria, depicts validly the individual's situation and puts it into the context of family backgrounds, labour markets and demographic changes? The necessarily following question would be: Does it help finding adequate forms of intervention to bridge the gap? – This question, however, will have to be postponed to later research.

Factors of influence

The analytical approach shall make use of both quantitative and qualitative factors. The most important quantitative feature is data describing demographic processes. This factor directly affects the educational and the economic sphere at the macro level. Qualitative criteria include different instances of socialisation and education as family, school and the influence of the peer group. These factors can be ascribed to the micro and meso levels of human ecology.

Quantitative factors: demography and the labour market

In Germany, there will be a drop in pupils by almost 20 percent until the year 2020³. This drop will find its continuation in the field of vocational education, and in labour force from 2015 onwards. Even high immigration rates and high employment rates of women will not compensate the demographic effects (Fuchs 2005: 261). Even though the 'demographic gap' has not reached the labour force yet, the prospective gap justifies the employers' concern in finding adequate staff in the years to come: Starting in 2015 the younger cohort is too small in number to meet the demand of skilled workers and the supply of manpower is slowly declining (Bott et al. 2008: 11).

Due to the delicate relations between demand for and supply of places in the 'dual system' in former years, there is a significant number of returning applicants that pour into that system every year: In 2008 more than 320,000 returning applicants were registered at the Federal Agency of Employment (BMBF 2009: 19). Nevertheless, demographic changes and the economic growth in recent years slightly relaxed the situation to this group of applicants (Seibert/Kleinert 2009: 2). The effects of the current economic crisis on the market of vocational education cannot be estimated yet.

Analysing the qualification structure of the last decades, a university degree or a vocational qualification achieved in the 'dual system' has always offered the best chances for a vocational career. This can be equally expected for the forthcoming

³ Calculation on data of KMK 2007: 63: The peak in graduates from general schools was predicted for the year 2007 (975,000). In 2020 there will be about 781,000 school leavers.

years. For persons, however, who have not obtained a vocational qualification, no relief between supply and demand on the labour market can be predicted for the future (Bott et al. 2008: 12). Given this causal structure, the basis for an entry into the labour market is prevocational literacy. Thus, it must be of political and economic interest to provide our children with a school education that prepares them appropriately for vocational learning.

In contrast to this, the share in pupils leaving school on a low level of proficiency varies along with the researcher and focus of the study. While Allmendinger/Wimbauer (2006: 2) count around ten percent of the school leavers who do not obtain a formal degree, others found functional disabilities in maths and the German language with up to 23 percent of the school leavers every year (Eberhardt 2006: 29; Stanat et al. 2002: 9).

Any action concerning demographic processes is based on long-term considerations, e.g. the increase of the share of women in the labour market, the remodelling of immigration laws or the stipulation of an increase of the birth rate. Prevocational literacy as such cannot directly be enhanced by measures carried out at the macro level. Potential short-term changes concerning the improvement of prevocational literacy require an examination of possible qualitative influences. Nevertheless, demographic data allow statements on the necessity of reducing the number of young people lacking in prevocational literacy.

Qualitative factors: family, school, peer group

The micro level of an adolescent generally consists of his familial and school relations as well as the contact to the peer group in "a given face-to-face setting" (Bronfenbrenner 1994: 39). The adolescent possesses certain cognitive abilities, psychomotor capacities and personal qualities. Human development naturally strives for perfection, but there are limits inherent to the individual. The family as a first instance of socialisation provides the basis for all further efforts a child ventures. Hence, not only the ethnic or social background of a family has an impact on a young person's progress but also the parents' support to the development of the need for achievement (McClelland 1965). Teachers are another influencing factor on the micro level. Their communication with the individual may activate or spoil learning processes. Relevant issues are the leadership style of the teacher and his or her personal qualities. Face-to-face interaction with the peer group proves its critical relevance whenever it becomes 'bad company'.

The meso level on the other hand includes the interactions between family and school, and between school and peer group. Schools and families both have the right and the duty of educating children. Consequently, tensions between these institutions arise. The parents pursue the best development for their own child whereas the teacher has to take care of many children from different backgrounds and prior knowledge (Frießecke 1987: 86 f). Only if both institutions fulfil their obligations, a solid basis can be established for the achievement of prevocational literacy. Furthermore, possibilities of teaching and instruction have to be elaborated with regard to actions of vocational orientation. Those actions have to be matched with a particular peer group.

Therefore, analyses of target groups are essential. A diagnosis cannot fully represent the degree of prevocational literacy if an analysis of the qualitative factors is missing.

Diagnosis of prevocational literacy

Measuring prevocational literacy in Germany is supposed to be carried out using the catalogue of criteria as established by a group of experts from economy, science, politics and schools under the auspices of the Federal Agency of Employment. The results were published in 2006. The catalogue of criteria indicates the society's expectations of school graduates, and it depicts who will be able to start and probably finish vocational education in the 'dual system'. It is a compilation of characteristics that decide over official recognition of prevocational (il)literacy.

The objective of the catalogue of criteria is "to provide every youth willing and able to start vocational education with a place within the 'dual system'" (ibid: 6). According to this, 'prevocational literacy' defines that a person should possess certain characteristics that allow him or her to start any vocational education. Requirements regarding specific vocations are not considered. Prevocational literacy is to be understood as a dynamic construct. That means a lack of prevocational literacy may be compensated after compulsory schooling and may be subject to further education (ibid: 13f).

There is only little information on the method of generating the criteria of prevocational literacy. Scientific findings in psychology and education as well as existing standards in companies, and the national educational standards served as a basis (ibid: 17). Five diagnostic categories have been defined: (1) basic school knowledge, (2) psychological characteristics, (3) physical characteristics, (4) psychological traits in working habits and personality, and (5) adolescent vocational maturity. These categories are further subdivided. External factors are not considered.

The catalogue of criteria is basically designed as manual for field research. Each criterion is listed separately including a description, indicators, diagnostic methods, and possible questions for the interviewer. But still they lack functionality: The set of answers of each candidate requires high interpretation skills, in particular as to causal structures. Individual results are incomparable.

Finally, the catalogue has not been evaluated by now. An evaluation should provide further evidence on causal structures reflecting the different micro, meso and macro system interdependencies. All in all, the aim lies in the reduction of both individual failure and labour market requirements. The solution of this problem apparently challenges educational action.

Towards new grounds

The methodology of measuring prevocational literacy is only at its threshold. The catalogue of criteria is a first step, but its functionality apparently needs further improvement. At the moment large numbers of model projects are implemented all over Germany. Some of them start as vocational orientation during general schooling and some occur within the frame of an intermediate system of preparation at vocational school.

Given the complexity of the problem – it touches all system levels of the ecology of a young person on the way to the labour market - this improvement is hardly to be expected solely from an improvement of measurement, e.g. psychometrics.

It apparently is an eminent problem of teaching and learning – a teaching and learning that needs to be designed for the teaching of different systemic domains: The applicant has to learn about his or her capacities and their improvement, the enterprises have to learn about the possibilities of the young and the enhancement of vocational literacy 'on the job', the parents have to become more aware about their

early role in prevocational education, and last but perhaps not least the schools have to take their responsibilities in the preparation of young people for life ... "The request for prevocational literacy is usually addressed to four groups: adolescents, their parents, general schools, and the economy" (Eberhardt 2006: 60).

References

- Allmendinger, J., Wimbauer, Ch. (2006) Deutschland – Eine Klassengesellschaft?, in: ZEIT Wissen 04/2006, [www document] URL: http://www.zeit.de/zeit-wissen/2006/06/Essay_Allmendinger.xml (19.06.2009).
- Bott, P., Helmrich, R., Schade, H.-J. (2008) Arbeitsmarktprognose – Trends, Möglichkeiten und Grenzen, in: BIBB (Hg.) Berufsbildung in Wissenschaft und Praxis 37 (2008) 3, pp.9-13.
- Bronfenbrenner, U. (1994) Ecological Models of Human Development, in: International Encyclopedia of Education, Vol. 3, 2nd Ed. Oxford: Elsevier. Reprinted in Gauvain, M. & Cole, M. (Eds.), Readings on the development of children, 2nd Ed. (1993, pp.37-43). New York: Freeman, [pdf document] URL: <http://www.psy.cmu.edu/~siegler/35bronfenbrenner94.pdf> (19.06.2009).
- BA (Bundesagentur für Arbeit (Ed.); 2006) Kriterienkatalog zur Ausbildungsreife, Nürnberg.
- BMBF (Bundesministerium für Bildung und Forschung; 2009) Berufsbildungsbericht 2008, Bonn, [pdf document] URL: http://www.bmbf.de/pub/Endfassung_fuer_Internet_BBB_2009.pdf (19.06.2009).
- BMBF (Bundesministerium für Bildung und Forschung; 2008) Berufsbildungsbericht 2007, Bonn.
- BMBF (Bundesministerium für Bildung und Forschung; 2007) Berufsbildungsbericht 2006, Bonn.
- Eberhardt, Verena (2006) Das Konzept der Ausbildungsreife – ein ungeklärtes Konstrukt im Spannungsfeld unterschiedlicher Interessen, Ergebnisse aus dem BIBB, Bonn: Bundesinstitut für Berufsbildung.
- Friesecke, G. (1987) Erziehungsverantwortung der Eltern und Bildungsauftrag der Schule – Zum Ziel des sinnvollen Einvernehmens zwischen Eltern und Schule, in: Heck, B. (ed.) Verantwortung für die Jugend: Erziehung im demokratischen Staat, Mainz: v. Hase und Koehler, pp. 81-96.
- Fuchs, J. (2005) Tickt sie, die demografische Zeitbombe? Aktuelle Daten und Fakten zu den Auswirkungen des demografischen Wandels auf Arbeitskräfteangebot und –nachfrage, in: Arbeit, Zeitschrift für Arbeitsforschung, Arbeitszeitgestaltung und Arbeitspolitik (2005) 4, pp. 261-274.
- Grundig, B., Pohl, C. (2004) Die Auswirkungen des demografischen Wandels auf den Arbeitsmarkt in Sachsen – Analysen und Gegenstrategien, in: ifo Dresden berichtet (2004) 3, pp. 5-17.
- KMK (Kultusministerkonferenz; 2007) Vorausberechnung der Schüler- und Absolventenzahlen 2005-2020, Reihe Statistische Veröffentlichungen der Kultusministerkonferenz Nr. 182, Bonn, [pdf document] URL: http://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2007/2007_05_01-Vorausberechnung-Schueler-Absolventen-05-2020.pdf (21.06.09).
- David C. McClelland (1965) Achievement Motivation Can Be Developed, Harvard Business Review 43 (1965), pp. 6-24.
- Seibert, H., Kleinert, C. (2009) Duale Berufsausbildung: Ungelöste Probleme trotz Entspannung, in: IAB-Kurzbericht, 10/2009, Bielefeld: W. Bertelsmann.
- Stanat, P., Artelt, C., Baumert, J., Klieme, E., Neubrand, M., Prenzel, M., Schiefele, W., Schneider, P., Schümer, G., Tillmann, K.-J., Weiß, M. (2002) PISA 2000: Die Studie im Überblick – Grundlagen, Methoden und Ergebnisse, Berlin: Max-Planck-Institut für Bildungsforschung, [pdf document] URL: http://www.mpib-berlin.mpg.de/Pisa/PISA_im_Ueberblick.pdf (25.06.09).

The Role of Internships at German Vocational Schools: The Example of the 'Berufsgrundbildungsjahr'

Christian Schmidt

*Research Assistant, Institut für Allgemeine Pädagogik und Berufspädagogik,
Technische Universität Darmstadt, Alexanderstr. 6, 64283 Darmstadt*

Summary: Less qualified young people in Germany face huge problems passing into formal vocational education. An increasing amount of youths therefore end up in courses that compensate lacks in skills and education and prepare for further vocational training. In these courses internships are used as structural measure to enhance the transition into regular vocational training. Results from an evaluation of one of these courses named *Berufsgrundbildungsjahr* (basic vocational training year), show that even if there is a slightly positive effect of internships, the main problem of lacking opportunities in the regular vocational training system leads to low rates of transitions from these courses into vocational training.

Keywords: VET-preparation, Internships, *Berufsgrundbildungsjahr*

Introduction

National vocational training systems are, among other criteria, evaluated by their ability to enable the transition from general schooling to vocational education and afterwards occupation. VET-systems therewith enable social integration of youths in a crucial moment of their life course (cf. Rauner 2006: 139). The possibilities of successfully managing biographical transitions depend heavily on the institutional setting which defines the chances and risks of such transitions (cf. Solga 2009: 6). In this context the German system of vocational training has been generally seen as an institution which provides "specific and general skills which facilitate a smooth transition from school to work" (Pollmann-Schult & Mayer 2004: 73).

Actual analyses of the German VET-system show instead that there are huge problems for less-educated youths concerning these kinds of transitions (Konsortium Bildungsberichterstattung 2008: 158). In Germany an increasing amount of young people, instead of realising directly the transition into an vocational apprenticeship, end up in courses on German vocational schools who do not convey a certified vocational training. The goals of these courses are to compensate lacks in skills and education which prevent young people to enrol in vocational apprenticeship. The rate of those who successfully realise the transition from these courses into proper VET-training is however significantly low (Konsortium Bildungsberichterstattung 2008: 167).

Against the background of this situation practical periods and internships are discussed as a possibility to enhance transition into vocational training. The idea is that practical periods enable employers to "test out" young people in the authentic labour environment and afterwards offer a proper apprenticeship. On the other hand young people have the possibility to get to know working processes and learn concrete skills despite the institutionally certified qualifications of general schooling. Critics point out that internships enable employers to employ young people in

precarious conditions (cf. Rützel 2003: 29), because they are employed as labour force without or poor monetary retribution.

Methods and research design

The *Berufsgrundbildungsjahr*, which is one of the courses at German vocational schools for young people who did not manage to pass into vocational training, has been evaluated by a group of researchers from the *Institut für Allgemeine Pädagogik und Berufspädagogik* at the *Technische Universität Darmstadt*. The aim of these courses is to give a basic vocational education in vocational schools. If students pass this course successfully, the following vocation education can be reduced about one year.

The evaluation took place from April 2006 until December 2007 and was limited to the German federal state of Hesse. It was designed as a comprehensive survey in which 149 teachers (68% of all teachers) and 1960 students (48% of all students) have been interviewed by standardized questionnaires.

In the *Berufsgrundbildungsjahr* there have been classes with internships in companies included in the didactical process and those without internships or practical training periods. Internships have been implemented in most of the classes for a longer period of time. Therefore the data from the evaluation allow a comparison of these two types of classes.

On behalf of the positive effects attributed to practical periods we expected that internships would have a positive effect on the transition into dual vocational training. Furthermore we expected students in classes with internships to be more motivated, more aligned to vocational education and likely to show a more supportive behavior in class. Therefore we asked teachers about chances of their students to pass into regular vocational training after the course. Despite of that, we asked the students whether they follow the course to learn basic vocational qualification or just for the reason of not being unemployed. We wanted to know if the students wanted to pass into regular vocational training afterward or if they intended to enter directly in the labour market or planned to go back to school. Finally we wanted to know about the behavior in class and the number of students dropping out before the end of the course.

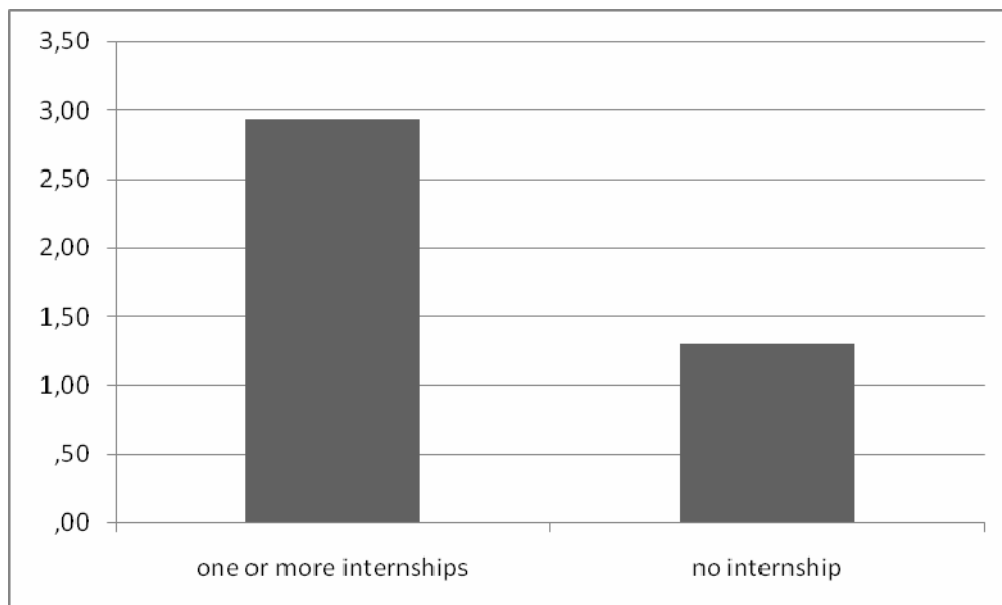
To measure differences between classes with and without internships on behalf of these criteria and their significance we used an analysis of variance (ANOVA) or chi-square-test.

Results

The data obtained from the evaluation showed that the allocation of students in the *Berufsgrundbildungsjahr* is homogenous as far as former qualifications are concerned. About 80% of the students hold a degree of the lowest secondary school type in German school system (*Hauptschulabschluss*). The majority of the students were young men (58%) while 42% were young women. The average age was about 17 years. In the *Berufsgrundbildungsjahr* an average of 77% of the classes offered an organized internship as part of the didactical program. The internships had a median duration of 3,7 weeks and 67% were embedded in an occupational area corresponding to the training in the *Berufsgrundbildungsjahr*.

The primary result of the evaluation was the fact that transitions from the *Berufsgrundbildungsjahr* into regular vocational training were extremely rare. Only 26% of all students managed to enroll in such training. In this context teachers had been asked, how many students were able to firm a contract of vocational training with an apprenticeship company during the year. Altogether only 2,7 students per

class (17% of all students) did succeed in firming such a contract. The comparison of classes with and without internship showed, that in classes without internships the number of students holding a contract was significantly lower. Here only 1,3 student per class were successful while in classes with internship we found 2,9 students with contracts.



With internship n=107 without internship n=17; significant at 0,016

Figure 1: Students with contracts in classes with and without

The other notable finding of the comparison of classes was that the existence of internships showed no positive effect on motivations entering the course, social skills, punctuality, neither on the student's plans for the time after the course nor concerning the drop-out-quotes. Contrarily to our assumption that internships could positively affect social skills it turned out, that students showed more sense of responsibility in classes without internships than in those with internships (always based on the estimation of their teachers).

	Sig. Difference between classes with and without internship
percentage of youth who successfully finish the course	no
behaviour in class	yes, more responsible in classes without internship
plans for time afterwards	no
Drop-outs	no

Table 1: Differences in motivation, drop-outs and social skills

Also contrarily to our assumptions, regarding the students there was not a significantly higher commitment to vocational training in classes with internships.

Discussion

The delusionary results of the evaluation show that joining the Berufsgrundbildungsjahr does not enhance the possibility to pass into regular

vocational training. Even though there is a positive effect of internships regarding these possibilities, the overall chances for the young people enrolled in these courses remain dim. Interestingly there can be shown a slightly positive effect of internships in the sense that companies offer youths in internships contracts for regular vocational training. On the other hand these internships seem to have no effect on motivations and social skills of the young people.

The questions remain which assumptions can be drawn from the results of this particular evaluation to vocational education in general. We come to the conclusion that internships may have positive effects on passing into vocational training, especially for less qualified young people. On the other hand remains the constitutive problem that Germany with its marked-regulated system of vocational training shows a structural shortage of possibilities for lesser qualified young people to get access to vocational training. It seems that extensive shares of practical periods in vocational training preparation courses are not able to solve this problem because the amount of contracts offered by apprenticing companies cannot be adequately enhanced by that measure.

On the background of a knowledge-driven society in which formal school leaving certificates and certified vocational qualifications decide heavily on lifelong occupational and social opportunities, sustainable solutions for the vocational training of less educated youths have to be implemented and developed further if integration of a big share of young people should remain a goal of vocational education. A solution has to be found to what Solga calls “the increased institutionalized transition risks and systemic dead-ends faced by less-educated youths” (Solga 2004: 99).

References

- Bohlinger, S. (2008): Übergänge benachteiligter Jugendlicher im internationalen Vergleich. In: Münk, D. & Rützel, J. & Schmidt, C.: Labyrinth Übergangssystem, Bonn, 253-268.
- Konsortium Bildungsberichterstattung (2008): Bildung in Deutschland 2008, Berlin.
- Pollmann-Schult, M. & Mayer, K.-U. (2004): Returns to skills: Vocational training in Germany 1935-2000. In: *Yale Journal of Sociology*, 4, 73-97.
- Rauner, F. (2006): Berufliche Bildung – die europäische Perspektive. In: Grollmann, P. & Spöttl, G. & Rauner, F.: *Europäisierung Beruflicher Bildung – eine Gestaltungsaufgabe*. Hamburg, 127-153.
- Rützel, J. (2003): Das Praktikum. Eine Brücke zur Selbstständigkeit. In: *Berufsbildung, Zeitschrift für Praxis und Theorie in Betrieb und Schule*, 82, 29-34.
- Solga, H. (2009): Biographische Sollbruchstellen. In: *WZB Mitteilungen*, 123, 6-8.
- Solga, H. (2004): Increasing risks of stigmatisation: Changes in school-to-work transitions of less-educated West Germans. In: *Yale Journal of Sociology*, 4, 99-128.

Demand for Career Guidance in Low- and Middle- Income Countries: An Indicator for the Growing Need of More Effective Transition Support Services

Helmut Zelloth

*European Training Foundation ETF, Viale Settimio Severo, 65
10133 Turin / Italy*

Summary: The rising demand for career guidance in low- and middle-income countries neighbouring to the European Union is shaped by various push and pull factors. Among those are current labour market developments, education and training reforms and policy-induced drivers. In parallel, contextual specificities, for example a large informal economy, partly tend to undermine demand for career guidance. At present service provision is very limited and in order to respond to demand, the most frequent delivery model adopted is the 'centre' model, whereas the 'curriculum model' or 'virtual' and 'web-based approaches' remain largely untapped. Widening the access to career guidance and shifting the mode of delivery towards the new career guidance paradigm (career management skills, self-help approaches, work-'tasting' and -experience) would likely better contribute to successful school-to-work transitions.

Keywords: career guidance, school-to-work transition

State-of-the-art definition and distinction from other concepts

The paper relies on the international definition of career guidance as covering services (career information, guidance and counselling) intended to assist people of any age and at any point in their lives, to make education, training and occupational choices and to manage their careers (OECD 2004, Council of the European Union 2004). For the sake of analysis it is important to distinguish career guidance from other related concepts and processes, which are different although partly overlapping, such as (a) induction (supporting entrants in managing their transition into a new learning or work environment); (b) promotion (attempting to persuade individuals to make particular choices at the expense of others, for example vocational education and apprenticeship); (c) selection (making decisions about individuals); (d) placement (matching individuals to specific jobs). While some of these concepts are primarily designed to serve the interests of opportunity providers (education and training institutions and employers), career guidance by contrast is addressed specifically to the interests of individuals within their social context (Sultana and Watts 2007). It is concerned with helping individuals to choose between the full range of available opportunities, in relation to optimally utilising their abilities and addressing their interests and values, and thereby leading to greater fulfilment and satisfaction.

Methods and research design

The paper is based on original research by the author and covers a sample of nine low- and middle-income countries neighbouring to the European Union. Five

countries (Egypt, Georgia, Ukraine, Montenegro, former Yugoslav Republic of Macedonia) were analysed in more depth through a questionnaire developed and administered by the author in field visits to these countries, interviewing policymakers and practitioners in career guidance from both the education and employment sectors. The comparative analysis includes four more countries (Turkey, Albania, Jordan, Russia) based on information available from existing literature and research. The methodology also utilised and innovated some knowledge-sharing and –building tools with experts from the European Training Foundation (ETF).

Demand factors and barriers for career guidance

Empirical evidence of demand

The issue of demand for career guidance services in low- and middle-income countries is not well researched and has been somewhat neglected or underrepresented in similar and previous studies. In the countries reviewed the level of needs is being examined rather occasionally and randomly. For example in Montenegro, a demand-focused survey was undertaken for the first time in 2007 by the newly established Centre for Career Information and Professional Counselling (CIPS 2007). It covered a sample of 800 primary school students and revealed the strong role and influence of parents but it also showed that around one third of primary education pupils in the last grade were still undecided on their educational progression, with around 30% of students mentioning a lack of information. In Turkey, a recent survey on methods for participatory labour market assessment revealed that one of the most important challenges identified by young people in the transition from school-to-work was the lack of information about job availability (19% of respondents) and the lack of jobs (25%). Inadequate or irrelevant school preparation was cited by 43% of respondents as the most serious challenge (World Bank 2007). In Russia, for the central region, research was conducted into the kind of help students in Grades 9 and 10 expected to receive from the school psychologist; orientation (information on educational institutions, trades, the labour market situation, etc.) was the issue ranked the highest among students, followed by psychological conflicts (Zabrodin 2003).

Push and pull factors from the economy and labour market developments

Based on the inner logic and development pattern of the economy and labour market systems in the countries referred to in the analysis, a number of push and pull factors have been identified and analysed that potentially function as drivers of demand for career guidance.

1. There seems to be a direct link between dynamic economic growth and development, on the one hand, and, on the other hand, policy agendas in favour of career guidance.
2. All the countries reviewed showed significant mismatches between labour demand and supply as one of the factors responsible for high unemployment rates.
3. Emphasis on preventive and individual approaches in labour market policy seems to fuel further demand for career guidance services.

Demand arising from education and training reforms and policy-induced factors

In nearly all countries education and training reforms have been launched or are ongoing, however, career guidance provision does not yet respond sufficiently or even fails to keep pace with wider reform developments. At present, service provision in low- and middle-income countries neighbouring to the EU often remains very limited and is hardly available. On the other hand, education policies are emerging that seek to widen choices and to respond to varying needs throughout life, which in principle could trigger demand for career guidance services.

1. Modernisation of primary education through a revised curriculum philosophy and 'portioning' through two- or three-tier cycles can substantially stimulate demand for career guidance and career education in the education sector;
2. Further demand and windows of opportunities for career guidance are opened up through reforms and developments in education and training aimed at more flexibility, increased diversity and more complexity of learning opportunities.
3. Preventing wrong choices and reducing or eliminating the number of dropouts at various stages of the education system with a view to minimising waste or inappropriate use of educational resources, is one of the main contributions of career guidance in general.
4. The gradually increasing involvement in EU pre-accession processes by candidate countries, such as Turkey, the former Yugoslav Republic of Macedonia, or potential candidate countries (eg Montenegro and Albania), functions to a certain extent as a direct driver of policy development in employment and education with the likelihood of the EU Council Resolutions on lifelong guidance being taken into account sooner rather than later.

Barriers to meeting the demand for career guidance

In parallel to the manifold drivers of demand for career guidance in low- and middle-income countries, a number of specific features tend to undermine the potential demand for career guidance services. Such factors and barriers for guidance arise from different stages of economic development (is career guidance 'affordable' or a 'luxury'?), the nature of the labour markets, differences in education and training systems (traditional academic orientation) and socio-cultural specificities. When designing career guidance policies and practices, in low- and middle-income countries such features and contextual specificities need to be considered.

Career guidance provision and delivery models

Service provision still remains very limited and often fragmented in most of the countries analysed although career guidance is somewhat better developed in larger countries such as Turkey, Russia and Ukraine. In the attempt, to meeting the rising demand for career guidance services, in particular for young people in transition phases, the low- and middle-income countries analysed have adopted different approaches and delivery models. Four distinctive models of career guidance provision were identified which can be found either in educational institutions, in public employment services or cross-sector settings (Zelloth 2009). The most frequent delivery model in EU neighbouring countries is the 'centre' model which is often provided by a mix of semi-specialists (or para-professionals) and specialists.

The centre model

In a number of countries this model is being applied in both educational and labour market settings. Hereby, the notion of a 'centre' can vary considerably, from an almost 'virtual centre' to a 'one-man-show' or up to a centre in a classical understanding, staffed with several professionals. For example in the former Yugoslav Republic of Macedonia, 'career centres' have been introduced in all VET schools between 2006 and 2007, which are not staffed at all, but provide 'room' for guidance and are managed cost-efficiently by the student organisation and a teacher or school psychologist who voluntarily performs a certain co-ordination role.

The curriculum model

In most countries there is little if any space dedicated in school curricula to some kind of career education. In Egyptian basic education, a subject called practical fields (two hours per week) is part of the education plan and compulsory from Grades 7 to 9. In theory it aims at giving students an insight into fields outside the academic environment and to help them assess their own interest and capabilities and learn about possible work opportunities. However, a shortage of qualified teachers for this subject and the fact that many schools work in two daily shifts usually results in these teaching hours being used for other purposes and academic classes (Badawi 2006).

The virtual model

A web-based or virtual model is hardly used in the countries analysed although the potential for self-help and cost-efficient approaches in career guidance delivery seems to be huge. In particular career information could be closely associated with such a model. Only Turkey has started to develop and pilot (2009) a national and comprehensive web-based career information system which aims to serve all the target groups with a lifelong guidance perspective (young, adults, employed, unemployed, disadvantaged groups). Apart from databases on educational and training programmes a standard occupational outlook will be supporting the labour market information. Moreover, the system is designed to have a self assessment part, with web-based questionnaires on abilities, interests and occupational values to help different target groups with self-exploration.

Conclusions and pointers on career guidance

Better articulation of demand and evidence of outcomes

The demand for career guidance in low- and middle-income countries seems to be huge according to the various push and pull factors. Despite several contextual specificities that act as barriers to career guidance development, the pro-demand factors appear to prevail and in nearly all countries analysed there are policy beliefs in place that career guidance can be useful and effective in contributing to wider educational and labour market goals. However, the demand for such services needs to be better articulated and evidence on the outcomes of provision improved. One way to address this issue could be through building up an evidence base and fostering research on career guidance, preferably introducing also a longitudinal dimension.

Wider access to career guidance services and changing the mode of delivery

Despite the different stages of development, all countries analysed seem to face the dual challenge of providing wider access to guidance services and at the same time changing the mode of delivery, both in order to make career guidance more effective

and to better meeting the demand of young people for such transition support services. In the context of limited resources often experienced by low- and middle-income countries this would require more resource efficient approaches, such as enhanced and comprehensive (web-based) career information. A gradual shift from the psychological model ('testing and telling') to a pedagogical model (self-exploration, career management skills, work-'tasting') would bring current provision closer to the new paradigm of career guidance which has evolved in the last decade.

Apprenticeship and career guidance

Both widening the access to career guidance services and aligning the modality of delivery with the new career guidance paradigm might also positively correlate and impact - despite the impartiality of career guidance - on choosing vocational education or apprenticeship as career pathways.

References

- Akkök, Fusun (2006), Career Guidance in the MEDA Region: Country Report on Turkey, European Training Foundation, Turin.
- Badawi, Aboubakr (2006), Career Guidance in the MEDA Region: Country Report on Egypt, European Training Foundation, Turin.
- Career Industry Council of Australia (2007): The public benefits of career development services. A position paper, Career Industry Council of Australia.
- CIPS Centre for Information and Professional Counselling (2007), Survey on enrolment in high schools in Montenegro, Montenegro National Employment Agency, Podgorica.
- ETF (2005), Country Analysis Georgia, European Training Foundation, Turin.
- European Union Council (2004, 2008), Resolutions of the Council and of the representatives of the Member States meeting within the Council on 'Strengthening policies, systems and practices in the field of guidance throughout life' and on 'Better integrating lifelong Guidance into Lifelong Learning', Council of the EU, Brussels.
- Hansen, E. (2006), Career Guidance: A Resource Handbook for Low- and Middle Income Countries, International Labour Organisation (ILO), Geneva.
- Jarvis, Phillip S. (2003), Career Information + Career Management Skills. Keys to a Great Career, and a Great Life, National Life/Work Centre, Canada.
- OECD (2004), Career Guidance and Public Policy: Bridging the Gap, Organisation for Economic Cooperation and Development, Paris.
- Sultana, Ronald, Watts, A.G. (2007), Career Guidance in the Mediterranean Region, Europea Training Foundation, Turin.
- Sweet, Richard (2007), Career Guidance in the Western Balkan Region, Working document, European Training Foundation, Turin.
- Watts, A.G., Fretwell, David, Public policies for career development. Case studies and Emerging Issues for Designing Career Information and Guidance Systems in Developing and Transition Economies. World Bank, Washington D.C., 2004.
- World Bank (2007): Investing in Turkey's Next Generation: The School-to-Work Transition and Turkey's Development, Draft report prepared by the World Bank, Washington D.C.
- Zabrodin, J. (2003): Country report Russia. A Framework for the Design of Career Information, Guidance and Counselling Services in Developing and Transition Economies. World Bank working document, Moscow, Washington D.C.
- Zelloth Helmut, Gligorijevic Dragana, Sultana Ronald, 'Career Guidance Policies in Acceding and Candidate Countries', Journal "Vocational Training: Research and Realities", 2003/7, Centre for Vocational Education and Research, Vytautas Magnus University, Lithuania, 2003.
- Zelloth Helmut (2009): In demand: Career guidance in EU neighbouring countries. ETF, Turin.

Work-based Learning in the Chinese VET System

Xu Han

Professor and Director of the Institute of Vocational und Technical Education, Shenyang Normal University, Huanghe Bei Da Jie 253, 110034, Shenyang/China

Summary: In the programme of reforms considering the vocational education in China, the didactic principle to combine work and study (50 % work, 50% study) is of high significance. This article examines how this concept of work-based learning in vocational education is transferred into praxis.

Keywords: Reform programme, work-based learning in China

Introduction

With the enactment of the educational reform in October 2005, the Chinese government revised a negative development, which between 1996 and 2002 led to a bisection of resources in the field of vocational education (figure 1)

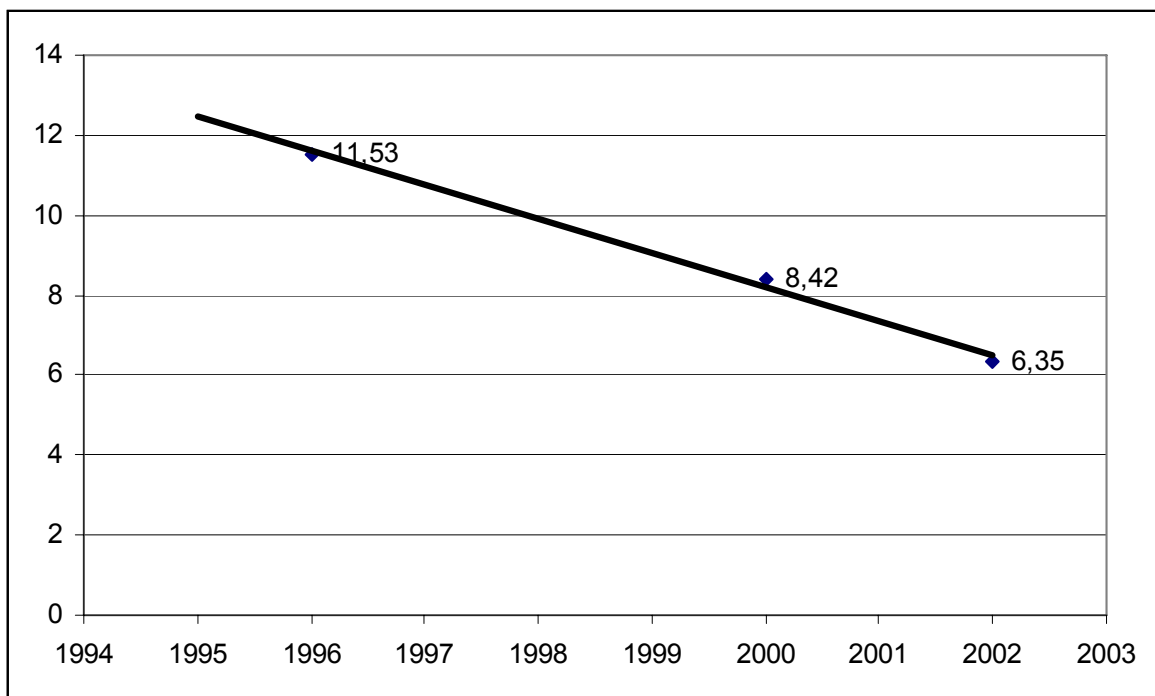


Figure 1: Investments into VET 1995-2002 (Yang Jintu 2005)

The main focus of the vocational educational reform is a better embedding of work-based learning in China's VET System. The vocational educational reform is supported by a nationwide enhancement of the Chinese Curriculum Reform in TVET. This paper will analyse by which means and strategies these objectives can be reached.

Methods and research design

The analysis is based on the evaluation of reform programmes, which were presented to the Chinese government as well as the further analysis of relevant

literature in this field. Furthermore, the analysis is complemented by own research experiences in field of implementing pilot projects and experiments in the Chinese province of Liaoning.

Findings

Looking at the embedding of the didactic principle of a work-process oriented vocational education in the Chinese system, three trends can be distinguished.

1. Alternating duality as a legal foundation in vocational education in secondary schools

The Chinese model of an alternating dual VET system is characterised by a two year (theoretical) learning programme in vocational schools which is followed by one year of on-the-job-training. The educational responsibility for the adjustment (on-the-job-training) to the aspired profession lies at the vocational schools. Consequently, tuition fees have to be paid continuously (also in the 3rd year of vocational training) to the schools, respectively to the public institutions. This educational model aims at providing apprentices with professional skills and competence.

The process of implementing the concept of the alternate dual educational training into practice is characterised by the following difficulties.

- Until now, vocational education lacks examination regulations as well as a proper definition of job descriptions, which are necessary for the implementation of an academic curriculum.
- As a consequence, `learning by doing` is subordinate to the managerial or economic interests in cheap labour that impedes a more in-depth, systematic vocational training.
- Until now, both, teachers in vocational school, as well as the responsible training supervisors in the companies are inadequately prepared for these tasks

Conclusion

Taking everything in consideration, the prevailing constraints in the Chinese VET system, vocational education in China is still less attractive and accounts for its social stigmatisation.

As a strategy of reform, it would be necessary to qualify teachers and trainers in order to implement a systematic and well structured vocational training programme on the basis of a stringent concept of vocational curriculum design. In order to implement such a concept, the co-operation between vocational schools and the training companies is necessary.

The reform has to include the learning potentials in the workplace curriculum. This requires a domain specific qualification research as a basis for the development of modern integrative core professions. Interesting ideas/ concepts for several professions have been developed by the Central Institute for Vocational Education. Furthermore, it is necessary to implement the concept of learning during the work process.

This concept ensures that apprentices are involved in the work process as well as in the process of organisational development. Vocational teachers are responsible to guide this learning process and to create an environment that supports trainees to reflect and communicate working conditions and experiences.

2. *Establishing vocational training centres*

The national reform programme provides large resources for the establishment of vocational training centres in order to build up work-based learning as a part of vocational education.

Usually, vocational training centres are allocated to vocational schools. They are administered by local authorities, companies or vocational schools. Vocational training centres can be implemented without complicated co-ordination processes as part of state vocational training. The expected disadvantages are:

1. the distance between vocational training and the job market
2. a disentanglement of practical education from work processes and organisational development.
3. a further drawback of companies from their original role in vocational training.

Conclusion

The strategic aim of building up vocational training centres is to reinforce and improve on-the-job-training, while, at the same time, it promotes a considerable drawback of companies from their original responsibility in apprenticeship. Only if vocational training centres are complementary to existing forms of vocational education, they could become an important element in the Chinese TVET reform.

3. *"Production schools" and school-based practice firms*

Chinese companies have a strong profit-oriented way of acting and in times of increasing global competition, this has led to the outsourcing of social and educational functions and responsibilities. This development has also a significant impact on the Chinese public sponsors of vocational and educational schools. Although, in some provinces, especially where infrastructure is good and also heavy industry is settled, there is a huge demand of skilled labour and thus vocational learning tracks. These are mostly integrated in vocational schools. In this context, three reform concepts have emerged:

1. Schools with integrated production areas "production schools"
Usually, companies and vocational schools support the build-up of production areas within schools according to the model of "production school". Here, the approach of vocational education is very similar to the concept of work-based learning but nevertheless cannot completely substitute for it.
2. Practice firms
In order to give insights into the working environment and to strengthen on-the-job-training, vocational training schools set up (artificial) practice firms, where both industrial and office work can be simulated in a realistic manner.
Established vocational disciplines and a good equipment are required, in order to fulfil the conditions of handling realistic official offers. During this simulated work process, teachers take the role of project managers in the sense of company managers. This has the advantage that students get a deeper understanding of the problems related to working environments and work processes. To finally meet the requirements of a systematic integration of work assignments into a vocational curriculum, an integrated work-process oriented didactic is needed.

Conclusion

The establishment of practice firms and “production schools” is the result of initiatives made by vocational schools and their co-operation partners and leads to work - process oriented learning. However, it cannot replace a system of dual VET. The raise of “production schools” also corresponds to the trend of the Chinese economic development, where companies tend to concentrate on their individual core businesses.

Summary and conclusion

The development of the Chinese vocational educational system faces a turning point where it still has to be shown whether Chinese companies are willing to open up to a more effective form of alternating dual VET. The reform and all efforts taken so far do have the potential to lead trainees from novices to expert in their individual vocations, and also to enable them to pursue a further academic career. That way, the attractiveness of vocational education can be considerably increased.

References

- ‘The Ministry of Education’s Opinion on the Trial Regulation of Work-Integrated Learning and Part-Time Job in Vocational Schools.’ The Vocational & Adult Education Department of Ministry of Education (2006) No.4, March, 2006
- Geng Jie. ‘The History and Practice of Work-Integrated Learning of Vocational Education in China.’ *Communication of Vocational Education*. 2007 (3):26-28
- Gui Herong *et al.* ‘The Research and Practice of “Order-Oriented” Vocational Education Mechanism.’ *Vocational and Technological Education*. 2005 (4):34-36
- Xu Han, Berufliche Grundbildung im Spannungsverhältnis von Wissenschafts- und Arbeitsorientierung in Deutschland und China, Shaker Verlag, Aachen
- Bertelsmann Stiftung (Ed.) (2009): Steuerung der beruflichen Bildung im internationalen Vergleich. Gütersloh.
- Yang Jintu (2005): Chinese Education: Lagging behind While Striding Forward – on Educational Environment for developing Vocational education. In: Proceedings of the Shanghai Education Forum. 22-23.06.2005, Shanghai, China. pp. II-12-2 – II-12-12.

Transition without Barriers: Improving and Matching Basic Competencies and Vocational Qualification Needs

Peter Härtel and Michaela Marterer

*Styrian Association for Education and Economic,
Freiheitsplatz 2 / III, 8010 Graz*

Summary: With the main aim to lay an evidence base for target orientated support activities for young people who are close to the interface between initial – compulsory – education and further educational and vocational training pathways, especially persons with low performance in basic qualifications a survey in 338 companies was carried out in Styria / Austria. To recognize the needs and demands of basic qualification achieved in school and needed for specific professions of the apprenticeship training, the survey based on the new developed “educational standards” in the initial education system. The results of the survey were analysed, this was basis to develop a profile for a support measure called “Quali-Coach”, to train with young people individually especially these competencies which are needed for the profession of their choice.

Keywords: Transition, basic competencies, social skills, demands of companies

Introduction

The Austrian VET system is characterised by the considerable importance of IVET, i.e. the VET schools and VET colleges as well as apprenticeship training. On average, some 80 % of young people in their tenth grade sign up to a VET programme. Of these, about 40 % take up an apprenticeship, 15 % attend a VET school, and ca. 27 % a VET college. End of 2008 131.880 young people did their apprenticeship training in 37.983 companies.

The Austrian example of transition processes from initial education to apprenticeship training shows various criteria.

About 16.000 (15 %) young people are leaving compulsory school (after fulfilling the 9th grade) each year without having enough basic competencies in reading, mathematics and mother language and about 20 % of the pupils of 15 / 16 years of age are among the “risk group” of reading and mathematics.

There exists a gap between the number of applicants and available places for apprenticeship training. But there exists also a gap between offered placements and applicants, who fulfil the qualification needs of the companies and the profession, especially concerning to basic competencies in language, mathematics and social skills.

Methods and research design

These facts were the background for a nation wide project within the ESF program to reflect the situation of young people, schools and companies at the points of transition, to analyse the gap between qualification needs of professions and

companies and the performance of applicants, and to develop offers and measures, to close this gap for more successful transition processes

First step

A Survey in companies to recognize the needs and demands of basic qualification, based on the new developed “educational standards” in the initial education system was prepared to carry out in May 2008.

These “educational standards” are in stage of implementation in Austria and were defined for two grades 4th grade and 8th grade with the focus on reading competence comprehension, German as a curricular subject, basics of mathematics and modern language competence.

Second step

A differentiation regarding to the relevant sub-domains of the “educational standards” was carried out for the 5 competence domains chosen for the survey: mother language (German): 6 sub-domains; maths: 10 sub-domains; second language (English): 5 sub-domains, personal and social skills was carried out.

Third step

In collaboration with the Styrian Chamber of Commerce 30 professions were chosen out of about 255 possible professions on the one hand regarding the availability of placements and trends of professions and on the other hand combined with professions in which more than 50 apprentice are trained in Styria. The 5 competence domains and sub-domains were connected to the 30 professions regarding to the needs and demands.

Forth step

338 Styrian companies of different sizes (from SMEs to large concerns) with 2.129 apprentice (647 female, 1.482 male) trained in the mentioned 30 professions participated in the survey in May 2008.

The companies were asked to assess the required competences for a specific profession of their company, to rate the relevance of the competences and to evaluate existing competences of their applicants.

Results

The enormous impact of social and personal competencies is obvious (Fig.1). The difference between required competences and the assessment of existing competences regarding the competence domains is considerable with 30 % - 40 %.

Domain	Requirement %	Existing %	Δ pp
Personal competence	96,3	54,4	41,9
Social skills	95,8	65,0	39,8
German (Mother language)	80,3	41,8	38,5
Mathematics	63,2	21,3	41,9
English	36,0	25,2	10,8

The

Figure 1: Competence domains requirement

The detailed results of competence domains and sub-domains make the gap between the demands and existing competencies visible:

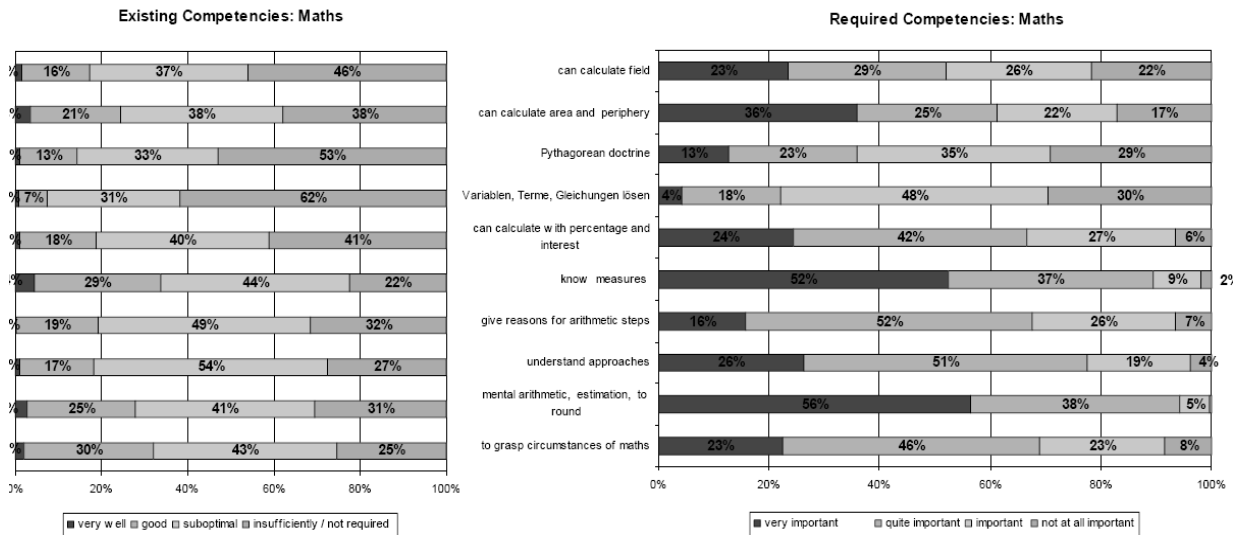


Figure 1: Overview of existing /required competencies: Maths

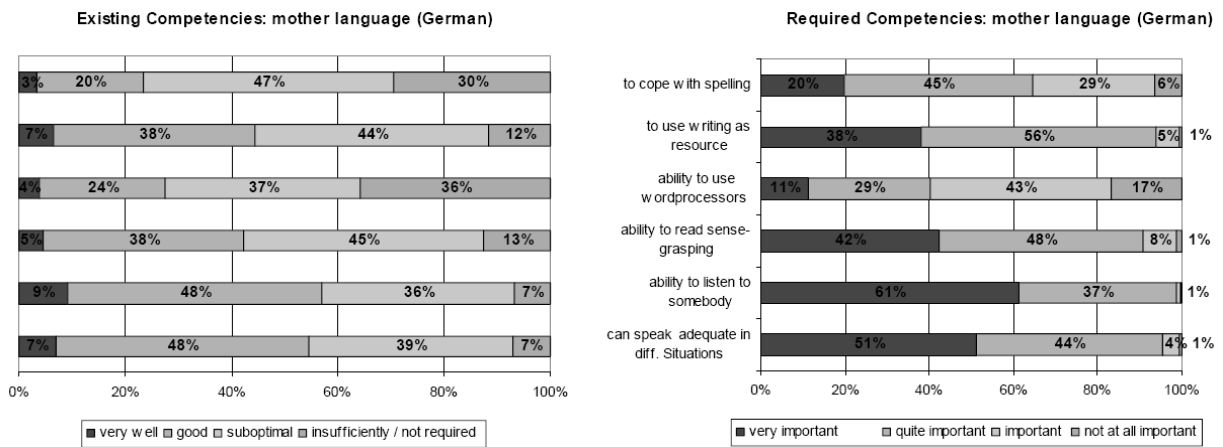


Figure 3: Overview of existing /required competencies: mother language (German)

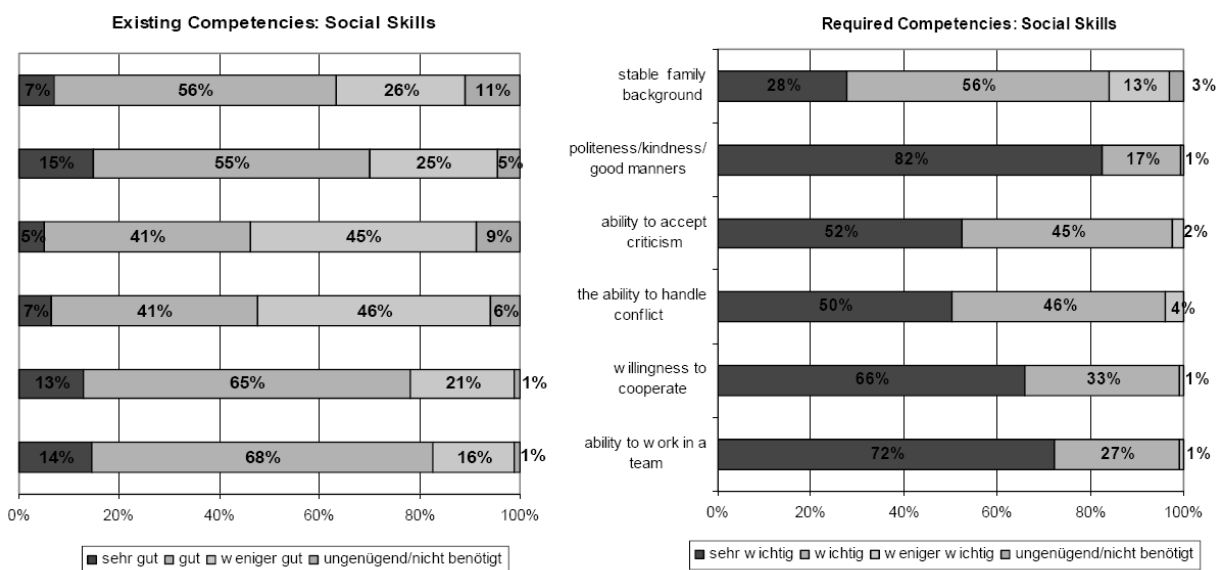


Figure 4: Overview of existing /required competencies: Social Skills

In consideration to development measures and activities to improve preparation and qualification of young people, concerning to their personal orientation and perspective for further vocational training pathways the results of the survey was the basis to develop an profile for a support measure called “Quali-Coach” to train with young people individually especially these competencies which are needed for the profession of their choice – in close cooperation with school and guidance process.

“Quali-Coach” is a person who works close to the school system and is a turning point in the field of basic skills which means that the “Quali-Coach” works in a network with parents, teachers and other people who are important for the development of the competencies of the boys and girls.

Templates based on the results of the survey with the competence domains and sub-domains specified to the 30 professions and occupations support the daily work of the “Quali-Coach”.

<i>Mother language (German)</i>		<i>Mother language (German)</i>	
can speak adequate in diff. situations		ability to use wordprocessors	
ability to listen to somebody		to use writing as resource	
ability to read sense-grasping		to cope with spelling	

	very important
	quiet important
	important

Figure 5: Template for the relevance of the sub-domain mother language for a baker

The first experiences and results of the project activities based on analysis and evidence of the previous survey prove the practicability for the matching of vocational qualification demands and competencies.

Recommendations for further transfer of results and recognitions at national and transnational level

To make visible qualifications needs and demands from companies for initial education teachers as well as students has to be intensified.

To support activities to close the gap between demands and existing competencies targeted to young people as well as to companies and professions, the output orientated standards for improvement of basis qualification concerning the interest and choices of VET has to be implemented and used. The consequences for quality development in previous schooling processes are to intensify quality of improvement of basic qualification regarding the needs and demands in various professions for apprentices as contribution to improvement of VET quality.

References

Basic Information Report Austria, (2005): Year under report: 2004, Federal Ministry of Economics and Labour, Vienna, 117.

Archan, S., Mayr ,T., (2006): Vocational education and training in Austria, Short description, Luxembourg, Cedefop Panorama series; 125, Office for Official Publications of the European Communities, 36.

Sabine Tritscher-Archan and Thomas Mayr (eds.).

Härtel, P. et al.:(2005): Transition to the World of Work, Graz, Krakow.

Härtel, P., Kämmerer, E (2009): Berufsüberleitung an PTS.Graz, Wien.

Höllbacher, M. et al. (2009): Aufnahmekriterien für Lehrlinge. Ergebnisse einer Befragung steirischer Betriebe, Graz..

Lassnigg, L. et.al. (2009): Öffnung von Arbeitsmärkten und Bildungssystemen, Innsbruck.

OECD Briefing Note for Austria (16. June 2009): Creating Effective Teaching and Learning Environments: First results from the OECD Teaching and Learning International Survey TALIS.

Specht, W. (Ed) (2009): Nationaler Bildungsbericht Österreich 2009, Band 1: Das Schulsystem im Spiegel von Daten und Indikatoren, Graz, 128-129.

Tritscher-Archan, S. Mayr ,T., (eds.), (2008) VET Policy Report Austria, Vienna, 16.

Transition from Vocational Education and Training (VET) to Work – Problems and Perspectives for Developing and Transition Countries

Manfred Wallenborn

*European Training Foundation ETF, Viale Settimio Severo, 65
10133 Turin / Italy*

Summary: This paper discusses the role of work based learning and private sector's participation to facilitate the transition from training to work. Advantages and disadvantages of work based learning are presently not sufficiently considered in developing and transition countries. Donors and researchers address mostly public VET structures. This makes cooperation easier, but it neglects an important share of informal and non-formal training activities. The contribution of the private sector as a recognized social partner to a successful transition to work is important for a more effective VET governance and for better pathways to employment.

Keywords: Social partners, transition, developing and transition countries

Partner's VET governance and transition problems

Nearly all countries in Latin America (some in Asia and Africa) developed in the 60-ies nationwide training organizations. They followed a hierarchical governance model, which took into account the responsibilities of the private sector and the trade unions. These organizations were steered by a governing board including the social partners. The institutional setting was accompanied by financial regulations which forced the industry (or certain sectors) to contribute with a levy on the payroll to the VET system.

The globalizing economy fostered a rapid technological change with severe consequences for the labour markets, training delivery modes, work force preparation and transition to work (CEPAL 2008). The above mentioned specific mode of VET governance was exclusively institutionalised on the top level of the organizations but neglected on other levels. Hence these institutions lost on the middle management and teaching level the contact to the world of work with serious consequences for curricula, teacher training, didactical approaches and consequently for the transition to work, because the institutional setting hampered a constant dialogue and cooperation on teaching and middle management level with private sector representatives.

15 years of such an institutional performance led to a questionable quality of supply driven VET programmes. Moreover, institutional development strategies were not used to motivate teaching staff and management to update individual and organizational knowledge. Some countries restructured the system to cope with the new challenges of a dynamic environment, taking into account the relevant contribution of the social partners on several levels.

The reform of such hierarchical governance modes towards multi level driven social partnership is ongoing in many countries. Based on experiences of the past, these initiatives include some essential messages for VET governance: Reforms must rely on institutionalized communication and cooperation channels with the training experts of the private sector. They must be implemented and managed by

organizational units in the VET systems which operate with more degrees of freedom. Finally: 'a mental shift is needed' (ADB 2008) which perceives VET more functional in the context of socio economic development. Less general education but skills and competencies for productivity, employability and economic growth are required. Such changes have positive effects on social inclusion and the cohesion of the societies.

Schools and learning at work – what makes the difference?

Rapidly changing labour markets and the scarce resources in the partner countries led to modest achievements of a public and social demand driven school based VET system. What was considered as an opportunity for less privileged young people converted to a structural obstacle for employability. This is related to weaknesses of public VET in countries, which implemented a mere school based institutional setting, but don't have sufficient resources to operate the system on a well performing level. The available funds are nearly exclusively spent for low teacher salaries.

On the other side, the private sector is interested in functional Know how and practical competences which contribute effectively to the production process. Initial and further training activities can build on this interest. A solid fundament of general education is compulsory, but not sufficient in the world of work. Moreover, the technological and economic influences from the globalized economy require flexibility in terms of duration and contents of VET. This implies to monitor carefully a potential gap between technological change and strategies of Human Capital Development (HCD). Many social actors from the partner countries' private sector are meanwhile aware that more investments in HCD are urgently required, partly in initial VET and partly in adult further training.

Research (ADB 2008; World Bank 2004) stated that private sector organizations are apart from financing VET even committed to cooperate on different levels with public training centres or with the decision makers from the ministries. The public side should be aware that such initiatives for sharing responsibility in VET are not considered as a mere loss of political power, but as a strategic opportunity to co-fund VET with additional resources. Even in developing countries economic activities are hampered by skilled-worker shortages (OECD 2006) which makes the need for VET evident to the private sector.

Moreover, in a globalized economy the perception of training/work based learning is more and more perceived as functional survival strategy of enterprises. But the regional cultural influences and capacities must be realistically considered to set up promising new modes of VET governance. Governance is a social construct, which derives from a culture specific social dialogue, respect and certain levels of trust and not from a mere technical change in management styles. Following this argument, the crucial problem is not that private sector doesn't provide training. The problem is, whether the private sector is formally and systematically organized to assume politically accepted responsibility in new VET approaches.

Conclusions for new forms of VET governance

If the partner countries focus VET reforms in the triangle of growth, employability and productivity, they must as well discuss, how VET systems can be more self steered and auto regulated. Multi level participation of social partners is the best option for VET systems to cope with increasing complexity in technological development and labour markets. Societies and their subsystems (like education, economy etc.) are in

a globalized world too complex, as being efficiently steered by one single driver. Capacity development in VET governance is a precondition for innovative changes. Envisaged VET reforms have three dimensions, considering the resources and private sector involvement:

- a more effective and efficient use of the existing premises of the education and training systems even for lifelong learning
- a new balance between general and vocational education must be identified and training modes must be designed according to recent socio economic developments and country specific economic issues
- promoting and using systematically and additionally investments and efforts of the private sector in HCD, which the public sector is mid- and long-term not able to afford.

Cooperation and communication between social partners is not an individual and voluntary act in VET systems but must be institutionalized in organizational arrangements. There are no universal solutions for this and a monolithic approach to system governance is questionable. But there are some issues and criteria, which should be seriously considered:

Economics of education are very important, but education systems do not exclusively build on economic evidence. Co-operate governance modes operate with a broader scope than economic indicators. The basic argument for social partner driven policies must always be considered: technical progress in many industrial areas makes the restrictions of school based VET evident. Investments and rates of return are seen critically or will be even lost, if the VET systems are not reformed towards private sector's participation.

Private versus public interests: There is evidence from countries with work based learning schemes/dual systems that the private sector has economic interests in training beyond maintaining the human capital stock of the companies. Research carried out in Germany reveals that 18.5% of all companies involved in initial training use it as a substitution strategy for more expansive labour; but 43.75% considers expenditure on training as a suitable investment strategy for the technological challenges of the future (Mohrenweiser et. al. 2008). The rest of approx. 38% is a mixture of both strategies. Conclusions can be drawn for reform in the partner countries: the problem is less that the private sector doesn't provide training. The problem is whether the private sector is organized formally and systematically to assume responsibility in an approach of VET, which counts on private sector involvement. This is an area of future donor activities.

Low cost training versus quality and returns to investment: Research carried out (Wolter et. al. 2007) revealed that dual training on high quality level for apprentices is of course costly, but generates in the Swiss case as well profit. Apprentices are learning, being simultaneously integrated in the production process, with positive side effects on motivation and vocational identity.

Global industrial outsourcing from the developed countries will challenge the partner countries to accept this 'mental shift' (ADB 2008) and implement more work based learning venues as sustainable alternative for outdated VET schools and for an increased production. Policy makers are responsible to reconsider the consequences for innovation and reform, taking into account that 'an in-depth knowledge of modern technology can successfully be acquired through participation in work based learning. This limits the effectiveness of vocational education and class room teaching as an alternative mean of producing a high-skills economy' (Ashton et. al. 1996).

An effective transition to work requires beside reforms in education and training the recognition of the importance of work based learning: 'Reconceptualising the concept of apprenticeship as a social theory of learning along the lines we have described, offers, we would suggest, a basis for turning these demands into practical programmes' (Guile et. al. 1998). The most important advantages and disadvantages should be solved before implementing such new schemes: the significant better pathways of work based learning to employment should be connected to more comprehensive training and education options after such initial VET modes (permeability), taking into account the growing relevance of changing qualifications in a knowledge society.

References

- ADB (Asian Development Bank) (2008): Education and Skills, Strategies for Accelerated Development in Asia and the Pacific, Metro Manila, Philippines.
- Ashton D. et. al. (1996): Education, Training and the Global Economy, Cheltenham.
- CEPAL (Comisión Económica para América Latina de las Naciones Unidas) (2008): Los Mercados de Trabajo, la Protección de los Trabajadores y el Aprendizaje de por Vida en una Economía Global, Santiago de Chile.
- Guile D. et. al. (1998): Apprenticeship as a Conceptual Basis for a Social Theory of Learning, in: Journal of Vocational Education and Training, 50:2, downloaded: <http://dx.doi.org/10.1080/13636829800200044>.
- Mohrenwieser J. et. al. (2008): Apprenticeship Training – What for? Investment in Human Capital or Substitution of Cheap Labour? Leading House Working Paper No. 17, University of Zürich.
- OECD (2006): Policy Framework for Investment, A Review of Good Practices, Paris.
- Wolter S. et. Al. (2007): Lehrlingsausbildung – ökonomisch betrachtet, Zürich.
- World Bank (2004): Skills Development in Sub-Saharan Africa, Washington D.C.

Trainers' Changing Role and Continuing Learning in Different VET Systems: A Comparative Perspective

Simone Kirpal

*Institute Technology and Education, University of Bremen
Am Fallturm 1, 28359 Bremen*

Summary: Intrinsic motivation such as becoming a better trainer or personal development objectives are the most important drivers for trainers to engage in continuing learning and for becoming a trainer in the first place. Not surprisingly, training practitioners' professional development is predominantly based on personal interest and largely relies on self-initiative. However, variations between different trainer types exist, but also between trainers working in different VET systems. For example, trainers working for a public institution tend to have a less positive attitude towards their profession, engage less in continuing learning and demonstrate a considerably lower level of self-initiative than self-employed trainers. On the other hand we find that in countries with deregulated VET systems only half of the trainers have a formal qualification as a trainer (as compared to about 80 per cent in VET systems that are based on dual models of training), but also that trainers invest much more time in continuing learning than their counterparts in the dual system or in the Scandinavian countries.

Keywords: VET practitioners, trainers, professional development, continuing learning

Introduction

The Lisbon strategy underlines that VET teachers and trainers play a key role in strengthening the quality of education and training systems in Europe and enhancing the attractiveness and accessibility of opportunities for lifelong learning. In this framework they have been identified as key target groups that should be supported in their work and competence development in various ways (Commission of the European Communities 2002). However, particularly as concerns the work, basic qualification, continuing professional development and professional identity of VET practitioners hardly any data or information is available at the European level. As a response to this gap, the European Commission and Cedefop recently launched a series of studies and activities that particularly address the situation and professional development of VET teachers and trainers. These included one study on trainers in companies; a qualitative investigation on the changing roles and competences of VET teachers and trainers; and the Network to Support Trainers in Europe funded under the Leonardo Lifelong Learning network strand.

In the context of the EU's agenda for lifelong learning it is expected that the roles and competence requirements of VET practitioners are undergoing significant change. This includes a shift of the role of VET teachers and trainers towards that of a learning counsellor, coach or facilitator of learning processes in which learners pursue more self-directed and independent learning instead of reverting to standard forms of training and teaching. Another challenge VET professionals are confronted with is the diversification of groups of learners that encompass adult learners,

trainees from diverse cultural backgrounds, early school leavers and socially disadvantaged groups, among others. To be able to accommodate the different needs and interests of those groups requires well developed social, relational and communicative skills. Another trend affecting teaching and training practice is the gaining significance of informal and non-formal learning and its assessment in relation to more formal provision of VET. Also the role that networking and collaboration assumes in modern work contexts combines with the enhanced use of Information and Communication Technologies (ICT). All these developments pose new challenges as concerns the work practice and competences of VET professionals.

Methods and research design

The different European initiatives have generated a variety of quantitative and qualitative data to explore teachers' and trainers' roles in modern work contexts and to better prepare and support them for future challenges. The first study on trainers in companies launched in 2007 implemented a survey among 280 national VET experts and multipliers from 28 European countries and 60 qualitative interviews with the same target group from about 20 countries (EUROTRAINER Consortium 2008; Kirpal & Tutschner 2008a; 2008b). As a follow-up a quantitative empirical investigation was conducted with VET trainers in the framework of the Network to Support Trainers in Europe (www.trainersineurope.org). In order to reach practitioners down to the level of companies and training institutions a standardised questionnaire was translated into 18 national languages. Overall, the questionnaire consisted of preliminary questions on the respondent's position and professional background and 20 numbered questions on the work environment, job tasks, respondent's competences and their engagement in continuing learning. Apart from some exceptions all questions offered the opportunity for multiple answers, generating data that consists of dichotomised variables with a nominal measurement level.

The questionnaire was distributed at the regional level by the network partners using their respective network contacts. It was disseminated in paper version and was made available online via the SurveyMonkey tool (www.surveymonkey.com) in June 2008. The resulting selective sampling certainly limits how wider conclusions and implications can be drawn from the survey results. Especially the approach by which the opportunity to fill in a questionnaire was merely announced to the target group is inherently in favour of respondents with a more active response attitude.

For the first statistical analysis conducted with SPSS data collection was closed on 27 October 2008. 728 responses were considered for a first analysis of calculation of frequencies and descriptive statistics. A non-representative survey does not allow for the application of inferential procedures, but must rather be considered explorative in nature. Thus, the results only tentatively indicate certain, but interesting, trends. Since the survey results facilitate and inform policy debates at various levels, the survey remains on-going with a final evaluation to follow towards September 2010 (see Kirpal & Wittig 2009 for details).

Results

The two surveys indicate that the dominant job profile and tasks of trainers remain to be centred around the assessment of learning outcomes and the core delivery of training, which is mainly supported by classroom-based teaching, textbooks and didactics of demonstration and imitation. Challenging the rhetoric of lifelong learning

and innovations in training and teaching, it was found in both studies – and across all defined trainer types – that those ‘classical’ tasks and didactical methods dominate trainers’ every day training practice. Only for in-company trainers work-based learning also plays an important role. Those findings were similar for all defined trainer types whereas differences appeared between the different countries, taking account of the respective VET system. The use of classroom-based teaching, for example, predominated in countries with a school-based VET system like Greece or Spain, while in countries with a dual apprenticeship training system like Austria, or countries with a strong practice component in VET like Finland, work-based learning turned out to be the most commonly applied training method.

To a considerable degree trainers also assume tasks to do with quality and cost monitoring; introducing innovations in training practice; counselling and mentoring; and the development of cooperation with other institutions. However, while the rhetoric about changing learning environments and lifelong learning anticipates that the roles, functions, responsibilities and competence requirements of VET practitioners are being reshaped towards standard forms of training and teaching losing significance against new open learning methods that underline the facilitator and counselling role of the trainer, the so far conducted quantitative investigations do not support those assumptions.

For looking at the influence of the different VET systems on trainers’ engagement in continuing learning, their motivation and perception of the attractiveness of working as a trainer, some countries were grouped into 4 clusters: Cluster 1 representing dual training systems (Germany, Austria, Liechtenstein); Cluster 2 representing the school-based model (Estonia, Spain and Greece); Cluster 3 representing deregulated and market-driven VET systems (the Netherlands and the UK); and Cluster 4 being the mixed Scandinavian model (recognising that Denmark and Finland represent the two extremes within the Scandinavian country group). The results indicate that trainers’ attitude towards engaging in continuing learning varies between the 4 country clusters. Apparently, trainers in school-based VET systems spend most time in continuing learning followed by trainers from deregulated systems. In Cluster 1 and 4, by contrast, the time spent on continuing learning tends to be much lower (see Figure 1).

Whereas in dual and in school-based systems trainers tend to hold some kind of formal qualification as a trainer by about 80 per cent, in deregulated systems (Cluster 3) this figure was much less with only a bit more than half of all trainers. On the other hand we find that in school-based and deregulated VET systems trainers spend much more time on continuing learning than in the other two clusters. Here, most of the continuing learning is self-initiated (by about 80 per cent) whereas in dual systems and in the Scandinavian countries it is much more employer-directed or a result of statutory obligations. In the first cluster self-initiated continuing learning was only rated to be at about 50 per cent. The overall high rating on the continuing learning across all trainer types and countries may indicate that the role and competence requirements of VET practitioners are indeed changing, requiring from all kinds of trainers to continuously up-date their knowledge and skills.

On average, how much time do you spend on continuing learning?

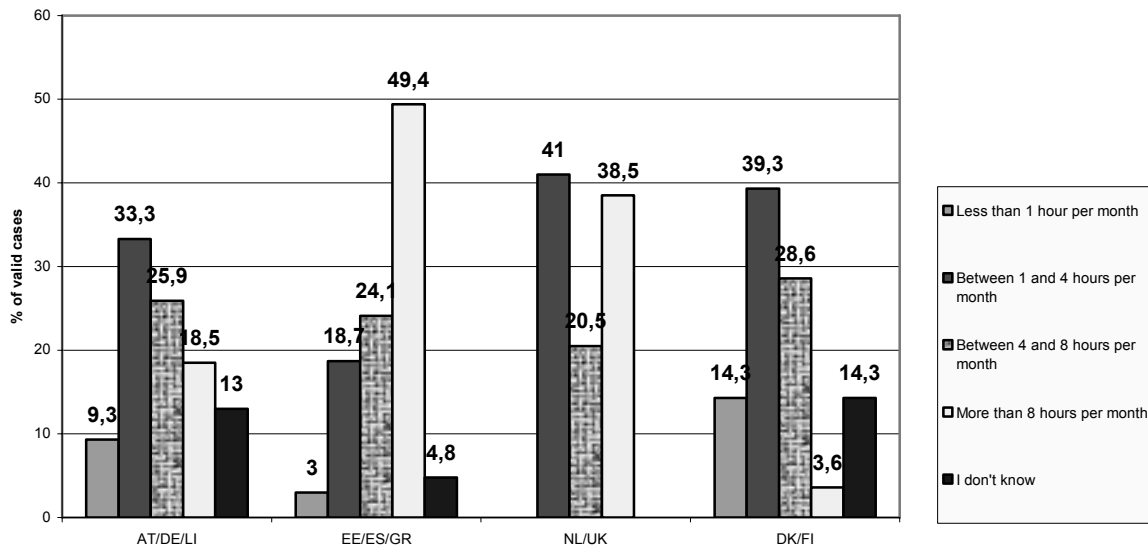


Figure 1: Estimated hours spent on continuing learning

Overall intrinsic motivation such as becoming a better trainer or personal development objectives are the most important drivers for trainers to engage in continuing learning. That the continuing professional development of training practitioners is predominantly driven by personal interest and intrinsic motivation and largely relies on self-initiative is one key finding of the surveys. Similarly, the decision to becoming a trainer in the first place is almost exclusively based on personal interest combined with skilling aspect inherent of taking up new roles and training responsibilities. While for trainers working for a public institution better pay, status aspects or better career prospects are also important, this group turned out to have a less positive attitude towards their profession, engages least in continuing learning and demonstrates a considerably lower level of self-initiative. Self-employed trainers, by contrast, had the highest rating on self-initiative and engagement in continuing learning and demonstrated the most positive attitude towards their profession. Professional full-time trainers in particular demonstrated a very positive attitude towards their profession. The so-called 'part-time trainers', by contrast, assume training functions as an 'add-on' to their regular work as a skilled worker. Most of those 'part-time' trainers in companies perceive that their work is not being valued and adequately compensated. For them assuming training functions helps them to broaden their skills and to get higher recognition among their peers and colleagues. However, it often means additional work, lack of support and not enough opportunities to further develop the skills necessary to improve in their training job. Full-time professional trainers, by contrast, typically have developed a professional identity as a trainer and are more purposeful in performing their training tasks, seeking actively to make a career and develop as a trainer. They are more likely to consider the training profession as attractive.

As concerns the attractiveness of working as a trainer in the 4 clusters of comparative investigation, we found that trainers generally found their job attractive, but least attractive in the Scandinavian cluster (see Figure 2).

Do you think that working as a trainer is attractive or unattractive?

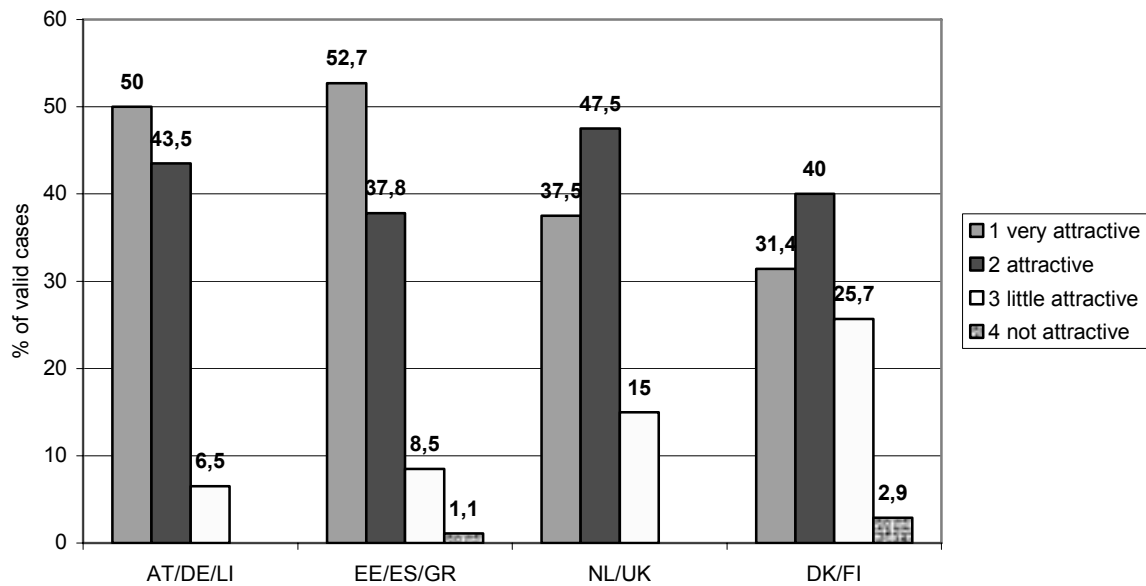


Figure 2: Attractiveness of the training profession

References

- Commission of the European Communities/Directorate-General for Education and Culture (2002) (Ed.): Education and training in Europe: Diverse systems, shared goals for 2010. Work programme on the objectives of the education and training systems. Brussels.
- EUROTRAINER Consortium (2008): Studies on Trainers in Enterprises. Key actors to make lifelong learning a reality in Europe. Bremen: University of Bremen/Institute Technology and Education.
- Kirpal, S. & Tutschner, R. (2008a). Betriebliches Bildungspersonal. Ergebnisse einer europäischen Studie. ITB Research Paper Series No 33/2008. Bremen: University of Bremen/Institute Technology and Education.
- Kirpal, S. & Tutschner, R. (2008b). Betriebliches Bildungspersonal in Europa – eine Bestandsaufnahme. Berufsbildung. Zeitschrift für Praxis und Theorie in Betrieb und Schule, 62, 45-46.
- Kirpal, S. & Tutschner, R. (2009, forthcoming): Trainers in Enterprises in a European Perspective. Evaluate Europe Handbook Series Volume 4. Bremen: Institute Technology and Education/University of Bremen.
- Kirpal, S. & Wittig, W. (2009): Training Practitioners in Europe: Perspectives on their work, qualification and continuing learning. ITB Research Paper Series No 41/2009. Bremen: University of Bremen/Institute Technology and Education.

Well Prepared for the Labour Market?

Employment Perspectives and Job Careers of Young People after a two-Year Basic Training Course with Swiss Basic Federal VET Certificate

Marlise Kammermann

*University of Applied Sciences in Special Needs Education,
Schaffhauserstrasse 239, Box 5850, CH-8050 Zurich*

Summary: Between 2005 and 2009, we employed a longitudinal research method to investigate the vocational path of learners anchored in the 2002 Vocational Training Act's two-year basic training course with Basic Federal VET Certificate. Particular attention was given to transition at the second threshold, i.e., the situation of the young professionals at the end of training and one year after qualification. The results of the study prove that the two-year basic training in the retail sales and hospitality sectors increases permeability to further training, most particularly to the three-year training programme with Federal VET Certificate. Available data cannot provide conclusive evaluations with regard to improved employability: around 88% of those young people with Basic Federal VET Certificates questioned were employed or enrolled on further training programmes. They exhibit greater mobility than those elementary trainees in the same occupational field. The remaining 12%, however, were (still) unemployed one year after qualification.

Keywords: Basic vocational training, labour market integration, underachievers

Introduction

Swiss educational policy aims to ensure that by 2015 95% of all youths have a post obligatory education qualification at upper secondary level (Swiss Conference of Cantonal Ministers of Education 2006). Various measures have been introduced to achieve this aim.

The basic training course with Basic Federal VET Certificate is a two-year, standardised vocational training programme regulated by the 2002 Swiss Vocational Training Act (Swiss Confederation 2002). It is aimed at academically challenged youths and focuses predominantly on practical activities. The standardisation of the training ensures that young professionals with a Basic Federal VET Certificate match labour market needs. This is linked to the expectation that integration into the labour market and permeability to further training – for example, transfer onto the Federal VET Certificate programme – is taken into account (Kammermann et al. 2009b). The elementary training programme, which preceded the enactment of the new Vocational Training Act of 2004, ensured the vocational training of practically talented, underachieving youths and was geared towards the individual ability of the learner, however, in opposition to the new two-year basic training course, it did not lead to a standardised, federally recognised certificate. In the summer of 2007, the first graduates completed a two-year basic training course with Basic Federal VET Certificate in retail sales (retail business assistant) and hospitality (kitchen, restaurant and hotel employees). Co-financed by the Federal Office for Professional Education and Technology, the aim of this research project was to follow the vocational

development of the young professionals with Basic Federal VET Certificates and compare them to the vocational development of young adults who had completed an elementary training programme in the same vocational field. The study focussed upon the training and employment progress of the youths (Kammermann et al. 2009a).

Methods and research design

The prospects of graduates in the last transit through an elementary training programme and those embarking on the first two-year basic training course with Basic Federal VET Certificate - surveyed at the end of training and one year later - formed the core of this investigation.

Sample elementary trainees

134 of the 183 elementary trainees who were questioned shortly before completion of their training in 2006 were available again a year later for a telephone interview. 77 of the 134 questioned were additionally willing to complete a written follow-up survey. The telephone follow-up survey consisted of 77 women and 57 men; 48 women and 29 men took part in the written follow-up survey.

Sample Basic Federal VET Certificate learners

Of the 319 Basic Federal VET Certificate learners involved in the 2007 survey taken at the end of their training, 211 were questioned about their situation a year later. 87 of the young professionals additionally took part in a written follow-up survey. The telephone follow-up survey consisted of 145 women and 66 men; 69 women and 18 men took part in the written follow-up survey.

Contents of the survey

In addition to the questions on academic and familial background, the questionnaire distributed at the end of training also included items for evaluating the training, psychological well-being and immediate professional prospects of those asked. A large number of the questions were taken from the Swiss national youth survey 'Transition from Education to Employment, TREE' questionnaire (TREE 2008). Based on the project 'Lehrvertragsauflösungen im Kanton Bern (LEVA)' (Schmid & Stalder 2008), the survey that followed a year after completion of training was carried out using both telephone and written interviews. The telephone interviews focussed on the employment situation of those questioned and included details on the development of the year since completion of training, apprenticing company or employment establishment, conditions of employment, contentment and future prospects. The written questionnaire concentrated on the learned vocation, conditions of employment or training, subjective psychological well-being and social support – this too, was based on the TREE questionnaire (see above).

The presented results are based on the analysis of differences in frequency distribution and analysis of correlations between two or more variables in the form of chi-square tests.

Results

Prospects at the end of training

The results of the transition at the second threshold show a disillusioning situation: The future for more than half of the questioned elementary trainees and Basic Federal VET Certificate learners is still extremely insecure shortly before completion

of their apprenticeship; only 47% of the elementary trainees and 45% of the Basic Federal VET Certificate learners were guaranteed a continuing solution. There was no significant difference between the two with regards to a secure prospect but there was a difference in the type of prospect. Figure 1 demonstrates that the elementary trainees tend to find a place of employment where the Basic Federal VET Certificate learners tend more towards a continuing apprenticeship.

Multiple Answers Possible	Elementary Trainees		Basic Certificate Learners	
	Questioned(N)	Percent (N=182=100%)	Questioned	Percent (N=319=100%)
Work Assured	76*	42%	99*	31%
Certificate Programme Assured	22*	12%	83*	26%

Comparison of frequency distribution: $p < .05$

* to .05 significant departures from the marginal distribution (corr. residual stand. ≥ 2 resp. ≤ -2).

Figure 1: Vocational prospects at the end of apprenticeship

Employment situation one year after apprenticeship

Former elementary trainees and Basic Federal VET Certificate learners in the retail sales and hospitality sectors did not differ significantly in their vocational solutions (vocational solution = employment or further training) one year after successful completion of their apprenticeship: around 81% of the elementary trainees questioned and 88% of the Basic Federal VET Certificate learners stated that they were in a secure vocational situation. When questioned, 19% of the elementary trainees and 12% of the Basic Federal VET Certificate learners were without employment or apprenticeship positions. The employment situation for the two groups was, however, different: the employed elementary trainees remained more frequently than Basic Federal VET Certificate learners at their apprenticing company, the latter more frequently found employment with another company (Figure 2).

	Elementary Trainees		Basic Certificate Learners	
	Questioned (N=134)	Percent	Questioned (N=211)	Percent
Employed in Learned Vocation in Apprenticing Company	33***	24.6	26***	12.3
Employed in Learned Vocation in Another Company	34	25.4	76	36.0
Placement in Learned Vocation	2	1.5	0	0.0
Paid Employment in Learned Vocation Not in Apprenticing Company	0	0.0	2	0.9
Paid Employment Not in Learned Vocation in Another Company	17	12.7	22	10.4
No Paid Employment, Other	26	19.4	26	12.3

Comparison of frequency distribution: Chi-Square $p = .009$

*** to .01 significant departures from the marginal distribution (corr. residual stand. ≥ 2.6 resp. ≤ -2.6).

Figure 2: Employment situation one year after completion of apprenticeship

Permeability to further training

The aim of increasing permeability to further training programmes through the introduction of the two-year basic vocational training has been achieved: Significantly more young people (26%) in both sectors were on an apprenticeship programme leading to a Federal VET Certificate one year after completing their Basic Federal VET Certificate programme. This is compared to 10% of elementary trainees. It is evident in Figure 3 that the apprenticeships predominantly took place with the initial apprenticing company.

	Elementary Trainees		Basic Certificate Learners	
	Questioned (N=134)	Percent	Questioned (N=211)	Percent
Further Training: Federal VET Certificate in Learned Vocation in Apprenticing Company	6***	4.5	34***	16.1
Further Training: Federal VET Certificate in Learned Vocation in Another Company	7	5.2	21	10.0
Other Further Training	9	6.7	4	1.9

Comparison of frequency distribution: Chi-Square $p=.001$

*** to .01 significant departures from the marginal distribution (corr. residual stand. ≥ 2.6 resp. ≤ -2.6).

Figure 3: Vocational situation one year after completion of apprenticeship

References

- Kammermann, M.; Amos, J.; Hofmann, C. & Hättich, A. (2009a). Integriert in den Arbeitsmarkt? Personen mit Berufsattest im Detailhandel und im Gastgewerbe ein Jahr nach Ausbildungsabschluss. Zürich: Interkantonale Hochschule für Heilpädagogik.
- Kammermann, M.; Hübscher, B. & Scharnhorst, U. (2009b). Standortbestimmung Zweijährige berufliche Grundbildung mit eidgenössischem Berufsattest (EBA). Unveröffentlichter Bericht im Auftrag des Bundesamtes für Berufsbildung und Technologie (BBT). Zürich: Interkantonale Hochschule für Heilpädagogik.
- Schmid, E. & Stalder, B.E. (2008). Projektdokumentation LEVA: dritte Erhebung. Bern: Bildungsplanung und Evaluation.
- Swiss Confederation (2002, Dezember). Bundesgesetz über die Berufsbildung vom 13. Dezember 2002. Bern: Bundeskanzlei.
- Swiss Conference of Cantonal Ministers of Education (2006). Mehr Abschlüsse auf Sekundarstufe II. <http://www.nahtstelle-transition.ch/files/nst6A27d.pdf> (26.4.2009).
- TREE (Eds) (2008). Concepts and Scales. Waves 1 to 7. Bern/Basel: TREE.

A Model for Engaging and Evaluating Innovative Cross-Sectoral Education Reform – Case Studies from Queensland, Australia

Wayne Delaforce and Judi Robinson

Humanities Research Program, Queensland University of Technology, Kelvin Grove Campus, Victoria Park Road, Kelvin Grove, Brisbane, Qld, Australia, 4059

Summary: This paper will explore how a general education can contribute successfully to vocational outcomes using both Participatory Action Research (PAR) and program theory methodology. The paper will focus on the development aspects of ‘marrying’ vocational and general education including engagement processes, student, teacher, institute and employer preparation and the pathway possibilities that emerge. Successful cases presented include: the Healthy Futures program (pathways into the Health and Allied Health industries); the Accounting Pathways program (simultaneously studying a general Accounting subject and a Certificate III qualification by students who previously only considered a university pathway from this subject); and the Sustainable Sciences initiative (development of a vocational qualification that focuses on the emerging renewable energy industry and is linked to school science programs). The case studies are unique in character and application and can be used as a basis for future program development in other settings or curriculum areas.

Keywords: Engaged Scholarship, Action Research, Reflection, and Curriculum Integration

Introduction

In 2004, Queensland initiated one of the greatest reform processes implemented in our education sector. A crucial element of these reforms was the compulsory development of a Student Education and Training Plan (SET Plan) for each student. This plan is a living document that reflects the students’ interests, strengths, weaknesses, goals, desires and life circumstances. It provides the basis for subject selection in the senior phase of schooling and supports the organisation’s goal of providing learning opportunities to meet the needs of all students. However, no one organisation can provide all experiences for all students, so the need for collaborative partnerships to maximise offerings is essential. As with policy and programs generally, education innovation and engagement tends to lack a coherent and explicit theory explaining why and how engagement strategies are likely to achieve desired and articulated outcomes. A series of studies is presented to illustrate the processes, incorporating shared physical, virtual, and human infrastructure as well as curriculum initiatives that represent a multiplicity of activities and levels of interaction.

The initiatives have both a pedagogical and andragogical focus not only on the delivery of the curriculum but also providing real life learning - learning that extends beyond the boundary of the classroom and the education sector. This creates engaged teaching and learning environments for not only the students but for education staff, both teaching and administrative and the broader community. These outcomes are important in achieving program goals that link the sectors core

functions of employment skills, mutual benefit and real world experiences in the curriculum and at the regional level. The examples below reflect this vision and display the benefits of all education providers working together. They are not put forward as the panacea of best practice but are designed to share the stories and learning from grassroots education and community engagement. This work is innovative in its ability to engage the general and vocational education sectors with our region and provide results for our students. Not only around the model presented but in real and pragmatic evidence based results and general schooling can be enhanced through vocational integration but equally the reciprocal holds.

Methodology

In previous published work (Delaforce et al 2007; Delaforce 2004; and Delaforce & Buckley 2003) the use of Program Theory and Logic Models in education sector engagement has been explored, specifically across the Australian jurisdictional context. Program Theory emerged about thirty years ago from the evaluation discipline and has gained wide acceptance as an important framework for understanding program workings and assessing their effectiveness (Friedman 2001). As participation proceeds, so too does learning for participants and a strategy for future activity is determined. It is through this methodology that three innovative programs involving students enrolled in a general education and simultaneously completing vocational qualifications will be examined.

Our educators are operating at the interface boundary (Burkhardt 2002) between the education sector and the broader community, an assertion that is also supported by Basil Bernstein's idea of classification and Ernest Boyer's concept of the scholarships of integration and application. The framework in Figure 1 below provides a link to theory and the translation of theory into praxis that allows people to conceptualise, engage in and evaluate cross-sectoral regional and education engagement. This is then conducted in a reflective and reflexive manner and the model is proposed as a future ongoing regional methodology. The geographic assimilation of education participants across all their pre-existing boundaries has created the space in which a series of communities (the case studies presented are representative) with an axis around education at the regional level.

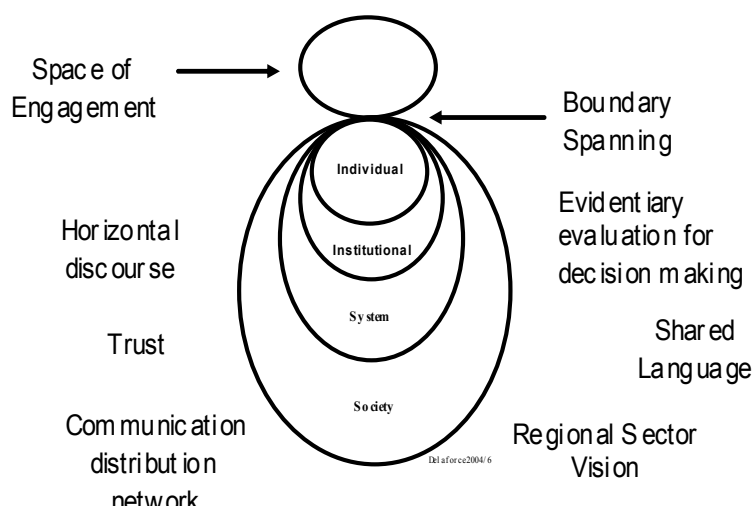


Figure 1: Collaborative Cross-sectoral Delivery Model

The model is grounded within the education sector in the northern corridor geographic location, it has identified a number of mechanisms that allow the

articulated policy outcomes to be achieved and evaluated. These include the capacity to: host and support a space of engagement outside traditional organisational, geographic and political boundaries; engage empowered representatives who can span the boundaries between sectors, organisations, disciplines and the community; share physical, human and virtual infrastructure across sectors; strategically identify, plan, operate, fund and implement regional level initiatives; evaluate articulated cross-sectoral strategies, processes and outcomes.

With an environment of information sharing, language creation and ongoing dialogue evolving, it became apparent that the disciplinary and organisational silos and boundaries internal to agencies and institutions begin to weaken. More accurately become permeable, and in turn enhance horizontal communication. From this evolves a distribution network for the dissemination of both shared information and newly created collective knowledge. As a result, from this constantly evolving dialogue and transaction, emerges a regional meta level unbounded vision that allows collaborative process, interaction, resource utilisation, shared knowledge creation and decision making capacity in education and beyond.

Case studies and results

Accounting Pathways Program

Accounting had always been a traditional university pathway but was identified as a subject that was struggling in schools to attract sufficient numbers to run classes, yet, was in significant demand in the region at tertiary and employment levels. In 2006, the regional education community above began work mapping the Accounting curricula across the education sectors. As a result it was discovered that significant overlap existed. Subsequently, a program was developed that delivers a simultaneous, leveraged and integrated secondary and vocational outcome in the final years of secondary with aligned identified tertiary pathways.

This involves a series of articulated comparative assessments, competency recognition and gap competency delivery. These are delivered by a registered training organisation through a blended delivery model. Outcomes now include not only the secondary accounting program but also a Certificate III Financial Services and the opportunity to achieve a Diploma level qualification with the completion of two additional competencies during their final year. The diploma will then provide access to University Accounting with recognition of the first year of the course. Results to date include the enrolment of 372 students from 10 schools in the senior accounting and Certificate competencies and 72 students enrolled in senior accounting and Diploma. There are also 7 teachers enrolled in the Certificate III competencies and 8 teachers doing a Diploma through recognition of prior learning. This teacher involvement is leading to a greater understanding of VET by doing the program and they are now advocates who have benefited from the vocational link to industry and business that secondary teachers generally do not have.

Healthy Futures Program

This program provides pathways and opportunities in Health and Allied Health careers for young people in secondary education. A scan of the region revealed in 2006 that the Health sector was our second highest employer, but at the same time these industries identified massive skill shortages both current and predicted. In addition no schools in regions connected with the sector or students perused this career pathway. The Health sector looked to recruit mainly from universities or mature aged workers because of misconceptions around school student suitability.

This self-fulfilling prophecy driven by miscommunication and entrenched historical workforce models had created a pathway barrier. A pilot between a major public hospital and an aged care facility created the opportunity for students to enrol in Certificate III Aged Care and undertake on the job training in the industry. This was underpinned by extensive awareness raising, industry visits and a formal interview process as part of the strong preparation phase. Results show a program with initially 19 students has grown to 60 with significant outcomes for participants. The program is marketed as a pathway and articulation arrangement with university entrance established from the Certificate to Degree. Because of initial success the program has expanded to include many more partners, increased numbers of school based trainees and now articulation into other disciplines such as pathology, the therapies, nursing, ward staff and radiographers. Teachers are also now increasingly delivering the VET qualifications as qualified trainers. Finally, it has only recently been announced that the program will go state wide.

SAVE (Sustainable Australia through Vocational Education)

This green initiative now has 90 students and will have 200 by the end of 2009. The program has emerged from an identified need in 2005 for the secondary science curriculum to become real world. The drive was to provide authentic learning and teaching practice and opportunities for students never before available to students with this being specifically written into their science curriculum. The program originally brought together teachers and practitioners from across education and industry to collaborate. The result after seed funding was the development of a Certificate II in Sustainable Energy (Early Career) and an emerging Diploma program specifically developed for students in senior secondary and collaboratively delivered in a blended and blurred delivery model by both VET and schools. This program has been led from VET has significant technology and e-delivery support and now provides the model for a pathway that until this program was unavailable to students.

References

- Bernstein, B. (2000) *Pedagogy, Symbolic Control and Identity: Theory, Research, Critique* Lanhan, Boulder, New York, Oxford: Rowan and Littlefield Publishers, Inc.
- Boyer, E., (1990) 'A Special Report Scholarship Reconsidered Priorities of the Professoriate', The Carnegie Foundation for the Advancement of Teaching, New Jersey: Princeton University Press.
- Burkhardt, J. (2002) 'Boundary-Spanning Leadership in Higher Education', *Journal of Leadership Studies*, 8(2), 145-150.
- Delaforce, W. and Buckley, J. (2003) 'The Northern Corridor Education Precinct – Three Leaf Clover: Education Providers and the Community – A Story of Collaboration, Commitment and the Grassroots', *Bringing Knowledge to Life – Learning and Community Engagement – Conference Proceedings*, University of Western Sydney, Sydney.
- Delaforce, W. (2004) 'Building Community University Engagement: A Program Theory Approach'. Proc. *Social Change in the 21st Century Conference*. Queensland University of Technology, Australia.
- Delaforce, Wayne H. and Buckley, Judi A. and Adkins, Barbara A. and Rich, Bruce R. (2007) *Grassroots Engagement within a Regional Education Environment – A Program Theory Approach*. In: 6th International Service-Learning Research Conference: From Passion to Objectivity: International and Cross-Disciplinary Perspectives on Service-Learning Research, October 13 - October 16, 2006, Portland, Oregon, United States.
- Friedman, V. (2001) 'Designed blindness: an action science perspective on program theory evaluation', *The American Journal of Evaluation*, 22 (2), 161-181.
- Queensland Government (2002) *Queensland the Smart State Education and Training Reforms for the Future: A White Paper*, Brisbane.

WORKSHOP II

**Building Vocational Identity:
A Central Task of Apprenticeship**

**Competence Evaluation and
Development**

Low Achievers' Risky Pathways: PISA Literacy Scores as Predictors of Upper Secondary Enrolment and Graduation

Barbara E. Stalder, Thomas Meyer and Sandra Hupka-Brunner

*TREE, Institute of Sociology, University of Basel
Petersgraben 27, CH-4501 Basel*

Summary: This paper discusses the impact of PISA reading literacy level on the transition to and completion of upper secondary education in Switzerland. Its specific focus is on low achieving students and their chance to enter vocational education and training (VET). Using data from the Swiss youth panel TREE, it can be shown that a surprisingly high percentage of the potential risk group (youths below literacy level 2) complete upper secondary education and training with a basic VET degree. However, direct access to VET programmes after compulsory school seems to be more relevant for successful upper secondary graduation than literacy skills. The results are discussed with reference to the quality of VET degrees.

Keywords: PISA reading literacy, low achievers, transition from education to work, longitudinal study

Introduction

In Switzerland, apprenticeship-based vocational education and training is the most important form of upper secondary education ("dual system"). Apprenticeships are offered in more than 250 occupations with varying academic requirements. In contrast to other Western countries, school-based educational programmes for low-achieving students are very rare (OPET, 2008). For most of the low-achieving school-leavers, entering an apprenticeship is the only opportunity to obtain an upper secondary degree.

PISA is a tri-annual OECD programme which assesses students' reading, maths and science literacy. The concepts employed by PISA have to be understood in the context of the economic structures of the OECD-countries, which are marked by a rapid change of knowledge and skill demands, an increasing demand for highly skilled workers, and a growing importance of life-long learning.

Literacy according to PISA captures students' "ability to apply knowledge and skills in key subject areas and to communicate effectively in problem analysis and problem solving". *Reading* literacy is defined as "the ability to understand, use and reflect on written texts in order to achieve one's goals, to develop one's knowledge and potential, and to participate effectively in society" (OECD/PISA 2001, p. 21). PISA defines five literacy skill levels and sets a critical threshold below which continuation of education at the upper secondary level is jeopardised. Students not reaching literacy level 2 belong to the (potential) "risk group". Their literacy skills are considered not to be sufficient for completing vocational education, getting a first job, and for engaging in life-long learning (e.g. Deutsches PISA-Konsortium 2001, 2002).

In countries with strongly tracked and segregated education systems, such as in Germany or Switzerland, the proportion of low-achievers is higher than in other countries (e.g. Ramseier & Brühwiler 2003). Some 20% of the students in

Switzerland (23% in Germany) did not reach reading literacy level 2 in the PISA 2000 survey (OECD/PISA 2001, p. 45). Accordingly, the problem of low-achieving students weighs heavily on the political agenda.

Focusing on low-achievers' post-compulsory educational pathways, in this paper we first describe how PISA literacy scores are correlated with upper secondary enrolment and graduation. Then, we look at the effects of PISA literacy on upper secondary graduation in a multivariate perspective, controlling for gender, social origin, migrant background and school track at lower secondary level.

Methods and research design

This analysis is based on data from the Swiss PISA follow-up survey TREE (Transitions from Education to Employment) (TREE, 2008; tree-ch.ch). The sample consists of more than 5500 young people from all parts of Switzerland, who have participated in PISA 2000. Their educational and occupational pathways have since been followed up by TREE. PISA-test results and student questionnaire data are available for the entire TREE-sample.

Results

Results show that a surprisingly high percentage of the potential risk group enrolls in and completes upper secondary education and training with a basic VET degree.

Figure 1 shows the distribution of low-achievers in different types of upper secondary education programmes in contrast to high-achieving young people.

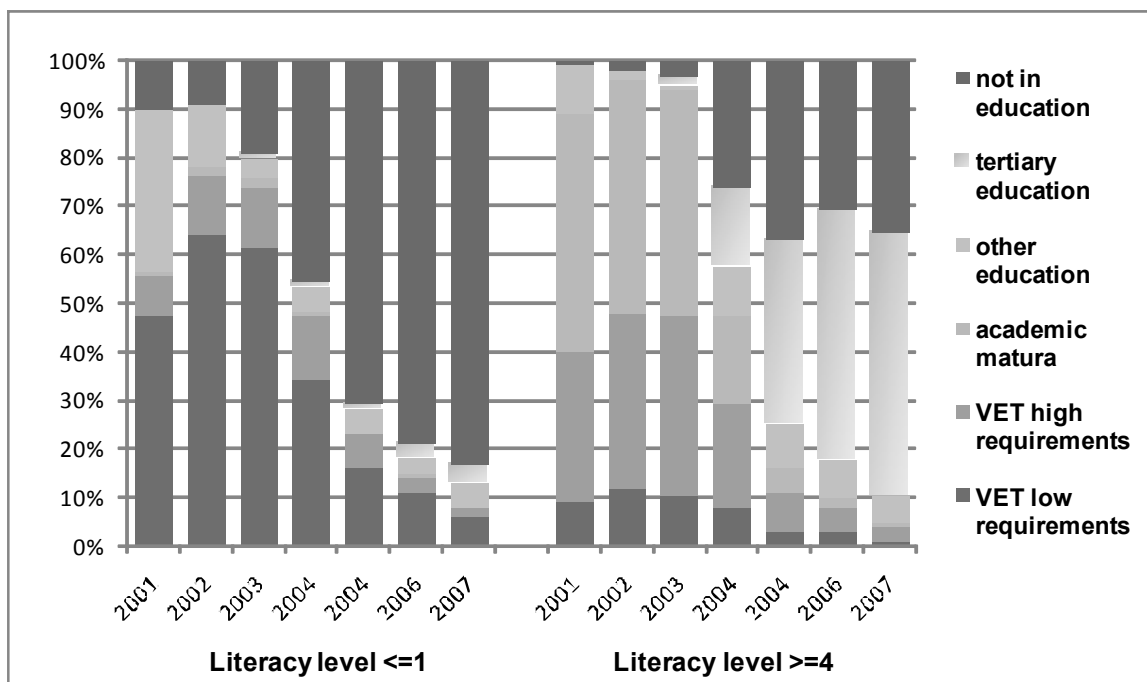


Figure 1: Educational and employment situation of school leavers with very poor and very high reading literacy skills

In the first year after compulsory school (2001), more than half of the school-leavers with literacy level ≤ 1 are enrolled in vocational education and training – most of them start an apprenticeship with low intellectual demand. About one third enrolls in “intermediate solutions” (gap year, 1-year school programmes). Upper secondary enrolment increases in year two (2002), but decreases again soon afterwards. Seven

years after compulsory school, only a small minority of the low-achievers is enrolled in any kind of education.

In contrast to the low-achieving group, nearly all high-achieving students enter upper secondary education directly after compulsory school. Most of them are enrolled in academic “matura” programmes (university-bound general education) or VET-programmes with high academic requirements. In 2007, half of the high-achievers are enrolled in (university level) educational programmes.

Graduation rates and levels of certification seven years after compulsory school show a similar picture (table 1). The higher reading literacy levels, the higher the certificates obtained are. 57% of the students with low skills obtain a federal VET diploma; 38% do not obtain an upper secondary education certificate. Although enrolment and graduation results point to increased dropout risks of low-achievers, the number of low-achieving students who successfully graduate from upper secondary education and training is higher than expected.

Certificate	PISA literacy level				total
	≤1	2	3	≥4	
Federal VET certificate	57%	66%	54%	29%	51%
Vocational matura	3%	8%	20%	21%	14%
Academic matura	1%	5%	17%	47%	19%
Not (yet) graduated	38%	21%	8%	3%	16%
<i>N (=100%)</i>	<i>829</i>	<i>906</i>	<i>1188</i>	<i>1044</i>	<i>3967</i>

F-Test for complex samples, design-based: $F(6.76, 3103.38)=46.96, p \leq .001$

Table 2: Graduation rates seven years after leaving school (2007)

Multinomial regression analysis was used to test the prediction power of literacy scores on graduation chances when controlling for school track at lower secondary level, educational situation in the first year after compulsory school, migrant background, social background and gender (cf. Stalder, Meyer & Hupka, 2008).

Results show that literacy skills strongly affect the chances to obtain certificates which grant access to tertiary education (vocational or academic matura). In contrast, they only marginally predict whether a student reaches a VET certificate or remains without any upper secondary certificate. The best predictor in the model (far better than reading literacy) is the educational situation in the first year after compulsory school: Young people who fail to gain direct access to upper secondary education after compulsory school are at a higher risk to remain altogether uncertified. This holds particularly true for those young people who are not enrolled in any kind of educational programme in the year following compulsory school. Their risk of remaining without VET diploma is more than 9 times higher than the risk of those school-leavers who gained direct access to an upper secondary programme.

Conclusions

Our results suggest that the Swiss VET system is managing rather well in terms of providing educational opportunities for low-achieving students. However, several critical points emerge.

First, low-achievers remain in vocational education or training for a significantly shorter period than students with higher reading literacy. This might result in disadvantages on the labour market later on.

Second, literacy skills do not seem to be the most decisive factor determining whether a young person obtains an upper secondary education certificate or not. School track at lower secondary level, family background and support as well as the possibility to access VET directly and without delay seem to be more important than literacy skills as defined by PISA. This suggests unequal opportunities during transition from lower to upper secondary education.

Third, the quality of basic VET degrees has to be examined in more detail, as surveys on adult literacy skills show but small differences between VET graduates and persons without post-compulsory certificate whatsoever (cf. Falter et al. 2007).

References

- Bourdieu, P. (1977): Cultural Reproduction and Social Reproduction. In J. Karabel (Ed.), *Power and Ideology in Education* (pp. 487-511). New York: Oxford University Press.
- CERI/OECD (Ed.) (2001): *The Well-being of Nations. The Role of Human and Social Capital*. Paris: OECD.
- Deutsches PISA-Konsortium (Ed.) (2000): *PISA 2000. Die Länder der Bundesrepublik im Vergleich*. Opladen: Leske+Budrich.
- Deutsches PISA-Konsortium (Ed.) (2001): *PISA 2000. Basiskompetenzen von Schülerinnen und Schülern im internationalen Vergleich*. Opladen: Leske+Budrich.
- Falter, J.-M., Pasche, C., & Hertig, P. (2007): *Compétences, formation et marché du travail en Suisse. Une exploitation des résultats de l'enquête internationale sur les compétences des adultes (ALL)*. Neuchâtel: Office fédéral de la statistique.
- OECD/PISA (Ed.) (2001): *Knowledge and Skills for Life. First Results from PISA 2000*. Paris.
- OPET (2008) : *Vocational education and training in Switzerland. Facts and figures*. Bern: Federal Office for Professional Education and Technology.
- Ramseier, E., & Brühwiler, C. (2003): *Herkunft, Leistung und Bildungschancen im gegliederten Bildungssystem: Vertiefte PISA-Analyse unter Einbezug der kognitiven Grundfähigkeiten*. *Schweizerische Zeitschrift für Bildungswissenschaften*, 25(1), 23-58.
- TREE (Ed.) (2008): *TREE project documentation 2000-2008*. Bern/Basel: TREE
- Stalder, B. E., Meyer, T., & Hupka-Brunner, S. (2008): *Are low achievers necessarily dropouts? PISA scores as predictors of upper secondary graduation. Findings from the Swiss PISA follow-up TREE*. *Die Deutsche Schule*, 100(4), 438-451.

Occupational Identity and Motivation of Apprentices in a System of Integrated Dual VET

Lars Heinemann, Felix Rauner

*TVET Research Group, University of Bremen
Leobener Str. / NW2, D-28359 Bremen, Germany*

Summary: This contribution analyses the role of competence models for the measurement of competence and competence development. It compares various models and highlights different underlying assumptions and consequences.

Keywords: competence, competence measurement, competence development

Introduction

Measuring occupational competences, one needs a thorough understanding on what one is measuring then, how and why. A competence model therefore is crucial in terms that it seeks to operationalise the different dimensions of competence that play a role in a specific domain.

Developing such a model requires first to delimit the notion of competence. Most of the 29.000 hits one gets at Google for 'Kompetenzmodell' or 'competence model' in fact describe qualifications directly derived from occupational requirements e.g. in management. By contrast, a notion of competence needed for measuring occupational competences in large scale surveys refers to competence as an individual disposition. In some traditions, this matches the idea of broader (USA) or more narrowly defined generic skills, (UK, Australia). The OECD approach to competences strengthens the focus on individual dispositions even further in relating it to cognitive abilities. Weinert accordingly defines competences as "cognitive abilities that are available for or learnable by individuals as well as the related motivational and volitional readiness to solve specific problems" (Weinert 2001: 27). A competence model usually structures these cognitive dispositions according to different dimensions.

Competence models normally range over three different dimensions. First, there is the 'objective' dimension of content. As is commonly known, a competence as a latent construct can only be seen via performance. This performance has to be displayed in the area of some given content - *what* kinds of problems a given competence can tackle, may it be general school subjects or occupational competence. Thus, a relation to the subject matter is an indispensable prerequisite for the development of competence. The second dimension is 'subjective' dimension on *how* a given problem is treated. Individuals act differently when encountering a given problem due to the competence they already acquired. Finally, the third dimension of competence models normally refers to the difficulty of problems. Figure 1 gives an example of a competence model developed for physics, based on a model for scientific literacy developed by Bybee (1997).

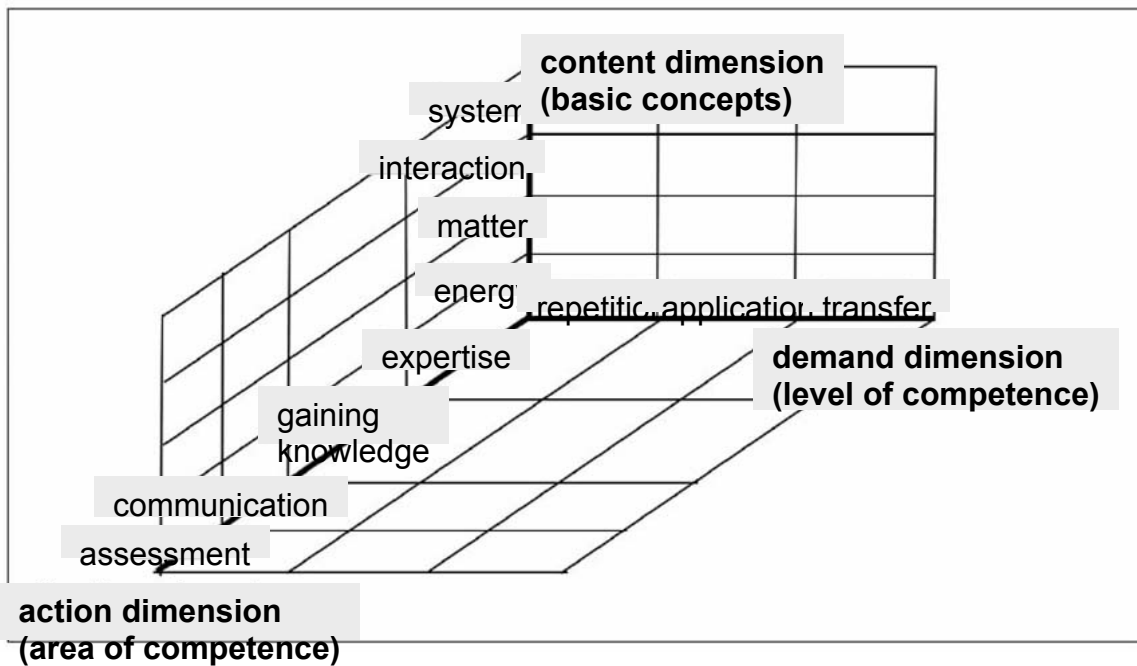


Figure 1: Competence model in physics (KMK 2005; expanded by Schecker/Parchmann 2006: 55)

Results

Measuring occupational competences aims at depicting specific outcomes of education processes - in VET, specifically, those outcomes that enable to act professionally in a certain occupational domain.

Because competence models mediate between the general notion of competence on the one hand and empirical testable tasks on the other, they are of paramount importance for the whole of competence measurement. The contents they contain and the way they are designed predetermine which characteristics of which competences are measured and can be measured - and which not.

At this stage, the contribution will discuss three different propositions of competence models in VET. Griffin et al. (2004, 2007) tried to develop a model that is quite close to 'assessment', focussing on item response modelling. For the commercial occupations, Achtenhagen/Winther (2008) suggested a model that centres around the core competences of being able to develop mathematical models of business processes (fig. 2). They rely on the idea to measure performance in competence testing according to aberrations from 'ideal' solutions to specific problems.

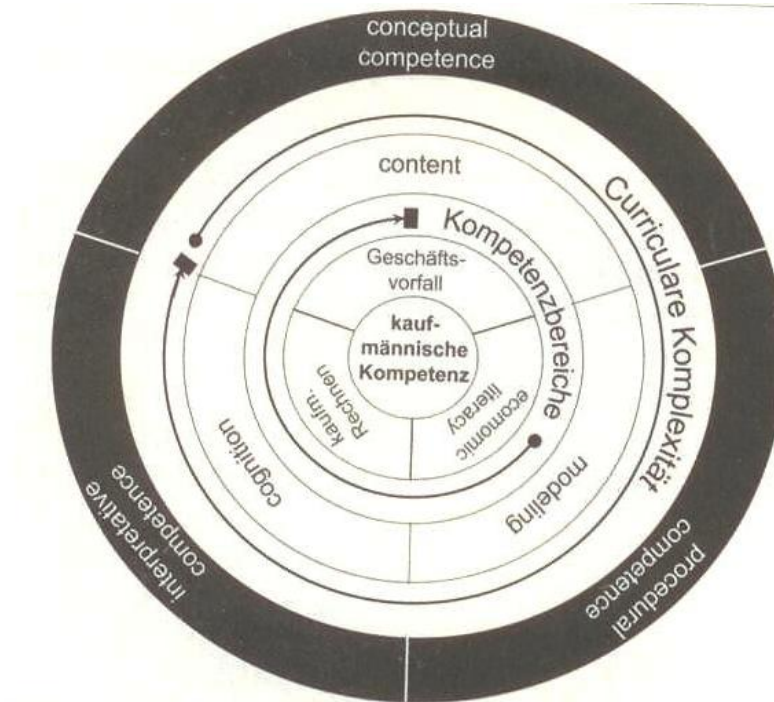


Figure 2: Competence model for commercial occupations (Winther/Achtenhagen 2008: 532)

Finally, Rauner et al. (2008, 2009) suggested a model based on the notion of the capacity to act in a specific occupation (fig. 3). Here the overall idea is to model competence according to the way expert workers are carrying out tasks.

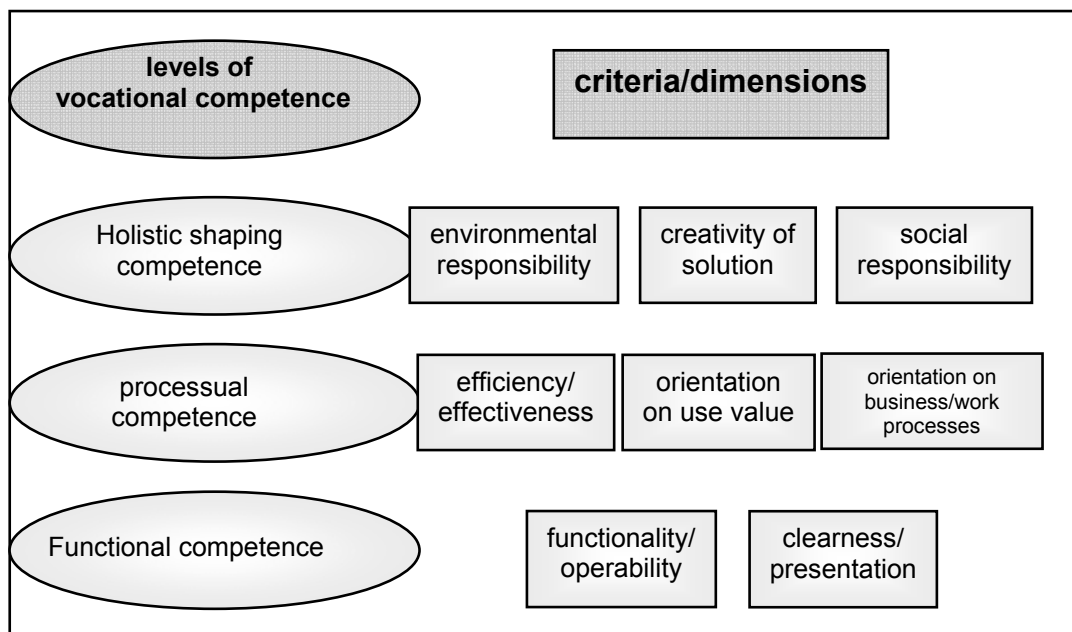


Figure 3: Vocational competence model (applied at electro occupations) (Rauner et al. 2008: 88)

Obviously, all these models differ greatly according to what dimensions of competence they aim at. This implies differences on the validity of the measurement as well. And finally, it follows that there are differences in terms of the measurements overall orientation: do the models aim primarily at assessment, or do they have the

potential not only to evaluate the output of educational processes but to serve as an instrument of changing learning processes as well? And: should such models restrict themselves to pure measurement or not? In the contribution, these questions will be discussed in detail.

References

- Bybee, R. 1997. *Achieving Scientific Literacy: From Purposes to Practices*. Portsmouth, NH: Heinemann Publishing.
- Griffin, Patrick, Gillis, Shelley, Calvitto, Leanne (2004): *Connecting Competence and Quality: Scored Assessment in Year 12 VET*. University of Melbourne.
- Griffin, Patrick, Gillis, Shelley, Calvitto, Leanne (2007): *Standards-Referenced Assessment for Vocational Education and Training in Schools*. *Australian Journal of Education* 51:1, 19-38.
- Nickolaus, Reinhold (2008): *Modellierungen zur beruflichen Fachkompetenz und ihre empirische Prüfung*, in: *ZBW 1* (2008): 1-6.
- Nickolaus, Reinhold, Gschwendtner, Tobias, Geissl, Bernd (2008): *Entwicklung und Modellierung beruflicher Fachkompetenz in der gewerblich-technischen Grundbildung*, *ZBW 1*(2008): 48-73.
- Rauner, Felix et al (2009): *Messen beruflicher Kompetenzen. Band I. Grundlagen und Konzeption des KOMET-Projekts*. Reihe Bildung und Arbeitswelt. LIT. Münster.
- Rauner, Felix et al (2009): *Messen beruflicher Kompetenzen. Band II. Ergebnisse KOMET 2008*. Reihe Bildung und Arbeitswelt. LIT. Münster.
- Winther, Esther, Achtenhagen, Frank (2008): *Kompetenzstrukturmodell für die kaufmännische Bildung. Adaptierbare Forschungslinien und theoretische Ausgestaltung*. *ZBW 4* (2008): 511-538.
- Weinert, F.E.: *Leistungsmessung in Schulen*. Weinheim: Beltz.

Occupational Identity in Australian Traineeships: An initial Exploration

Erica Smith

*Research and Graduate Studies Office, University of Ballarat,
University Drive, Mt Helen, Victoria, Australia, 3353*

Summary: The development of occupational identity is taken for granted in Australian apprenticeships. The apprenticeship system grew from European traditions and was formally established with sets of qualifications in the immediate post-Second World War period. The sense of 'being' a carpenter, a mechanic or a hairdresser is part and parcel of the process of thinking about a career in a craft or trade, applying for an apprenticeship, undergoing the training period and the eventual practice as a skilled worker. Trainers, employers, trade unions and policy-makers share a commitment to the apprenticed trades as distinct and valuable occupations. This paper looks at the issue of identity in occupations covered by traineeships, which are similar to apprenticeships but have been established for a much shorter time. In an initial and small-scale exploration of this complex area, this paper reports on data from two case studies of traineeships in Australia, which were undertaken as part of a larger project on traineeships (Smith, Comyn, Brennan Kemmis & Smith forthcoming 2009). One traineeship studied was in cleaning, an industry which has only recently developed formal qualifications and suffers from a perception of low status; the other was a qualification in 'general construction', an industry which has had longstanding apprenticeship traditions in a range of specific trades. The case studies showed the complex issues surrounding the presence or absence of clear senses of occupational identity in traineeships, which include issues of gender. The paper draws some initial conclusions and suggests some policy implications and some directions for further research.

Introduction

In the Australian vocational education and training (VET) system apprenticeships and traineeships are very important. They account for about one-quarter of the 1.6 million annual enrolments in VET qualifications (National Centre for Vocational Education Research, 2007). VET qualifications are gathered together into around 80 occupation-focused competency-based 'Training Packages'. Apprentices and trainees, unlike in some other countries are always employed; part-time workers and adults are legible as well as young people in full-time work (Smith et. al. forthcoming 2009). They undertake formal training which may be by attendance at a TAFE Institute (the public provider) or a private Registered Training Organisation (RTO) or may consist of formalised training in the workplace which is monitored and assessed by TAFE or another RTO. The government funds the formal training and also provides employment incentives to employers. About 15% of apprentices and trainees are employed through Group Training Organisations (GTOs) which perform a type of 'labour hire' function with added pastoral care elements (Smith 2008).

GTOs are often part of umbrella organisations that also include RTOs and occasionally, enterprises that employ more disadvantaged clients who might find difficulty finding work in the open labour market.

Traineeships were established in the late 1980s as a result of a deliberate government policy to expand access to contracted training opportunities (ie apprentice-like arrangements) to a broader set of industry areas and to women (Kirby 1985). The majority of traineeships are in areas where apprenticeships did not previously exist (eg retail, IT, business, aged care) and generally last for 12-18 months rather than the three to four years of an apprenticeship. While trainees are now more numerous than apprentices (National Centre for Vocational Education Research 2007), the sense of occupational identity appears to be lacking, leaving the traineeship system vulnerable to attack. There is a comparative dearth of scholarly work about traineeships; early work focused primarily on perceived poor quality and employer abuse of the system in order to access funding advantages (eg Schofield 2000). Later work focuses on the use which employers make of traineeship qualifications to lift their companies' quality standards (eg Smith, Pickersgill, Smith & Rushbrook 2005; Booth, Roy, Jenkins, Clayton & Sutcliffe 2005).

As Valenduc, Vendramin, Krings and Nierling (2007) state, occupational identity is becoming increasingly common as a topic for study. Brown (2004: 245), referring to Dewey's work, describes occupational identity as 'a "home" with psychological, social and ideological "anchors"'. He notes that while occupational identities may be fixed through history in some cases, individuals also have the opportunity to shape occupational identity either for themselves or for a group of workers. In his study of engineering workers, Brown (2004) noted that while some were firmly attached to the occupation, others were just 'passing through', while others found their identity primarily through their employing company.

Research methods

The '*asset maintenance (cleaning)*' study was carried out through interviews with senior officers of a national employer association and a national trade union operating in the cleaning industry, the traineeship manager of a national commercial company that includes cleaning among a range of services offered to other businesses, two staff from a Group Training Organisation in Victoria that as part of its operations employs disadvantaged people in a cleaning enterprise, the curriculum manager of the construction area¹ in a State TAFE system, and a curriculum manager of a large private RTO with a broad clientele in the cleaning industry. In addition, a case study was carried out within a small cleaning firm in a regional city in Victoria, involving interviews with the manager, two trainees, and the co-ordinator of the cleaning traineeship course offered by the nearby TAFE Institute. This firm had chosen to enrol its entire staff in traineeships to ensure a uniform level of quality in its operations.

The *general construction* case study included interviews with large number of national stakeholders. A large number was necessitated because it quickly became apparent that the traineeship qualification was highly controversial. The interviewees included senior officers of the two major employer associations, a national and State Skills Council, the major trade union, a large private training provider affiliated with a

¹ Cleaning is included within the general area of construction by most training providers, and is covered by the national Construction Skills Council.

State branch of the union, and an RTO in a remote area of Western Australia that specialised in providing construction traineeships to young indigenous people. Two case studies were also carried out: in a large GTO in a medium-sized city and a small house-building firm in a small regional town. In each of the case studies, interviews were carried out with a senior manager, two trainees and a trainer from the relevant training provider (in the case of the GTO, the RTO was part of the GTO).

The data derived from the case studies were used to inform the development of a number of models and conclusions as part of the bigger project. For this paper the data relating to occupational identity have been drawn out and analysed to begin an examination of occupational identity in traineeships. It is a limitation of this paper that the research was not carried out for the sole, or even major, purpose of examining occupational identity. The focus of the project was on quality in traineeships. The question of occupational identity was addressed in at least one question put to each respondent type, but was not discussed in great detail.

Overview of findings from the two industry case studies

Cleaning in Australia is a large but low-profile industry which has traditionally employed casual staff, with a large turnover. Before the advent of the Training Package in 2004 there were no national qualifications and the industry believed that the wide use of traineeships would not only lead to greater worker satisfaction, lower labour turnover and better career paths, but also higher industry standards and a better safety record in the industry. The research clearly indicated the depth of skills and knowledge required to be an effective cleaning worker and the rapid technological advances in the industry, which were however unevenly distributed among companies. Many workers in the industry had language or literacy difficulties and the training methods needed to account for these. Government traineeship incentives were important for most employers because of low profit margins. The passion of some of those working in the cleaning training area for their industry was evident in the research although the State TAFE curriculum manager (who was from a construction background) was highly disparaging about the industry and had no interest in expanding that area of his operations. The company case study showed the company's manager and the trainer from the RTO, a TAFE Institute in a different State from the State TAFE curriculum manager, enthusiastic and committed to the industry. The workers enjoyed their traineeship but, one felt, would have been equally happy working without formal training. However the national commercial company emphasised the motivation that she felt trainees received from undertaking qualifications.

The construction industry in Australia was important to the economy and was experiencing skills shortages in some trades partly because the industry has become increasingly sub-contracted, with sub-contractors reportedly unwilling to employ apprentices. The Certificate II general construction qualification available at the time of the research was something of a compromise among competing interest groups. Trade unions did not want to interfere with the integrity of the apprenticeship qualifications, which were at Certificate III level and divided into trade areas, so the traineeship qualification was a general course which did not provide skills that led to a licence to practice. Little credit transfer was available from the traineeship qualification into the apprenticeship qualification. Proposed new qualifications, which appeared to be more appropriate in terms of actual skills delivered and also articulation possibilities, were the subject of political argument, which is still unresolved over a year after the research was completed. Trade union interests objected to the 'fragmentation' of the traditional apprenticed occupations and feared

that employers would choose to employ 'half-qualified' workers. Employers on the other hand preferred the option of 'half-qualified' to unqualified workers. The traineeship was mainly used for particular client groups, eg disadvantaged groups and school-based trainees, although there were some mainstream examples, as in the small company case study. This case study showed attitudes to training similar to those for a traditional apprenticeship, and indeed the company 'put the boys on' as apprentices when they had finished their traineeships. In one of the companies that the GTO dealt with, a major national construction company that operated mainly through sub-contracting, the trainees appeared to be poorly supervised and unhappy in their work. It seems that some education of employers is necessary to compensate for lack of experience with traineeships and in some areas of the industry, lack of experience even with apprenticeships due to sub-contracting.

Discussion of issues related to occupational identity

As Brown (2004: 266) notes, occupational identity formation depends on a number of factors at the level of the individual, the organisation and society as a whole. The findings of this study are briefly discussed under these headings.

Individual. A possible reason for the lack of occupational identity is that many trainees may be 'put onto' traineeships by their employers as part of a cohort of workers without a clear sense of what being a trainee may involve, whereas it is unlikely that an apprentice would not know what was in store if his or her employer or potential employer offered an apprenticed position. While employees appreciate gaining a qualification it is not clear how much status they attach to the qualification. Valenduc et. al. (2007) refer to organisational identities being more common than occupational identities in the service industries and this certainly seems to be a feature among workers in the cleaning industry, although not among managers and some trainers.

The organisation. Employers are still relatively inexperienced in employing trainees (Rowlands 2000) and may not themselves have undertaken traineeships. In the construction industry which is heavily apprenticed, individual employers are very clear about how to manage trainees, but large-scale companies operating by project management are less clear. Other organisations besides companies are involved in occupational identity formation. Trade unions showed a highly conservative face in this project, resisting the advent of new occupations and protecting traditional interests. This was shown most clearly in the construction case study but in the cleaning case study the trade union representative also showed some resistance to the idea of traineeships, although to give him credit he was self-reflective about his attitude and attempted to remain open-minded. Resistance to threats to occupational hegemony arising from occupational diversification is a feature particularly of male occupations (Ashcraft 2005).

Society as a whole. Traineeship occupations in Australia are currently of lower status than apprenticed occupations. The presence of a long-established apprenticeship qualification in itself, in a circular process, may create this prestige: there is a collective sense of occupational identity which adds to the individual sense of occupational identity (Valenduc et. al. 2007). The passage of time may assist recognition of these occupations as equal in status, but it is likely that continued resistance from male trade interest groups will hamper the process.

Conclusion

As noted, the focus of the research project was not on occupational identity and that only a small part of the questioning was in this area. However, much information about the question of occupational identity could be derived from the data. There were clear examples of some respondents' openness and others' closedness to the possibility of strong occupational identities being possible and describable in areas of work that were not previously regarded as worthy occupations. The paper is however only an initial exploration of this area. It is suggested that the research method - involving interviews at different levels within the VET system and within companies - is a suitable method for a larger study.

References

- Ashcraft, K. (2005): Resistance through consent? Occupational identity, organizational form, and the maintenance of masculinity among commercial airline pilots, *Management Communication Quarterly*, 19:1, 67-90.
- Booth, R., Roy, S., Jenkins, H., Clayton, B. & Sutcliffe, S. (2005): Workplace training practices in the residential aged care sector, Adelaide: NCVER.
- Brown, A. (2004): Engineering identities, *Career Development International*, 9:3, 254-273.
- Kirby, P. (1985): Report of the committee of enquiry into labour market programs Canberra, AGPS.
- National Centre for Vocational Education Research (NCVER) (2007): Australian vocational education & training statistics: Apprentices & trainees, Annual, Adelaide: NCVER.
- Rowlands, B. (2000): How owner/managers decide to participate with new apprenticeships for the first time: A grounded theory approach, *Future research, research futures: 3rd Annual Conference of the Australian Vocational Education and Training Research Association*, 23-24 March, Canberra.
- Schofield, K. (2000): Delivering quality: Report of the independent review of the quality of training in Victoria's apprenticeship & traineeship system, Melbourne, Office of Post Compulsory Education & Training.
- Smith, E. (2008): The crowded market: Agencies dealing with apprenticeships in Australia. Situated competence development through innovative apprenticeships, *Conference of the International Network on Innovative Apprenticeships*, Vienna.
- Smith, E., Comyn, P., Brennan Kemmis, R. & Smith, A. (forthcoming, 2009): High quality traineeships: Identifying what works, Adelaide: NCVER.
- Smith, E., Pickersgill, R., Smith, A. & Rushbrook, P. (2005): Enterprises' commitment to nationally recognised training for existing workers, Adelaide: NCVER.
- Valenduc, G., Vendramin, P., Krings, B-J. & Nierling, L. (2007): Occupational case studies: Synthesis report & comparative analysis. WORKS project, <http://www.ftu-namur.org/fichiers/WORKS-D11-final.pdf>

Occupational Identity and Motivation of Apprentices in a System of Integrated Dual VET

Ursel Hauschildt and Lars Heinemann

*TVET Research Group, University of Bremen
Leobener Str. / NW2, D-28359 Bremen, Germany*

Summary: This contribution focuses on the results of a large-scale survey of more than 1500 apprentices in Bremerhaven, Bremen and Hesse using four different scales to measure occupational identity, organisational and vocational commitment as well as work ethics. The findings gained from this analysis explain the necessity to improve the degree of work-process orientation and also to improve the quality of learning venue's co-operation.

Keywords: occupational identity, commitment, motivation

Introduction

When analysing apprentices' motivation and the development of their occupational identities, one tends to look at these concepts as individual inputs into the process of acquiring competences in a development from novice to expert. But as developing competences is intrinsically linked to acquiring a professional identity as a member of a community of practice, such identity is an aim of vocational education as well. Apprentices' motivation, too, is not a static factor. Right on the contrary, it is changing during the apprenticeship in terms of extent as well as in terms of the normative sources of motivation – 'abstract' work in itself, the organisation or the profession.

These changes, then, can be empirically analysed according to organisation of learning processes at the company and/or at school as well as in their relation to the development of vocational competences.

Methods and research design

Within the frame of the KOMET project and the project "Innovative Berufsbildung 2010", the Bremen TVET Research Group has developed a model of competence measurement, which was tested at more than 1500 apprentices in Bremerhaven and 900 apprentices in Bremen and Hesse, Germany.

The basis of the commitment-scale is a concept of three interrelated aspects of commitment, which have an impact on occupational identity and thus competence development (fig. 1).

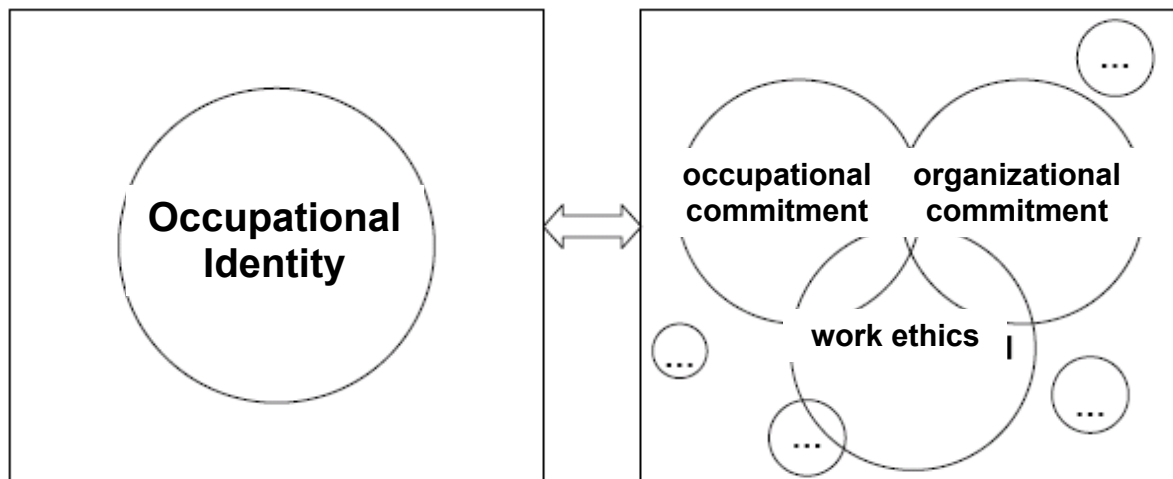


Figure 1: occupational identity and interrelated fields of commitment

We identified three possible points of reference for motivation:

1. occupational commitment, which is the basis of one's identification with his or her profession (Cohen 2007),
2. organisational commitment, which refers to an apprentices' identification with the company he or she is working in and
3. work ethics, representing attitudes towards work that are not related to the profession but are based upon other elements in one's personality, i.e. accuracy, reliability etc.

In order to measure sources of motivation, three different scales have been developed: abstract work ethics and motivation related to the organisation and the occupation. Another scale measures different aspects of development of vocational identity – the will to relate one's work to the occupation, the companies' work processes and to shape work and technology. Additionally, several established scales have been used to measure different aspects of the organisation of work and learning at the workplace, the school and the extent of co-operation between the two. All scales had been tested in pre-tests and have been psychometrically verified and proved reliable (Heinemann/Rauner 2008).

The study of 1.500 apprentices in the town of Bremerhaven puts a focus on the relations between vocational identity, motivation and the organisation of work and learning (Heinemann/Rauner 2009) in more than 40 professions. One of the central questions was whether occupational or organizational commitment had a stronger influence on the development of occupational identity and motivation.

Apart from the three scales measuring the normative aspects of commitment, a fourth scale measures vocational identity. Vocational identity has a different meaning and significance for each profession. In order to obtain comparable results reflecting the development of vocational identity of apprentices in all professions, it is necessary to exclude all items that are specifically related to only one or a few professions.

For this reason, this scale refers mainly to those cognitive and emotional dispositions that come along with the development from novice to expert and lead to vocational competence. Three aspects were analysed in this respect:

- Orientation (concern and motivation to understand the context of one's actions/work process orientation)

- Shaping (concern and motivation to participate in shaping/designing one's work and working techniques)
- Quality (concern and motivation to deliver high quality products or services).

The scale measuring vocational identity is thus measuring the extent up to which an apprentice is referring to these three aspects concerning his or her individual profession.

Results

In general, the prevailing conditions and circumstances under which apprenticeship takes place have a strong impact on the apprentices' occupational identity. As for the profession "automobile sales management assistant" for example, both types of commitment, vocational and organizational commitment are extraordinary high. Moreover, in terms of socio-demographic variables, if the occupation has been the apprentice's dream job is of crucial importance for motivation as well as the development of vocational identity.

Motivation is highly related to the way the actual learning and working at the workplace takes place, and does not change much for the various years of apprenticeship. Normative sources of motivation also remain relatively stable throughout the years, a fact that may have to do with many companies and schools not actively trying to foster apprentices' motivation.

We also analysed, whether occupational identity relates more to vocational commitment or organizational commitment. Both types of correlation exist. The type of apprentices whose commitment is rather vocationally determined is coexisting along with the type of apprentice who is more organisationally motivated. Occupational commitment is more relevant for commercial and technical professions whereas organizational commitment prevails in the domains of commercial vocations.

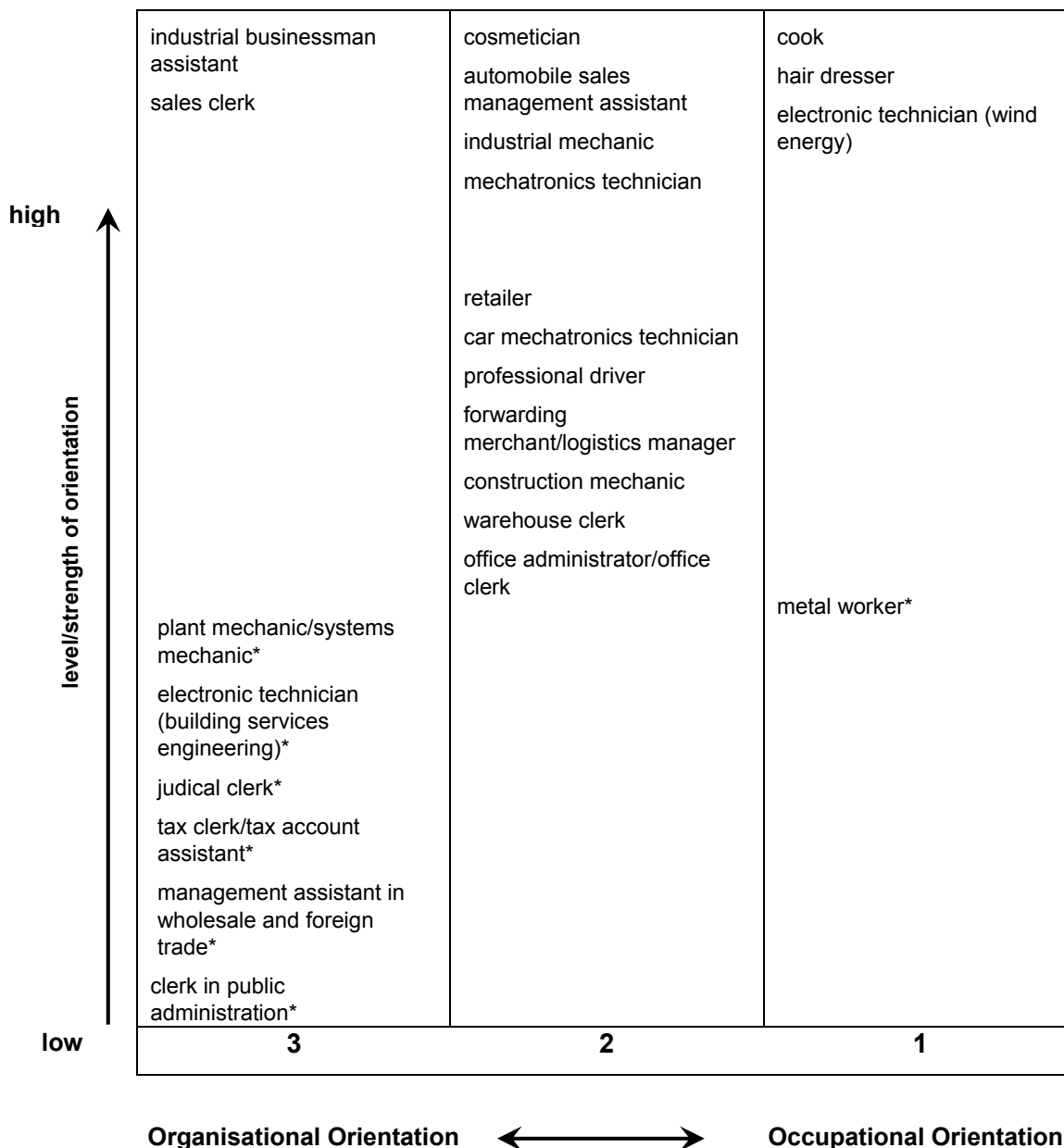


Figure 2: Classification of various occupations according to organisational and occupational orientation. *generally weaker scores

Moreover, occupational motivation as well as vocational identity is related to the different professions, e.g. administrative professions scoring much lower. This is related to the way apprenticeships are carried out, carrying out complex tasks mostly independent having a strong effect on motivation as well as identity.

Relations to competence development seem to be rather weak. As the results on competence development show, the general level of competence in the third year does not exceed much the level already acquired in the second year and remains mostly functional. Motivation is stagnating here as well, pointing at necessities of change in the way teaching and learning at VET schools is organised.

The analysis also shows that the quality of co-operation between the two paces of learning, namely the vocational schools and the apprenticing companies also determines the development of vocational and occupational commitment. A good quality of co-operation between learning venues enhances and a rather poor quality hinders it.

References

- Blankertz, H. (1983): Sekundarstufen II – Didaktik und Identitätsbildung im Jugendalter. In: Benner, D.; Heid, H.; Thiersch, H. (Hrsg.): Beiträge zum 8. Kongress der Deutschen Gesellschaft für Erziehungswissenschaft. ZfPäd, Beiheft 18: 139
- Brown, A.; Kirpal, S.; Rauner, F. (2007) (Eds.): Identities at work. Dordrecht: Springer.
- Cohen, A. (2007): Dynamics between Occupational and Organizational Commitment in the Context of Flexible Labour Market: A Review of the Literature and Suggestions for a Future Research Agenda. ITB
- Heinemann, Lars, Rauner Felix (2009): Engagement und Ausbildungsorganisation. Einstellung Bremerhavener Auszubildender zu ihrem Beruf und ihrer Ausbildung. Eine Studie im Auftrag der Industrie- und Handelskammer Bremerhaven. http://www.ibb.uni-bremen.de/fileadmin/user/A_B_Forschungsberichte/IE_Studie_Bhv_240609.pdf (letzter Zugriff: 1.8.2009)
- Heinemann, Lars (2008): Identität und Engagement: Konstruktion eines Instruments zur Beschreibung der Entwicklung beruflichen Engagements und beruflicher Identität. A+B Forschungsberichte. <http://www.ibb.uni-bremen.de/A-B-Forschungsberichte.268.0.html> (letzter Zugriff 2.5.2009)
- IHK Bremerhaven; I :BB (2009) : Engagement und Ausbildungsorganisation. Einstellungen Bremerhavener Auszubildender zu ihrem Beruf und ihrer Ausbildung. Eine Studie im Auftrag der Industrie- und Handelskammer Bremerhaven. IHK Bremerhaven;I:BB. Bremen. (im Erscheinen)
- Porter, L. W.; Steers, R. M. et al. (1974): Organizational Commitment, job satisfaction, and turnover among psychiatric technicians. New York: Academic Press.
- Rauner, Felix et al (2009): Messen beruflicher Kompetenzen. Band I. Grundlagen und Konzeption des KOMET-Projekts. Reihe Bildung und Arbeitswelt. LIT. Münster.
- Rauner, Felix et al (2009): Messen beruflicher Kompetenzen. Band II. Ergebnisse KOMET 2008. Reihe Bildung und Arbeitswelt. LIT. Münster. (im Druck)
- WINCH, C. (2003): OCCUPATIONAL IDENTITY AND VOCATIONAL EDUCATION. EDUCATIONAL PHILOSOPHY AND THEORY 35 (1): 117

Ensuring Inter-Rater Reliability in a Large Scale Competence Measurement Project in China

Andrea Maurer, Felix Rauner, Lars Heinemann

*TVET Research-Group, , University of Bremen
Leobener Straße, NW2, D-28359 Bremen, Bremen*

Summary: Within the framework of a project on large scale competence diagnostics in the area of electro technology (KOMET), more than 600 students worked on open test tasks. Their solutions were judged by teachers specialised in this area, using a standardised rating method based on 39 items. An essential condition for this method is a sufficient level of inter-rater reliability. In Germany, this was assured by a rating training programme. The project's extension to a group of Chinese VET students had to consider some possible barriers concerning differences in VET systems and programmes. However, these differences were found to not impede successful competence measurement. A three-day judges training which is described in this article led to sufficient inter-rater reliability, indicating that the Chinese judges internalised the underlying competence and measurement model.

Keywords: judges training, inter-rater reliability, large scale competence measurement, open test task

Introduction

In 2008, the project "Large scale competence diagnostics in the area of electro technology – KOMET" was initiated in an attempt to test a method of competence diagnostics for VET. More than 600 German apprentices worked on open test tasks which were developed by experts in this area.

Although methods of large scale competence measurement should be applicable internationally, the project's extension in 2009 to a group of 800 Chinese apprentices had to consider some possible barriers such large scale surveys in VET encounter (Rauner et. al. 2009). Differences in VET programmes and systems between Germany and China (Zhao 2003), different national traditions regarding the societal organisation of labour and different national traditions regarding the role of occupations in VET might impede competence measurement with the same instrument. One precondition for an international competence measurement lies in the validity of the test tasks. They have to be related to core of the respective profession that exists internationally (occupational validity). Furthermore, one has to check the tasks' curricular validity as well: to what extent do the different curricular address the competence measured by the KOMET instruments. The curricular and occupational validity of the four test tasks was therefore discussed by a group of Chinese teachers specialised in electro technology. As the test tasks are deduced from occupational tasks which are in accordance with professional practice, the test tasks were estimated to be valid.

In order to rate the apprentices' solutions of the open test tasks, a standardised rating based on 39 items was used. The items operationalise the eight test criteria that base on the project's competence model (functionality/operability, clearness/presentation, efficiency/effectiveness, orientation on use value, orientation

on business and work processes, environmental responsibility, creativity of solution, and social responsibility). The quality of an instrument of competence measurement depends on how much consensus there is in the ratings given by the judges. In Germany, a group of teachers who rated the test task solutions reached a sufficient level of inter-rater reliability (Rauner et al. 2008). This article focuses on the question whether it is possible to assure a sufficient level of inter-rater reliability in China.

Methodology

35 Chinese teachers and discipline leaders of electro technology from different VET schools served as judges for the 1680 test solutions. They took part in a three-day training, which followed the structure of the German judges' training. Procedure documentation consisted of:

1. A presentation of the KOMET competence model and measurement model including the different criteria and competence levels.
2. Four test tasks and their solution spaces. The solution spaces point out the aspects the judges should consider during the rating. This is especially helpful in case the judge is not profoundly familiar with the technical focus of one of the test tasks.
3. Two solutions for each test task, also used for judges training in Germany. These eight solutions were given by apprentices and can be considered as typical apprentices solutions.
4. The list of 39 items used to judge the solutions (example see Fig. 1). The 4-point scale allows a sufficient differentiation of ratings.

	Demand is...			
Functionality/Operability				
	fully met	rather met	rather not met	not met
Does the solution work?				
Does the solution represent the state of the art?				
Does the solution consider practical feasibility?				
Does the solution explain the functional relations?				
Are descriptions and explanations correct?				

Figure 1: One of eight competence model criteria, functionality/operability, operationalised by five items

The training programme started with an introduction into the competence model, the test procedure and the evaluation procedure. The items were presented in detail. As the items are formulated neither job-related nor task-related, the training especially aims at illustrating how they are applied on the four test tasks. Each judge is supposed to rate each of the four test tasks.

In order to practice the usage of the rating sheet as well as to achieve a high consensus of the judges' ratings, the judges were supposed to train rating individually and in groups. After the presentation of the first test task and the two solutions, work groups consisting of five or six people were formed. After the individual rating of a solution, the ratings were compared within the work groups. Differing ratings were analysed and the group members agreed on a common rating. Difficulties during this process were recorded. These group discussions aimed at generating a common understanding of the items and their application.

The same procedure was conducted with the second solution. Finally, the individual and group ratings were fed into the computer and were presented and discussed in plenum. The work groups reported on the difficulties during the rating process. The ratings were then compared with the ratings of experienced judges, conspicuous ratings by individual judges or concerning particular items were analysed. The presentation in plenum ensured that differences between group ratings could be analysed. Presentation of rating data permits every single judge to compare his own ratings with the other judges' ratings. Average ratings for each item and judge compared to average ratings of the experienced judges served as reference level.

This procedure was repeated with the other six solutions. Finally, the eight solutions were rated again by all judges individually.

Results

Inter-rater reliabilities were calculated to find out whether judges training was successful. As inter-rater reliability coefficient the unadjusted Finn-coefficient was used.¹ Figure 2 shows the inter-rater reliability of each of the eight solutions. Range of the Finn-coefficient is from 0 (no agreement between judges) to 1 (total agreement between judges), with values higher than 0.5 considered as satisfactory and values higher than 0.7 considered as good.

Solution code	Test task	Day 1	Day 2 (morning)	Day 2 (afternoon)	Day 3 (morning)	Day 3 (afternoon)
H0282	Signal installation	.41				.82
H0225	Signal installation	.54				.79
H0176	Drying room		.80			.84
H0234	Drying room		.75			.80
H0265	Roof window control			.84		.82
H0102	Roof window control			.82		.83
H0336	Gravel plant				.86	.85
H0047	Gravel plant				.79	.79

Figure 2: Inter-rater reliability ($Finn_{unjust}$), based on Chinese ratings

Inter-rater reliability highly improves from first to second training day (morning) (Fig. 2). The inter-rater reliability of the first solution rating ($Finn_{unjust} = 0.41$) is not satisfactory yet. The first group discussion led to a better understanding of highly differing ratings of single judges as well as of specific items. This learning effect can be seen in the improved Finn-Coefficient of $Finn_{unjust} = 0.54$. Rating the two solutions of the first test task, the judges began to rate immediately without dealing with the solution space, although this was recommended. This happened because the judges have already worked on the tasks themselves and knew the test tasks quite well.

¹ The Finn-Coefficient was selected due to the low variances of item means. As every solution was rated with 39 items and every judge of the judge team rates the solutions, a rater fixed model of reliability was chosen (cp. Shrout/Fleiss 1979) Unadjusted reliability was chosen because not every judge rated every solution.

They used their own test performance as benchmark. Thus, the judges' first ratings were based on their individual and subjective competence as teachers and their personal problem solving level. Their implicit competence model, resulting from their teacher practice, reduces vocational competence to technical knowledge. As a result, the Chinese judges rated less strictly compared to the German rating group. Moreover, the objectifying function of the solution space could not work and enhanced heterogeneity of ratings.

During the evaluation of individual and group ratings in plenum, the judges themselves analysed their rating behaviour and its reasons. They agreed to use the solution spaces in the future as a means of rating standardisation.

The rating of the next solution differed noticeably from the first two ratings. All judges began with studying the solution space, using it during rating every once a while. The results showed that this led to an increase of inter-rater reliability ($Finn_{unjust} = 0,8$). However, another effect of using the solution spaces was that the judges now rated much more strictly, because they understood the solution space as an ideal-typical solution. The judges did not consider that the solution space contains many possibilities of solving the test task and that a student's solution could be all right even in case he found only one possible solution. This misunderstanding was corrected in plenum.

As expected, the rating of the third solution showed improved rating behaviour. Inter-rater reliability reached a high level ($Finn_{unjust} = 0.84$ and 0.82), and the differences to German ratings vanished. Rating the last two solutions, inter-rater reliability remained stable. The results of the final rating of all eight solutions confirm the efficacy of the training programme.

Conclusion

Inter-rater reliability of the Chinese group of judges shows that it is possible to assure a sufficient level of rater agreement, despite possible problems arising from the transmission to another country with a different VET system.

This is possible because of the test tasks' occupational validity - experts are able to rate the tasks with sufficient agreement regardless of different national VET systems.

References

- Rauner, F., Haasler, B., Heinemann, L. & Grollmann, P. (2009): Messen beruflicher Kompetenzen. Grundlagen und Konzeption des KOMET-Projektes. Münster: LIT.
- Rauner, F. et. al. (2009): Messen beruflicher Kompetenzen. Band II. Ergebnisse KOMET 2008. Münster: LIT.
- Shrout, P.E., Fleiss, J.L. (1979): Intraclass Correlations: Uses in Assessing Rater Reliability, *Psychological Bulletin* 86 (2): 420-428.
- Zhao, Z. (2003). Berufspädagogen in China auf dem Weg zur Professionalität. Bielefeld: Bertelsmann.

Project Teaching of School-Enterprise Cooperation Based on Real Production Contract - Case Study of GTI

Zhiqun Zhao, Zishi Luo and Donglian Gu

*Institute of Vocational and Adult Education, Beijing Normal University, No.19
Xinjekouwai St, Beijing, China. 100875*

Summary: This paper is about a case study of school-enterprise cooperation through which vocational school established partnership with suppliers by purchasing their facilities, and exploited and practiced project teaching by both parties working together in developing new products. Students learned through a real work process within the school education system, acquired competence and gained relevant experiences. Besides, teachers' professional competency was developed in the meantime enterprises made profits.

Keywords: real production contract, school-enterprise cooperation, project teaching

Background

During the progression of economic globalization, manufacturing industry has become the leading industry of Chinese economy, taking up 40% of the nation's GDP (Leading Group Office of the First National Economic Census, 2005). However, the lack of qualified skilled workers has always been one of the main issues that hinder the development of manufacturing industry. The training of skilled workers in China mainly relies on vocational education offered by vocational schools and colleges. However, due to not close ties between vocational schools/colleges and enterprises, the training quality of skilled workers is unable to fully meet the needs of economic development. This is mainly reflected in the following areas:

There is a lack of a mechanism in supporting and regulating school-enterprise cooperation. Laws, regulations, and operation mechanisms have not yet been set up to promote and standardize the cooperation between vocational schools and enterprises. Research shows that many of the employers cannot afford time or efforts in systematically planning and developing their human resources. Nevertheless, while complaining a lot about the low quality of the skilled workers, they are reluctant to invest in the training of technical personnel, such as getting involved in training process, offering internship opportunities or part-time teachers, or contributing teaching facilities, etc. (Research Group of Vocational Education of the Manufacturing Industry, 2008).

There is a lack of specification in curriculum development in vocational schools. At present, the supervision departments of vocational education (Ministry of Education and Ministry of Human Resources and Social Security) and their subordinated vocational schools undertake almost all the work related vocational education, including setup of professional faculties, curriculum development, implementation and assessment. As there is not much engagement of industries, the actual needs of the enterprises cannot be reflected in vocational education. Consequently, professional competence of graduates is unable to meet the expectation of the growing business (the same as above).

In order to solve the problems mentioned above, people had explored various ways of integrating work and learning (gong xue jie he) to improve the quality of vocational education. In 2006, MoE issued a paper of Views on Improving the Teaching Quality of Higher Vocational Education. It was mentioned that work-integrated learning should be regarded as an entry point of the reform in training talents. In the same year, another document Views on Pushing up Senior Technical Schools and Technician Institutes and Accelerating the Speed of Cultivating High-skilled Personnel was issued by the former MoLSS⁵, demanding setting up new system of cultivating high-skilled personnel through cooperation between schools and enterprises. This triggered a nation-wide interest in exploring how to train up personnel through work-integrated learning. Two difficulties stand out:

Under the pressure of organizing production and fulfilling contract, enterprises are only willing to offer apprentice opportunities of simple operational jobs to students. Therefore, there is not sufficient learning value in the jobs.

Despite substantial investment by government in setting up training base on campus, there is still a gap to real production environment and to real experience of production.

We have been looking for 'Best Practice' in vocational schools throughout the country for theoretical evidence and solution. In the Pearl River Delta Region where economics and manufacturing industry are prosperous, vocational education develops fast. We chose the city of Guangzhou as the research area. Through research in documentary and recommendation by local authorities, we chose Guangzhou Technician Institute (GTI) as a sample. We found very positive evidence and relevant solutions to the problems mentioned above through assessment on teaching articles, teaching process, as well as interviews with teachers and students.

Case description

Case One: School-enterprise cooperation established with the supplier through equipment purchase

In 2006, with the support of Guangzhou government, an NC Technology upgrading project of common milling and turning machines was held by GTI. The bid winner was a large modernized enterprise namely Guangzhou NC Equipment Co. Ltd. According to the bidding, the enterprise was to supply NC system and parts for equipment upgrading to the school, to send out technicians to instruct teachers and students to support equipment installation and start-up, and to be responsible for acceptance check and after-sale service. The GTI should supply 26 common turning and milling machines, provide the venue for upgrading, and send teachers and students from relevant departments to participate in the upgrading. For the first step, teachers were sent for training in the development and production departments of the enterprise for one month. Secondly, with the guidance of the enterprise, a proper venue was identified in the school in accordance with the enterprise's standards for facilities upgrading. After that for three months the team completed the transformation of NC machines and referential curriculum and teaching materials were written up. With the cooperation of both school teachers and technicians of enterprise, an NC transformed machine and an NC milling machine were produced in 2006, another 57 were manufactured in 2007 and 2008. In 2009, the school built 5 precision NC instruments and a 5-axis centralized instrument. Hundreds of students involved in this program, experienced at the beginning the technical upgrading of common milling and turning machine, the production of precision NC turning

machine, and finally the installment and adjustment of 5-axis machining center with advanced technology, so they achieved the targets set by enterprises in machine operation and maintenance. In the meantime, teachers were granted a patent during the process of development and research of new product.

Comment: The school successfully set up contract with the enterprise by purchasing teaching equipments, and chose a good enterprise to cooperate with by means of bidding. On one hand, with the main body of the production still being the enterprise, the enterprise provided equipments, parts, and technical supports that are in accordance with industrial standards, and transferred the production site to the campus. On the other hand, with the school being the organizer of the production, production process was imbedded into teaching process. By doing this, teachers and students gained work process knowledge and accumulated working experience. From economical point of view, the GTI made the best use of government capital on teaching equipments, and the actual purchase cost dropped by 25% due to the participation in the production of the equipments. The enterprise not only got business orders, reduced input, gained economic benefits, but also managed to have qualified employees-to-be, and a platform for the R & D of new technology during the process of giving support to the school teaching.

Case two: school-enterprise cooperation program based on cooperation in R&D of new products

According to the teaching plan of the GTI, a number of intelligent and automatic control developing systems of medium and high performance were needed. However, there was neither mature product in the market, nor can enterprises develop and produce the systems independently. By sending invitation of tender, the GTI chose a small-scale but competent enterprise Ludu Park Facilities Co. Ltd as partner. Teachers of mechanical-electrical department and the technicians of the company worked together on designing and developing the LD/ SJ01A Open Information Intelligent Inspection and Monitoring System. Students took part in very step of the production. In this program, 2 patents were granted and had become a formal part in curriculum. This system has been promoted to the market as a matured product by the company.

Comment: The vocational school cooperated with a small enterprise by doing new product research together. By taking part in every step of the project, the students learned the specialized skills and finished the production task up to the technical standard of the enterprise. During the process of integrating work with learning, the students acquired comprehensive vocational competence and relevant working experience. What's more, by making the best out of their resources and the chance offered by the project, the school widened their cooperation field with the enterprise, won technical support from the enterprise, and the teachers' professional potential was developed. As for the enterprise, by making use of the technology and human resources of the school, it not only developed a new product, but also upgraded its innovation which then enhanced core competitiveness.

Summary

School-enterprise cooperation facilitated co-production of medium and high-tech facilities and creation of teaching facilities and mechanism and developed relevant courses. Through this cooperation the trading of hardware is transformed to integrated curriculum resources combining hardness with softness. This offers good examples and positive evidence for achieving school-enterprise co-operation under the present condition.

From the perspective of curriculum enrichment, the students improved their adaptability to the environment by taking part in actual operation, had a deeper understanding about the society and enterprise by working with adults, especially with technical personnel of the enterprise. They understood to some extent the environment they were going to work in, learned to solve working problems by cooperating with people from different backgrounds. For teachers, they developed their professional competence by taking part in the school-enterprise cooperation project. The school in return upgraded the teaching standard by enriching the curriculum.

Possibility of experience share

By introducing production projects or technical development projects that meet the needs of curriculum of vocational schools, the teaching process of the school is directly transferred into working process that is in accordance with technical flow. This also meets the production standards of the enterprise (Loebe & Severing 1995). Schools through management of the program, build up the capacity of its resources.

Many small and medium-size enterprises are also in great need of innovating their products by taking advantages of the social resources, hence those schools that are industrialized facilitated can be the right resources for them. The cooperation between both parties can achieve win-win and serve as the foundation of work-integrated curriculum through project teaching.

The examples of GTI of making full use of resources and facilitating teachers and students to participate in authentic production programme and work as real professionals on campus provided useful and positive experiences for vocational schools across China and for those in the countries with similar education system

References

- Zhao, Z.-Q. (2009): Guide of Integrated curriculum Development in Work-integrated Learning of Vocational Education. Beijing: Tsinghua University Press.
- Luo, Z.-S. (2008): New Chapter of High-skilled Education, Guangzhou: Guangdong Higher Education Press.
- Research Group of Vocational Education of the Manufacturing Industry. Cultivation of Technical Personnel in manufacturing Industry: Problems and Suggestions. Education Research, 2008, Volume 5, 66-71
- Leading Group Office of the First National Economic Census by the State Council. The Major Statistic Bulletin of China's First National Economic Census. Beijing: 2005/12/14
- Loebe, H., Severing E. (1995): Bildungsplanung im Betrieb. Nuerberg: bfz.

Can Apprenticeship be Innovative? Reconceptualising the Learning Journey in the Knowledge Economy

Alison Fuller and Lorna Unwin

*School of Education, University of Southampton, Highfield,
Southampton, SO17 1BJ, UK
Institute of Education, University of London, 20 Bedford Way,
London WC1H 0AL, UK*

Summary: This paper explores ways of thinking about innovation relating to apprenticeship in the light of the emergent discourse about the so-called knowledge economy and knowledge workers. The paper argues that the continuing viability of apprenticeship lies in reclaiming its power as a model of vocational learning. This means it must be released from its restricted position as an instrument of government policy within national systems of education and training. At the same time, the paper presents evidence to show that 'knowledge workers' can benefit from the same type of supportive structuring of their development and a graduated approach to their formation as experts that characterise apprenticeship as a model of learning. The paper draws on empirical case studies from England of intermediate level apprenticeships involving school leavers (in engineering manufacture and business administration) and of graduate trainees in two knowledge intensive sectors (software engineering and contract research in universities).

Keywords: apprenticeship, knowledge workers, workforce development, higher education

Introduction

This paper asks questions about the nature of apprenticeship as a model of learning (Fuller and Unwin, 1998) in contemporary economies, its position within national systems of education and training, and its relationship to higher education. It builds on other work by the authors (see, inter alia, Fuller and Unwin, 2007) in relation to the challenges facing apprenticeship programmes. Whilst the paper draws on evidence from the UK, it reflects a continued interest in apprenticeship throughout the world (see, inter alia, Onstenk and Blokhuis, 2007; Deissinger and Hellwig, 2005). The paper explores ways of thinking about innovation relating to apprenticeship in the light of the emergent discourse about the so-called knowledge economy and knowledge workers (see Brown and Hesketh, 2005; Brint, 2001). This has led to contested views of what counts as vocational knowledge and skill across sectors and, in particular those that have a service dimension. Traditionally apprenticeship has been located within a vocational paradigm and as a journey towards intermediate level expertise. The breaking down of traditional job demarcations and increasing expectations around young people's mobility and career progression pose challenges to the traditional positioning of apprenticeship within national education and training systems and outside HE. In this paper, we argue that the continuing viability of apprenticeship lies in reclaiming its power as a model of vocational learning. This will entail releasing apprenticeship from its restricted position as an instrument of government policy. At the same time, the paper presents evidence to show that

'knowledge workers' can benefit from the same type of supportive structuring of their development and a graduated approach to their formation as experts that characterise apprenticeship as a model of learning.

The nature of contemporary workplaces is characterised by uncertainty and competition between employees for permanent jobs, and the responsibilities that are falling on individuals to manage their own development and labour market position (see Warhurst et al, 2004). This means that apprenticeship is still relevant as it provides a strong concept of skill formation and personal development. However, it needs to show how that robust pedagogical and social model can adapt to the new circumstances.

Methods and research design

The paper draws on empirical case studies of intermediate level apprenticeships (in engineering manufacture and business administration) involving school leavers and of graduate trainees in knowledge intensive sectors (software engineering and contract research in universities) in England. Data was collected through interviews with managers, supervisors, instructors/tutors, mentors, assessors and apprentices/trainees, observation in the workplace context, and analysis of documentary evidence. The data was analysed using three themes derived from Fuller and Unwin's (2004) expansive – restrictive framework: organisational goals and workforce development, valuing expertise and trust, and opportunities to expand learning.

In relation to the notion of 'expansive', our use of the term is deliberate and has two purposes. Firstly, we have argued that, from a definitional perspective (and, particularly, when it is deployed in juxtaposition with the term 'restrictive'), the term 'expansive' helps capture and illuminate an aspect of empirical reality found in our case studies. Secondly, we have been increasingly concerned to understand the interaction between institutional context, workplace learning environment and individual learning, and how differentiating between approaches taken to apprenticeship might provide a window on the wider culture of learning in the organisation. Some of the data was collected as part of a much bigger study on workplace learning funded by the UK's Economic and Social Research Council between 2003 and 2008, the results of which are reported in Felstead et al (2009). Other data forms part of ongoing research on apprenticeship by Fuller and Unwin (2008).

Results

Regardless of whether they are intermediate level apprentices or graduate trainees, the individuals in our sample all began their skill formation journeys as 'legitimate peripheral participants' (Lave and Wenger, 1991). To a greater or lesser extent, they experienced and displayed characteristics of apprenticeship participants. Apprenticeship is first and foremost a model of learning for the development of what Guile and Okumoto (2007) refer to as the knowledge, skills and judgement that together form 'vocational practice'. Since medieval times, it has commonly been used to describe the journey a person takes from being a novice to becoming an expert in an occupational field. As such, the concept of apprenticeship transcends occupational boundaries and hierarchies and so is used by surgeons and lawyers as well as carpenters, chefs, actors and musicians.

Yet, despite sharing some characteristics of the apprenticeship model, the nature of our research participants' journeys varied considerably. They diverged due to the

different models and approaches to apprenticeship that they encountered. In the paper, as well as discussing their experiences of skill formation, we also pay particular attention to understanding the range of staging posts on, and exit points from, their respective learning journeys. Our evidence shows that in both the traditional apprenticeship settings and in the graduate workplaces, the organisational approaches and commitment to workforce development and the levels of understanding and expertise of employees with responsibility for supporting the apprentices/trainees played a significant role in shaping the experience. At the same time, the apprentices and trainees, as individuals, displayed different dispositions towards engaging with and shaping that experience (see, *inter alia*, Billett, 2007).

This paper challenges current assumptions that position 'knowledge workers' as autonomous, self-supporting and confident professionals in control of their own career development. It argues that, on the contrary, 'knowledge workers' can benefit from the same type of supportive structuring of their development and a graduated approach to their formation as experts that characterise apprenticeship as a model of learning (Fuller and Unwin, 1998; Guile and Young 1999; Guile and Okumoto (2007). In turn, the nature of knowledge work and the climate within which knowledge-intensive organisations operate demand that the apprenticeship model itself needs to adapt to the new conditions.

In the UK, the government-funded model of apprenticeship is undergoing yet further reform as policymakers attempt to significantly increase the number of apprentices and involve far greater numbers of employers than is currently the case. These reforms are currently being debated in Parliament during the reading of the new *Apprenticeships, Skills, Children and Learning Bill* which, if passed, will put apprenticeship on a statutory basis in the UK for the first time since 1814. At the same time, the proposals include granting the Secretary of State responsible for apprenticeships considerable new powers. Whilst the increase in interest from policymakers and continued investment in apprenticeship is welcome, this further entrenches its new identity as an instrument of government policy rather than as a model of learning. In that sense, apprenticeship is currently government-owned and directed.

The paper concludes by discussing the possibilities and constraints for innovation in apprenticeship. At the time of writing, the impact of the global economic crisis and the subsequent recession in the UK is having a negative impact on the provision of both intermediate level apprenticeships and graduate traineeships. To what extent and for how long the recession will have this impact is clearly open to question, but employers (in both the public and private sector) will be seriously considering how much they can invest in workforce development. Despite these economic realities, however, the apprenticeship model has the potential to support workforce development as part of everyday workplace activity. The paper calls for new ways of thinking about apprenticeship and its applicability in the contemporary economy and for it to be a more inclusive concept given the need for graduates as well as school leavers to have their professional formation supported.

References

- Billet, S. (2007): Including the missing subject: placing the personal within the community, in Hughes, J., Jewson, N. and Unwin, L. (eds) *Communities of Practice: Critical Perspectives*, London: Routledge.
- Brint, S. (2001): 'Professionals and the "Knowledge Economy": rethinking the Theory of Postindustrial Society', *Current Sociology*, 49/4, 101-32.
- Brown, P. and Hesketh, A. (2004): *The MisManagement of Talent*, Oxford: Oxford University Press.

- Deissinger, T., and Hellwig, S. (2005): Apprenticeships in Germany: modernising the Dual System, *Education and Training* 47 (4): 312-324.
- Felstead, A., Fuller, A., Jewson, N. and Unwin, L. (2009): *Improving Working for Learning*, London: Routledge.
- Fuller, A, and Unwin, L. (2008): Towards Expansive Apprenticeships, A Commentary for the ESRC's Teaching and Learning Programme, London: Institute of Education (to download go to: www.tlrp.org)
- Fuller, A. and Unwin, L. (2007): 'What counts as good practice in contemporary apprenticeships?: Evidence from two contrasting sectors in England', *Education + Training*, 49(6): 447-458.
- Fuller, A. and Unwin, L. (2004): 'Expansive learning environments: integrating organizational and personal development' in Rainbird, H., Fuller, A. and Munro, A. (eds) *Workplace Learning in Context*, London: Routledge.
- Fuller, A. and Unwin L. (1998): 'Reconceptualising Apprenticeship: exploring the relationship between work and learning,' *Journal of Vocational Education and Training*, 50(2):153-171.
- Guile, D. and Okumoto, K. (2007): "We are trying to reproduce a craft apprenticeship": from Government Blueprint to workplace-generated apprenticeship in the knowledge economy, *Journal of Vocational Education and Training*, 59(4): 551-574.
- Guile, D. and Young, M. (1999): Beyond the Institution of Apprenticeship: Towards a Social Theory of Learning as the Production of Knowledge, in Ainley, P. and Rainbird, H. (eds) *Apprenticeship, Towards a New Paradigm of Learning*, London: Kogan Page.
- Lave, J. and Wenger, E. (1991): *Situated Learning: Legitimate Peripheral Participation*, New York: Cambridge University Press.
- Onstenk, J., and Blokhuis, F. (2007): Apprenticeship in The Netherlands: connecting school- and work-based learning, *Education and Training*, Volume 49 (6): 489-499.
- Warhurst, C., Grugulis, I. and Keep, E. (2004) (eds): *The Skills That Matter*, London: Palgrave Macmillan.

Conceptual Change – A new Research Task in TVET

Waldemar Bauer

*Federal Institute for Vocational Education and Training (BIBB),
Robert-Schuman-Platz 3, 53175 Bonn, Germany*

Summary: Under the common denominator of the conceptual change approach to learning, several theoretical assumptions have served as a source of hypotheses and have guided rich and fruitful research agendas in science education. Conceptual change research has shown that students have intuitive knowledge or conceptions of phenomena which are different from those of scientific conceptions. This research has provided detailed descriptions and explanations of learners' difficulties in diverse areas, such as physics or mathematics. Researchers developed a sample of theories in order to explain these initial conceptions and the process of its development. Most theories are dichotomous; they divide the world into correct scientific concepts and erroneous naïve concepts. The different meanings, its element and scope of concepts within a specific context of action are usually not in the focus of this type of research. This aspect is very relevant in studying domain-specific expertise and designing learning arrangements in TVET.

Keywords: technical education, intuitive conceptions, experts' concept, conceptual change research, video survey

Introduction

For the past three decades, there has been considerable research in the area of science learning, especially in the field of conceptual change. This research has shown that students have intuitive conceptualizations of certain natural phenomena which are different from those of scientific concepts. Children already attained a common-sense understanding of everyday phenomena, also known as “initial conceptions”, “prior knowledge”, “informal knowledge” or “naïve theories”, when they first begin school (Schnotz, Vosniadou & Carretero 1999). Also university students have such conceptions after completing secondary school (Strocklmayer & Treagust 1996). In the past research of conceptual change tends to focus on identifying students' misconceptions that are erroneous from the scientists' standpoint. Conceptual change in this perspective requires the effort to replace or remove such alternative conceptions with “correct” scientific theory. Such prior knowledge may not be a part of the coherent system of scientific concepts taught in school, but they are relatively stable and resistant to change (Schnotz, Vosniadou & Carretero 1999) as they are deeply rooted in daily life experiences and are continuously supported by such experiences as a coherent explanatory structure. Nowadays research also focus on instruction in order to foster the development of apparently “correct” concepts (Müller, Wodzinski & Hopf 2004).

In spite of the advanced theoretical and methodological discussion and the number of empirical studies in science education it has to be stated that conceptual change research is not very common in the field of vocational education and training.

This paper intends to discuss the state of art in conceptual change research and its benefit for TVET research.

Theoretical background

Conceptual change research has traditionally a strong relationship to cognitive theories. Especially Piagetian learning theory has influenced many researchers in explaining a conceptual shift. One of the most prominent conceptual change theories, which correspond to Kuhn's notion of a paradigm shift or Piaget's notion of accommodation, was defined by Posner et al. (1982). There are two parts in Posner's theory. One refers to the conceptual context of the learner in which learning takes place. This is labelled as the "conceptual ecology". The conceptual ecology represents current conceptions and misconceptions held by the learner; it determines the way the learner handles old conceptions and responds to new conceptions. Therefore it serves to structure conceptual change. The other part of this theory includes a set of conditions which are required for conceptual change to occur. Successful change can only be realised if the learner is dissatisfied with current conceptions and the new concept is intelligible, plausible and fruitful.

Another prominent conceptual change theory is Vosniadou's framework theory (Vosniadou & Brewer 1992, Vosniadou 1994), which describes conceptual change as a gradual revision of mental models. Vosniadou explains that students already have naïve knowledge or initial conceptions about natural phenomena and that they generate synthetic models as a bridge between their initial framework theory and observations that do not conform to the framework. Chi (1992) uses the fundamental categories of ontology in order to determine the nature of being. Conceptual change is explained as overcoming ontological categorization errors and thus as a higher level ontological shifts.

These different theories can be summarized to "knowledge-as-theory" perspectives. These perspectives on conceptual change process have wide support within the science education community. However, several researchers have proposed opposing perspectives that characterize students' understanding in terms of collections of multiple quasi-independent elements (Özdemir & Clark 2007). It is assumed that naïve knowledge structures consist of multiple conceptual elements including, but not limited to, phenomenological primitives, facts, facets, narratives, concepts, and mental models at various stages of development and sophistication. Novices spontaneously connect and activate these knowledge pieces according to the relevance of the situation.

DiSessa's model (1993) is the most well known of the knowledge-as-elements perspectives. He proposes that the knowledge structures of novices consist primarily of unstructured collections of many simple elements so called p-prims (phenomenological primitives). P-prims are generated from a learner's experiences, observations, and abstractions of phenomena through a sense-of-mechanism that reflects our interactions with the physical world. They do not have the status of a theory because they are not produced or activated under a highly organized system, but they are loosely connected into larger conceptual networks

The conceptual change approach was the leading paradigm in science education until it became subject to several criticisms, regarding both its epistemological assumptions and its instructional practices. Firstly, it is argued that the majority of the conceptual change theories are predominately deficit-driven (Stark 2002). They are oriented on what people do not know or are not able to do. Secondly, it has been pointed out that most theoretical frameworks provide a rather simplistic view of

misconceptions, as being unitary, faulty conceptions. Thirdly, they ignore the interrelations with other concepts, as well their interaction with the situational context in which the concepts are invoked (Caravita & Halldén 1994; Smith, diSessa & Rochelle 1993). Proponents of situated learning theory argue that concepts in fact are context specific and not general. Caravita und Halldén (1994) introduced a context model. It differentiates between everyday and scientific context. Consequently a validation criterion for accurate conceptions shall be the functionality of a concept within a certain context and not the veridicality of the concept.

Conclusions

The criticism concerning the role of context and the functionality of concepts within this context is very relevant for research on domain-specific expertise and labour competence. From an empirical point of view little is known about experts' concepts, which they use in their work practice and how they are embedded in their skills and domain-specific language. We do not know what an electrician does really think about electricity, electric power, current or voltage when he or she is carrying out his or her electrical work. The answer of this question might enrich research on expertise and could provide new insight concerning the conceptualisation of knowledge in action.

Because of the gap of knowledge regarding factual experts' concepts of phenomena one can not clarify the relation (similarities and differences) between these domain-specific experts' concepts and scientific concepts. Clarifying this relation is very important for the promotion of specific concepts in TVET learning arrangements and thus a genuine didactical issue. The hypostatizing of those practical concepts (Holzkamp 1995) or theories will have a great impact on the construction of a theory for vocational and technical subjects.

With regard to the development of concepts in TVET we also do not know which initial conceptions TVET students have when starting TVET programmes, how they develop their concepts of crucial technical phenomena and which factors are influencing this cognitive process. TVET research on this issue is not established (Bauer 2006; Rauner 2007). This type of conceptual change research should not only be focused on the beginning and the end of learning processes, but the learning process itself and the role of students' conceptions in action should be analyzed. This research would be very helpful for teaching, because teacher could get information about the initial conceptions of students and relate their instructional design on these concepts.

TVET research in this field needs adequate methodology, which are predominately qualitative and ethnographical. With regard to the first research task it is recommended to analyse experts' action mastering authentic work tasks and embed narrative phases in order to find out his or her concepts using in action. It is not possible to ask directly for experts' concepts because the interviewee would tend to fall back in a student's role trying to find the correct definition of the asked concept. Hence he or she would change his context.

For studying initial conceptions and conceptual change processes several research methodologies are used. They range from psychometric tests to ethnographical or phenomenological approaches. Today video recording of classroom action is very common. Video recording enables the triangulation of qualitative case-based microanalysis of instruction with systemic collection of quantitative data of learning processes. Digitized videos of can be analyzed with special programmes (e.g. Videograph), which allows the direct coding of data. This

software enables the construction of observation categories and rating scales which the viewer can use as a measuring instrument to analyse the contents of the video.

The TVET community should promote research on intuitive conceptions of TVET students and the process of development through learning arrangements. The research could start with an international video survey in technical fields using a similar research design as TIMMS.

References

- Bauer, W. (2006): Einstellungsmuster und Handlungsprinzipien von Berufsschullehrern. Eine empirische Studie zur Lehrerarbeit im Berufsfeld Elektrotechnik. Bielefeld: Bertelsmann.
- Caravita, S. & Halldén, O. (1994): Reframing the problem of conceptual change. In: *Learning and Instruction*, 4, 89-111.
- Chi, M. T. H. (1992): Conceptual change within and across ontological categories. Examples from learning and discovery science. In: Giere, R. N. (Ed.): *Cognitive models of science*. Minneapolis: University of Minnesota Press, 129-186.
- DiSessa, A. (1993): Toward an Epistemology of Physics: In: *Cognition and Instruction*, 10 (2 & 3), 105-225.
- Holzkamp, K. (1995): *Lernen. Subjektwissenschaftliche Grundlegung*. Frankfurt a. M. & New York: Campus.
- Müller, R., Wodzinski, R. & Hopf, M. (2004): *Schülervorstellungen in der Physik*. Köln: Aulis.
- Özdemir, G. & Clark, D. B. (2007): An Overview of Conceptual Change Theories. In: *Eurasia Journal of Mathematics, Science & Technology*, 3 (4), 351-361.
- Posner, G. J., Strike, K. A., Hewson, P. W., & Gertzog, W. A. (1982): Accommodation of a scientific conception: Towards a theory of conceptual change. In: *Science Education*, 66 (2), 211-227.
- Rauner, F. (2007): Practical knowledge and occupational competence. In *European Journal of Vocational Training*, 40 (1), 62-66.
- Schnotz, W., Vosniadou, S. & Carretero, M. (Eds.) (1999): *New perspectives on conceptual change*. Oxford: Elsevier.
- Smith, J., diSessa, A., & Rochelle, J. (1993): Misconceptions Reconceived: A Constructivist Analysis of Knowledge in Transition. In: *The Journal of the Learning Sciences*, 3 (2), 115-163.
- Stark, R. (2002): Conceptual Change: kognitivistisch oder kontextualistisch? In: *Forschungsbericht 149*. München: Ludwig-Maximilians-Universität, Lehrstuhl für Empirische Pädagogik und Pädagogische Psychologie.
- Stocklmayer, S. M. & Treagust, D. F (1996): Images of electricity: how do novices and experts model electric current? In *International Journal of Science Education* 18 (2), 163-178.
- Strike, K. A. & Posner, G. (1992): Conceptual change and science teaching. In: *European Journal of Science Education*, 4, 231-240.
- Vosniadou, S. (1994): Conceptual change in the physical science. In *Learning and Instruction*, 4 (1), 45-69.
- Vosniadou, S. & Brewer, W. F. (1992): mental models of the earth. A study on conceptual change in childhood. In: *Cognitive Psychology*, 24, 535-585.

Work - based Learning in Apprenticeship - Reflections on Irish Cases

Barry Nyhan

*Freelance consultant in VET and HRD, Dublin, Ireland and Visiting Fellow,
University of Bremen, Germany*

Summary: This paper presents the reflections of company management and work project supervisors in four Irish mechanical and electrical engineering companies, on apprentices' work-based learning. The companies demanded a good foundation work ethic as an entry requirement to an apprenticeship. During the early stages of apprenticeship, they placed a strong emphasis on enhancing this work ethic, including becoming an active member of one's team. The learning approach followed the classical 'learning by doing' pattern along progressive human development ('developmental learning') lines. However, a strong emphasis was placed on apprentices being able to explain the reasons why they approached tasks in the way they did. Apprentices followed the training programme and related assessment tasks laid down by the national training and employment body - FAS. However, work performance and learning performance were evaluated together in a holistic perspective by their supervisors in line with the project work tasks. The supervision and development of apprentices was just an aspect of the work project supervisors' role, who saw their primary role and source of identity and personal fulfilment being work project managers. While they found the guidance of apprentices rewarding and enjoyable they did not wish to become more involved in training activities that would take them away from challenging, and ideally, new project work. They were 'doers' who undertook training rather than aspiring professional trainers.

Keywords: apprenticeship, work-based learning, on the job learning, apprenticeship supervisors.

Introduction

Work-based or on-the-job learning is at the heart of apprenticeship. But, what are the key ingredients of this learning and what are the conditions that make for effective work-based learning? When former Irish apprentices were asked to comment in a FAS survey about the quality of their on-the-job learning, the vast majority of them stated that they were very satisfied with it and with their supervisors who had responsibility for moderating this learning (FAS, Conway, 2007). However, commentators (Ryan 2005a, 2005b and O'Connor 2005, 2006) who studied the Irish apprenticeship system expressed concern about the quality of work-based learning.

This paper presents the results of a small pilot enquiry that sought the views of company managers and apprentice supervisors about what goes on in work based (on-the-job) learning and in particular what conditions make for effective work-based learning. It is based on interviews with company training managers and worksite

apprenticeship supervisors¹, who have responsibility for coordinating and monitoring on-the-job training of apprentices, in four Irish mechanical and electrical engineering companies².

Conceptual framework for analysis of work-based learning – concept of ‘developmental learning’

The conceptual framework used for analysing these companies draws on the joint work of those, including the author, on the concept and practice of a ‘learning organisation’ (Nyhan et al., 2003). Building a learning organisation is about organising work processes and work relations in such a way that work situations become occasions for learning. This means that the content of work is: a) sufficiently challenging to engage workers’ interest and commitment; b) workers are given an appropriate and sufficient degree of responsibility to complete work tasks on their own; and c) they are provided with an appropriate amount of guidance and support.

In particular the notion of ‘developmental learning’ activities which form foundation blocks for building learning organisations, is drawn on in this study (Ellström, 1992; 1997; 2003). Work that provides opportunities for people to grow and develop can be called ‘developmental work’ which in turn gives rise to ‘developmental learning’. In other words, ‘developmental work’ stretches people’s potential thus leading to their human and competence development³.

Results of the enquiry

Role, status and competence of craftspersons

With regard to the supervision of apprentices, the work place supervisors saw this as one of their roles but not their defining role. Their primary role was project management in their craft field, continually taking on new challenging projects and thus expanding their skill range. If they distanced themselves from projects they felt they would lose their skills. Company managers were of the view that the project managers who had a greater mastery of their craft and were better project managers were also better at supervising apprentices’ learning.

Beginning of apprenticeship process - Solid ‘work and learning ethic’ foundation required

One of the companies had very strict entry tests and qualification requirements, while the other three had a policy of giving the prospective apprentices a three to six months trial period in which they were assessed on their work discipline, motivation,

¹ The author would like to thank the company representatives who took the time to provide these interviews and the Irish Training and Employment (FAS) personnel who helped to set up these interviews

² This enquiry is a follow up to a paper, describing the Irish apprenticeship system, presented by the author at the first INAP conference in Vienna in 2008 (Nyhan, 2008).

³ Very much in line with the thinking of Ellström, Fischer (2003) identified the following criteria of an organisation’s work and learning environment that needs to be in place to promote ‘developmental learning’. These are:

- a) workers receive immediate feedback on work results; b) the principles of self-organisation and self-control are in operation;
- c) work and learning are integrated;
- d) sharing knowledge and experience takes place within the company;

attention to deadlines, listening ability, time keeping, enthusiasm, areas can be grouped under the heading of 'work ethic'.

Integrating the apprentices into a work team – becoming a member of a 'community of practice'

The workplace project supervisors sought to instil a capacity for actively observing what was going on, understanding what the total project was about and anticipating the needs of the craftsperson(s) they were accompanying for materials or tools. It was also about asking appropriate questions and being alert. This active socialisation process is about learning to become a member of a 'community of practice' as described by Lave and Wenger (1991).

Having spent the first 12 weeks in learning to become a member of an adult work team in a specific craft culture on a work project, the apprentices then moved on in phase 2 to their off the job training in a FAS (Irish Training and Employment Authority) training centre for 22 weeks. While the FAS phase was commented on very favourably by the company managers and project supervisors from a skill development point of view, however, due to the fact that the apprentices were away from the company for so long, they felt that they had lost their work ethic by the time they returned. It was stated that in the FAS training centre, where they were grouped with apprentices from other companies in an environment not too dissimilar to their secondary they reverted back to the role of being students in a schoolish environment rather than being young adults in an adult work environment

The uniqueness and intensity of learning in real work situations

In observing the apparent simplicity of a 'learning by doing' methodology one can overlook the delicate interactions between the learner, the tutor and the task in these situations. The greater intensity of the learning in doing a real task when compared with learning about the same task in a detached school environment was illustrated by a project supervisor who had spent time both as a teacher/trainer of apprentices in a training centre setting but also as a workplace apprentice project manager and apprentice supervisor. He related that 'in the aircraft hanger environment when one is fitting a sensor, because of the seriousness of the situation, I need the apprentices to be watching my back. There we are more like colleagues on a team, whereas in the classroom in dealing with a similar task we are on different sides. I'm trying to stay ahead of them and they are trying to catch me out. School is very stressful for the teacher because one struggle to stay ahead of the posse the whole time but in the aircraft hanger because of the seriousness the situation, the apprentices are part of the team with me.'

Ensuring that learning is taking place

Despite the practical orientation of 'learning by doing' expounded above, all of the interviewees stressed the importance of apprentices being able to go below the surface and articulate the reasons why a task was approached or should be approached in such a way. This kind of reflection pervaded the whole of the job apprenticeship training programme. Apprentices were constantly requested to engage in mental mapping and problem solving exercises in describing the different permutations of tackling a problem this way or that. This was both a continual evaluation of an apprentice's progress but also a crucial aspect of embedding the learning. In this holistic learning and evaluation environment, feedback was provided regularly. A huge emphasis was also placed on developing apprentices' capacity for self-evaluation and self-criticism.

References

- Ellström, P-E (1992) *Kompetens, larande och utbildning i arbetslivet: problem, begrepp och teoretiska perspektiv*. (Skills, learning and education in working life: problems, concepts and theoretical perspectives.) Stockholm : Publica.
- Ellström, P-E (1997) The many meanings of occupational competence and qualification. *European journal of industrial training*, 1997, 21, 6/7, pp. 266-274.
- Ellström, P-E (1997) Developmental learning – a condition for organisational learning. In Nyhan, B.; Kelleher, M.; Cressey, P; Poell, R. (eds.) *Facing up to the learning organisation challenge – Volume II: selected European writings*. Luxembourg: Office for Official Publications of the European Communities. (Cedefop Reference Series).
- FAS /Conway, S. (2007) *Apprenticeship follow-up survey: the views and experiences of 1999 registrants*. Dublin: FAS.
- Fischer, M. (2003) Challenges and open questions raised by the concept of the learning organisation, In Nyhan, B.; Kelleher, M.; Cressey, P; Poell, R. (eds.) *Facing up to the learning organisation challenge – Volume II: selected European writings*. Luxembourg: Office for Official Publications of the European Communities. (Cedefop Reference Series).
- Lave, J.; Wenger, E. (1991) *Situated learning : legitimate peripheral participation*. Cambridge: Cambridge University Press
- Nyhan, B. (2008) Creating the social foundations for apprenticeship in Ireland, Paper presented at the first INAP conference, Vienna, 2008.
- Nyhan, B.; Cressey, P.; Tomassini,.; Kelleher, M.; Poell, R. (eds.) (2003) *Facing up to the learning organisation challenge – Volume I ; Key issues from a European perspective and Volume II: selected European writings*. Luxembourg: Office for Official Publications of the European Communities. (Cedefop Reference Series).
- O'Connor, L. (2006) Meeting the skill needs of a buoyant economy: apprenticeship - the Irish experience. *Journal of Vocational Education and Training*. Vol. 58, No. 1, pp. 31-46.
- O'Connor, L. (2005) A socio-technical analysis of apprenticeship in Ireland – a case study of the construction sector. In O'Connor, L. and Mullins, T. (eds.) *Apprenticeship as a paradigm of learning*. Cork: Cork Institute of Technology.

Co-operation of School and Enterprise: The Case of BITC Beijing

Ludger Deitmer Lars Heinemann and Mingying Xu

University of Bremen

Beijing Academy of Educational Sciences Institute of Vocational and Adult Education

Summary: This article is dealing with two facets: First of all it discusses the experiences made by applying participative evaluation to Chinese pilot projects on the co-operation of School and Enterprise. Here, usually benchmark and distance oriented evaluation approaches are practised and it is the question, whether formative self evaluation approaches have a value for the Chinese stakeholders. At the beginning of the article we explain the reasons for this new co-operation policy. How is co-operation of school and enterprise undertaken in a particular case, here a technical college in Beijing? Then we present the tool in its design and criteria and show some results of an evaluation session. Is it possible to start an effective discussion under the stakeholders involved in this co-operation project: *the government, school leaders, company managers and last but not least the students and ordinary teachers*. Does this collaborative learning allow better amalgamation of practical and theoretical learning? In the final part, prospect and limits of the new assessment approach on the quality of co-operation activities across institutions is discussed.

Keywords: Co-operation of learning venues, practical and theoretical learning, self evaluation strategies, local Chinese policy on improving vocational education and company training

Introduction

Because of the predominant interest of policy and parents towards the academic track and its highly prestigious university education in China, the vocational track was falling behind for a long time. Since 2002, the vocational track has become a politically accepted system pillar within the Chinese system together with general and academic education and is receiving much higher attention. Vocational Education in China has a clear focus on full time schooling. There is a “magic triangle” within the vocational schools: *the class room, the in-service training laboratories as well as the student boarding house* that typically a Chinese TVET student has to follow. In order to modernise VET, one has to reconsider the roles schools and enterprises play in China's VET system, first of all in terms of co-operation between the different learning venues. This article is studying this development and looks at formative forms of (self-)evaluation management tools that can provide deeper insight into the main success criteria influencing the development of good co-operation between the different learning venues of VET schools/ colleges and local enterprises.

Methods and research design

Many practical questions have to be managed by the schools trying to closer co-operate with enterprises because this co-operation strategy is rather young. The Chinese system does not rely on integrated duality, but consists of two years at VET colleges plus an additional year in enterprises. The Chinese government has the

intention to improve workers' skills in terms of work process competencies. Such competencies can be better developed in real work situations in-company. Therefore deeper connection of school and industry is called for in order to develop a new mix between theoretical learning in the school lab learning environment and practical learning at the work place. Here, the schools need network evaluation tools which help them to assess the quality of the partnership. The question is, what kind of arrangements may help to develop a good co-operation practice of different actors involved in regional VET network: *teachers, trainers, apprentices*.

By mutual co-operation between the University of Bremen, ITB and the Beijing Institute for Vocational Education (IVAE), intensive teaching and training on new methods on self evaluation was launched at the side of different VET Schools and colleges of Beijing area.

The method to evaluate these co-operations was the ERC Tool. The ERC Tool (Evaluation of Regional Cooperation between VET school and local companies to enhance work process related learning and cooperation) uses a focussed group discussion with representatives from schools and local companies. In an evaluation workshop, key actors from school and company are brought together enabling both company and school representatives to reflect about their actual co-operation practice. The people at the table do an assessment of their co-operation by making the convergent and divergent views about the collaboration activities clear. The evaluation design follows four principles:

- Both school and company partners can express their individual rating of the quality of the cooperation and jointly discuss how well the actual co-operation between company and school works according to various criteria (see below). This can help to find out possible improvements of the collaboration.
- In order to provide a fair and transparent evaluation session, an external moderator team is active. The moderator's role is to implement the self-evaluation process in a systematic way and to moderate the discussion in such a way that all persons get a voice and can express their wishes, needs and assessments.

It is important that the discussions are not just used to reach a final assessment of the co-operation status but also to enable trainers and teachers to understand more deeply their position towards the co-operation of company and school. Altogether, an evaluation session using this tool may last three to four hours. The most important design element of the ERC tool is a criteria-based questionnaire. The criteria were selected on the basis of innovation theory research literature (Deitmer, Heinemann, et.al., 2003, p. 137-170) and deal with the following five topics: Goals, resources, project management, partnership development and communication/learning.

Goals: aims of the cooperation (1)

The goals of a network may not be completely defined at the beginning stage of the partnership, but a good mutual understanding of and agreement on goals is crucial for the success of the co-operation. Sub criteria here are whether the collective and individual goals are clear, realistic and receive support by the management of both the school and the enterprises.

Organisation and Management: organizing the cooperation (2)

This criterion looks at the different types of resources that should be available to a partnership between schools and enterprises. The process of managing the partnership is broken down into three sub-criteria: clear allocation of tasks, fair

distribution of work and clear rules and procedures. The effectiveness of internal and external communications is also evaluated under this main criterion.

Development of the co-operation partnership: implementation of the co-operation (3)

This criterion is covering aspects which are necessary to guarantee a good throughput of the co-operation programme. It covers the development of trust which should allow the ability to agree on an effective co-operation and also a continuous improvement of the co-operation during the partnership.

Effects of the co-operation: student skill improvement, teachers' competencies, enterprise benefits (4)

This criterion brings together the following sub criteria: encouragement of learning both for students and teachers and an improvement of innovation competences. Good internal communication is of crucial importance to overcome barriers and warding off uncertainties. As innovation processes are learning processes, actors in a learning partnership must be willing to share their knowledge and learn from each other.

Dissemination of the co-operation practice and further development (5)

This criterion looks at the attractiveness of the co-operation model and whether it can stimulate interest also from other regions and schools as well as from other companies.

Results

In a one-day evaluation workshop, representatives from the BITC (school directors and teachers involved in the company cooperation), another college (Beijing Polytechnic College) as well as managers from three co-operating IT companies came together. The intention of this (self-) evaluation meeting, which was hosted and moderated by an external TVET Institute (IVAE) at the Beijing Academy of Educational science (BAES), was to evaluate the current co-operation situation and the status of co-operation improvement.

Weighting: What are the most important criteria for the individual actor from school and enterprise?

The third and the fourth of the main criteria asking for the implementation and effects from the co-operation activity under school and enterprise partners were weighted as the highest (30%) and on the same level; the other three criteria between 12 (criteria on *goals* and *dissemination*) and 16 % (criteria on *management of the cooperation*). All actors see the execution and the immediate results from the cooperation plan as the most important ones. The basic aims of the co-operation seem to be rather clear to everybody at the table while the project is already running for three years.

Assessment of criteria: How good have the criteria been met by the actors?

When we look at assessment, the scoring results are much higher for the first two criteria, whereas the criteria 3 and 4 are seen much more critical. The dissemination criterion is scored lowest and is not in the focus of the co-operation activities of both the school and company. Criteria 3 and 4 vary between 5 and 8 points on a scale from 1 to 10. Somehow quite satisfactory, but the opinions on how good the plan progresses differ quite considerably. The teachers see the co-operation more critical (scoring figures around 5) as the external evaluators (around 6 to 7) as well as the

companies (which are the group with the most positive scores by not less than 7 points).

The teachers see time resources as critical as well as that the co-operation plan is not well understood amongst all teachers; here motivation is lacking while teachers see the extra efforts they have to deliver while possible benefits remain unclear. For the companies, it is not always clear who can decide something, decision making can be too slow, and a good understanding about industrial practice is sometimes lacking. There is a necessity for them to invite teachers for more visits into the companies to study the work places the students will have to work on and suggest also internships for the teachers

The cost side is problematic as well, because such a work-based learning approach is much more expensive than teaching by books in the classroom as the preliminary orientation for teachers and students. It gets clear in the discussion that such a plan is cost-intensive while in every area new ways are taken which sometimes result into more work and time invested to find out the best way for the co-operation.

Chinese reflection on this evaluation approach: ERC Tool

The Beijing Polytechnic College used the evaluation concept to evaluate their project-based co-operation activities with local industries. They reflected their experiences with this tool and gave an impression whether the tool meets its targets.

It became very clear that the criteria used with the method must be well understood by all evaluators and that it may take time to discuss them.

During the evaluation, all participants shall be guaranteed by the moderator that everybody can express his position and the reasons for his individual scoring. This should happen openly without fear of punishment. In any case it is good to have enough time to explain the notes.

The evaluation results shall be systematically analysed so all the different view points are taken into account to reach a deep understanding for the co-operation network of enterprises and school to be evaluated.

The evaluation seminar at BITC (BITC 2009) reflected on the value of the ERC for identifying strength and weaknesses in their co-operation as well.

In their reflection about ERC, the colleges came to the conclusion: "By using ERC methodologies we as teachers moved from being an object of evaluation to a subject of evaluation". This participative evaluation method can support the motivation of all project stakeholders to introduce criteria carefully and that there is enough time to communicate about scoring results and the reasons behind the figures.

What is problematic still in the use of ERC tools within this cooperation project?

1. The documentation of the evaluation session shows that a lot of the suggestions for improvement and identification of malfunctioning elements are rather general: *We need to complete the teachers training plan and enhance teachers' practice skills and new teaching method the training. Change teachers' way of thinking to promote the education mode carrying out according to the complete work process in the study field. A similar expression: We need to perfect and better plan the entire program, and to push forward the entire cooperation system as a whole to raise the effect of cooperation between school and enterprise* (BITC 2009).
2. Based on the diagnosis done, it is important that other ways of doing the things in teacher training are tried out and that the plan for this needs a change. There is

the danger that with an extensive list of more general recommendations too little happens afterwards.

3. Based on the experiences of other applications of such participative tools (Deitmer, Heinemann 2009), it is necessary not to forget the third step of the evaluation process of the ERC Tool. After the first diagnosis meeting (the evaluation workshop) and secondly the analysis of the material, the moderation team should hold a perspective meeting (the third step of the process) in which the results from the workshop are presented and discussed. This is done in such a way that stakeholders and evaluation participants can develop enhancements and define management activities which are valuable steps to overcome the deficits and dysfunctions within the co-operation. The goal of that activity definition process is to overcome the shortcomings within this cooperation project that were found during the diagnosis meeting.

References

- Deitmer, L., Heinemann, L. Evaluation Approaches for Workplace Learning Partnerships in VET: How to Investigate the Learning Dimension? (2009) In: Marja-Leena Stenström & Päivi Tynjälä (Ed.) TOWARDS INTEGRATION OF WORK AND LEARNING, Strategies for Connectivity and Transformation, Dordrecht: Springer International
- Deitmer, Ludger. (2009) Programme Evaluation. In: Felix Rauner, Rupert McLean (Eds.) Handbook of Vocational Education Research. Dordrecht: Springer International
- Greinert W. D. (1994) The German system of vocational training. History, Organization, Prospects. Baden-Baden: Nomos.
- Rauner, F., Zhiqun Zhao (2009) Berufsbildung in China. In: Bertelsmann Stiftung (Hrsg.) Steuerung der beruflichen Bildung im internationalen Bereich, Gütersloh: Verlag Bertelsmann Stiftung
- Sloane, P. (2004). The application transfer between Schools and Enterprises in the German Dual System: putting it into practise. In: Regina Mulder & Peter F.E. Sloane; New Approaches to Vocational Education in Europe – the construction of complex learning-teaching arrangements, Oxford: Symposium
- Zhiqun Zhao, (2003) Berufspädagogen in China auf dem Weg zur Professionalität, Reihe Berufsbildung, Arbeit und Innovation, Bielefeld: Springer
- Beijing Information Technology College (2009); The Participative Evaluation Meeting Report on the Cooperation between School and Enterprise for the Information Technological Teachers Training Bases in Beijing Information Technology College; Beijing unpublished manuscript

To Earn or to Learn? Identity Implication of Microtransitions from Failure to Success in Working Class Adolescents implied in Innovative Vocational Training

Laura Bonica and Viviana Sappa

*Department of Psychology
University of Torino, Via Verdi 10, Torino, Italy, 10121*

Summary: This paper proposes a new approach to studying vocational identity, with the aim of overcoming some ambiguities (dichotomy between study and work and the weak motivational orientation of the young people who choose vocational schools) which, especially in Italy, weigh upon the definition of vocational paths. Specific methodological options and tools were defined following 500 working class youths involved in a microtransition from school failure to success in two excellent training centres in the metal mechanic field. Vocational identity emerges as a cultural and dynamic process that was built in the relationship between subject and the different implied contexts (school, families and work) and which needs to be supported by the perception of a setting that valorises the cognitive implication of the vocational learning and promotes self-efficacy, and learning commitment as a “shared” and credible challenge.

Keywords: vocational identity; school-to-work transition; perceived quality of the learning setting; self-comparison between contexts over time.

Theoretical framework

In Italy vocational choice is offered by both the national and the regional education systems, it is chosen overall by lower social classes and it is often considered as synonymous with a lower level of learning, and recommended for students who obtain the poorest grades at school (Pombeni, 1993; Bonica, 2007). An implicit dichotomy between “learning” and “working”, “head” and “hands”, seems to be at the root of a substantial downgrading of the process of vocational training starting at institutional level, often attributed to the character of the students themselves: the choice of vocational paths is interpreted as an avoidance of learning tasks, a desire for immediate autonomy. However, the characteristics of vocational learning contexts have rarely been questioned in relation to these students’ motivational orientation, despite the recognised “excessively theoretical” nature of Italian schools (Bottani, 2002). Given this ambiguity it is difficult to ascertain if the working class adolescents choosing and dropping these schools (20-35%), must be considered at risk because they are mainly motivated *to earn* as soon as possible, at the cost of inhibiting exploration and greater ambitions, or rather they would like *to better learn* a job, but the cultural model adopted by the school left did not fit with this aim (Bonica & Sappa, 2006, 2008). Starting from this background, we believe that vocational identity development (Erikson, 1968; Heinz, 2002) must be addressed within a non-dichotomized conception of learning both in and outside of school (Sennet, 2008; Resnick, 1987; Engestrom, 2001; Gardner, 1991; Pontecorvo et al., 1995) and adopting ecological research approaches (Bronfenbrenner, 1979; Bateson, 1972)

that give greater visibility to the dynamics of interaction between subject and context (Bonica, 2008). The aim of this paper is to propose a new approach to studying vocational identity, starting from a pilot study designed on the basis of the theoretical and methodological premises described above.

Research design option

Our pilot study, starting in 2000, involved 503 adolescents and young adults (15-21 years old, 89% male) belonging to working class families of Turin, who dropped out of the education system after several failures, then attended, and successfully completing, the same kind of studies (metal mechanic field) in two training centres¹. Several tools (Fig.1) were used to collect data longitudinally both during their experience of training and in the subsequent moment of transition after getting the qualification. On the research design level, two specific methodological options were valorised:

- 1) The opportunity of comparison among different contexts/models of teaching-learning, interpreted as a *transformation experiment* (Bronfenbrenner, 1979). The biennial courses were organized by two excellent centres of vocational training, one offering jobs (CFPA, 261 subjects), the other not (CFPR, 242 subjects), and both characterized by innovative learning practices in which theory and practice were integrated in a contextualized conception of knowledge (Gardner, 1991; Resnick, 1987; Collins et al., 1989), such as *learning by doing* and *cognitive apprenticeship*, with evaluation of practical skills and not only theoretical knowledge (Ajello, 2002). This is in *discontinuity* from what they experienced in the previous and more traditional educational contexts they come from².
- 2) The adoption of a *multi level reflexive approach* based on *self comparison between contexts over time* (Bonica, 2008).

Personal meaning and constructs that emerge from comparison of past and present experiences provide a wider framework that allows the student to view both experiences “better”. Emotional-cognitive mechanisms (for example, surprise) stimulate the opportunity to make comparisons (Sclavi, 1989; Bonica, 2005); and contrasting situations are believed to encourage subjective reflection on experiences and causal exploration (Weiner, 1985). In this perspective, two narrative instruments proved to be particularly useful: a) “diaries of surprise” in which subjects were asked to write freely about whatever surprised them in the new experience; b) in-depth biographical interviews on their learning experiences.

¹ The courses consisted of a total of 2400 hours (1600 in the workshop and 800 in work experience), occupying 8 hours per day.

² Also the most recent IARD survey (3rd survey, in press) on the conditions of teachers shows a prevalence of traditional pedagogical approaches, generally based on frontal lessons, within the national education system, including vocational schools.

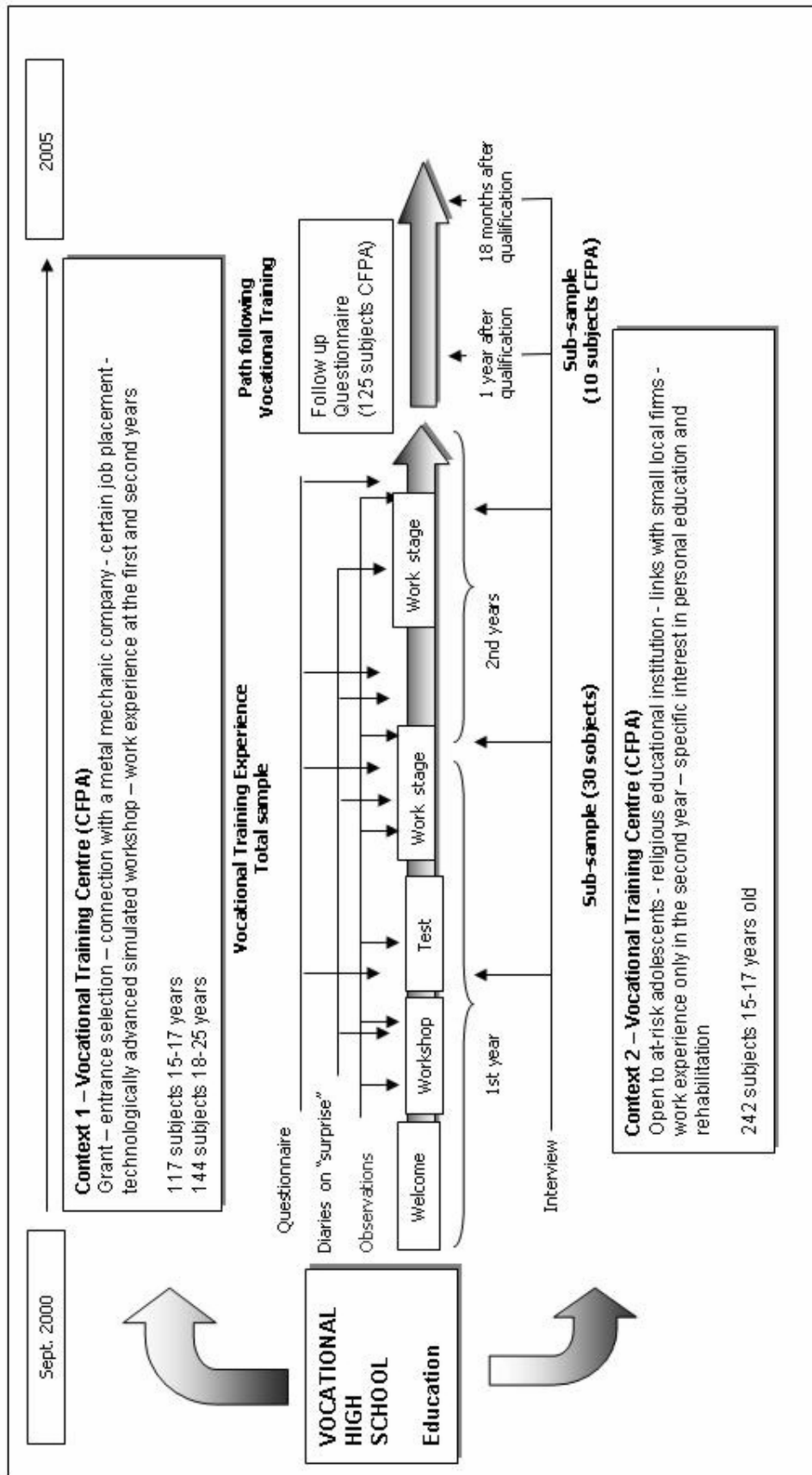


Figure 1: Research design

Comparison as a minimum unit of analysis is also expressed in a series of items regarding the perceived quality of the learning experience (Bonica, 2001), in which the students were asked to compare their personal scholastic experiences on the basis of how many times in both the training and the previous school contexts they had certain experiences³. Data analysis, using qualitative and quantitative procedures and integrating the various instruments described above, has been presented in various publications (Bonica, 2005, 2007, 2008; Bonica & Sappa 2005, 2006, 2008; Sappa, 2006). Here we report the most salient findings in relation to the vocational identity construction processes, from the point of view of research, educational practice and institution and from the perspective of the same students, in terms of new identity positioning.

Results

Regarding the role of research, the image of “weakness” that the literature attributes to these youths could be challenged on the basis of the identity “outcomes” that can be traced in this microtransition. From an initial tendency to avoid learning (73% failed at least once, 72% attributed this failure to a lack of interest in studying) these students proved capable of perseverance and commitment until they achieved success (85% promoted, 77/100 average marks of qualification), showing a motivational orientation (82% chose this school to better learn a job vs 68% to work as soon as possible)⁴ and self-definition (32% define themselves as student and worker, 47% as student and only 18% as worker)⁵ in which learning and work found a degree of integration leading to a new attitude to education and a broadening of aspirations (75% claimed they wanted to resume their studies) which, for some of the subjects, were translated into further years of study (40% of the CFPR group enrolled in the 3rd year of specialisation)⁶.

Regarding the role of institution in realizing optimal conditions of subject-context relations (best practices), the comparison between perceived learning settings highlights the relevance of founding a vocational identity construction on a significant cognitive involvement, an understanding and support from teachers, a sense of sharing and belonging, and a stronger correspondence of these aspects with

³ The question was: **How often do you...** (in the two different contexts) a) Feel afraid to ask for explanations?; 2) Not succeed in understanding the explanation given?; 3) Feel welcome?; 4) Put what you have learned into practice?; 5) Feel worried and take care not to miss information?; 6) Feel stressed but satisfied?; 7) Ask yourself if it really makes sense to be there?; 8) Feel oppressed by the thought to having to go?. Range of answer; never (1), sometimes (2), often (3), always (4).

⁴ for the young people it was more important to “learn a job” than to “work as soon as possible” ($t=14,309$; $p<.005$)

⁵ In particular, at the end of the CFPA courses, where a job was guaranteed, the percentage of students defining themselves as both *student and worker* rises to 43%, while those defining themselves as only worker falls to 15% and this is especially interesting if we consider the fact that the time for entering the labour market is drawing near.

⁶ The effective continuation of studies after the qualification concerned mainly the youths who had the opportunity to continue within the same context (CFPR), whereas further educational aspirations were harder to realize for the CFPA students, who were not offered this opportunity and whose only option was to return to the national educational system, but without recognition for the two-year training course completed. Only 8.2% of these actually resumed studying, and the testimony gathered in the biographical interviews with the subsample show the strong effect of these institutional constraints (in addition to the difficulty the young people had in obtaining permission to attend evening classes as well as work), reinforcing the dichotomy between school and work in discouraging the young people from continuing their studies (Sappa, 2005).

motivation to learn a trade (Bonica & Sappa, 2006)⁷. The students perceived that they were part of a “shared challenge” in which interest and faith in the possibility of their learning (see note 7) were shared within a relational frame in which the teachers’ willingness to “*keep explaining until everybody understands*” is proof. In addition, the use of teaching practices that emphasise contextualised learning, without disengaging “doing” from an intense cognitive investment (“knowing”), contributed strongly to perception of a setting that promotes self-efficacy and commitment toward learning, congruence between the evaluation of teachers or tutors and self-evaluation, and visibility of objectives connected with the job contexts (Ex.1,2).

Ex.1 “Here, they explain to you first what you have to do and then you have to put it into practice. It never happened that I didn’t understand”.

Ex.2 “In our previous school, when I made a mistake I gave up immediately...since attending this school I realized that I have to use my head more instead of setting my hands to the task straight away. Now they [the teachers] have taught me how to think”.

Finally from the perspective of the students, this type of experimentation also made possible new identity positionings. They were encouraged to adopt a more active, aware and realistic attitude towards possible different transitional behaviours, and to be more open to emancipatory trajectories. They involved themselves spontaneously in new tasks, and some planned to resume their studies⁸. By effectively overcoming the barrier between “head” and “hands” that they were trapped behind, the young people were able to reappraise themselves as being capable of learning in a responsible and expert way (Ex.2). This reappraisal was supported by the presence of professional adult role models who, although they were involved in manual work, represented an “emancipation” in terms of specialised skills and culture (the trainers and tutors are described by some of the young people in the interviews as workers who know how to “speak” as well as how to work, Bonica & Sappa, 2008⁹). Finally, the redefinition of a more competent self in adolescents of working class origin

⁷ On all the items relating to the comparison of perceptions of setting (see note 3) there are significant differences in averages ($4,9 < t < 11,5$, $p < .005$). The set of items was further subjected to factor analysis, and subsequent correlation of the observed factors with motivation to learn a trade. In contrast with the youths’ previous experiences, perception of the training experience was characterised both by a greater integration of factors, and by correlation between these factors and the motivational indicator. Supporting the reciprocity of expectations are numerous personal accounts, collected as narrative material (Bonica, 2005, 2008; Bonica & Sappa 2006): **Ex.1a** “*I was really surprised by the warm welcome we received on the first day. It seemed as if they really wanted to get to know us and to help us get ahead in the job we had chosen*”; **Ex.2a** : “*I imagined a normal school...but here they’ve actually invested in us students. You can really see that they want everybody to understand, not just the grade.*”

⁸ Examples of reinforcement of personal agency emerged from the involvement of 93% of course participants in the voluntary preparation of a report on the work stage, over 30 pages for 30% of the students. Further evidence of improved strategic planning skills comes from accounts such as these, collected during the training experience: **Ex.3a** “*I plan to stay here [...] then I’ll look for something better[...]and in the meantime I’ll get my diploma. It’ll be hard but I have to do it [...] it’s hard, but what I didn’t do before I’ll do now*” and from narratives like these, collected a year and a half after the qualification: **Ex.4a** “*(in the vocational training) I also learned to think that anyhow if I see something that is hard at first, then when you learn it keeps getting easier, and this changed me because I had always been afraid of getting started and also afterwards because “what if I can’t manage”[...]whereas now I understand that if the first time is difficult then if you keep going it gets easy*”.

⁹ An example of recognition of the tutors’ competence, not only specific but also cultural, emerges from this extract: **Ex.5a** “*With the tutors it was one big family...they were very competent and sociable. They had told us (the teachers) that we would be supported by people who were competent in their field and who didn’t only know what to do, but also how to talk*”

seems capable of producing a synergy of meanings in the family context as well, whose positive effects are shown in new forms of dialogue, inspired by greater trust and reciprocity between children and their parents (Bonica, 2008). In the following example, this virtuous circle emerged in the form of gratitude and pride, because it enabled more equal roles to be established within the family:

Ex.3 "In the family we were sitting at the table and discussing PLC [Programmable Logic Controller, a microprocessor-based industrial control system] and I started to explain to my mother, father and brother...the lecture took half an hour ... I felt a little prouder and happier to attend this school because it gave me another chance at home too".

In conclusion, we believe that the aspects highlighted constitute, particularly with reference to the specific cultural features of this population, important elements in order to study and support in a better way the process of constructing vocational identity overcoming the ambiguities described above. The theoretical and methodological choices appear to have been a good point of reference for that. Finally, the study is being extended to populations involved in other trajectories, including other professional profiles and a female population (Bonica et al., 2007; Bonica & Sappa, 2009; in preparation).

References

- Ajello, A.M. (2002) (Ed): *Orientare dentro e fuori la scuola*. Roma: Carocci.
- Bateson, G. (1972) tr. it.: *Verso un'ecologia della mente*. Milano. Adelphi, 1976.
- Bonica, L. (2001): *Io e la transizione scuola-formazione-lavoro*, Questionario. Dipartimento di Psicologia, Laboratorio di Psicologia dello sviluppo, Università di Torino.
- Bonica, L. (2005): "Credevo che" ... Significati dell'incoraggiamento nei discorsi di adolescenti in transizione tra la scuola e la formazione professionale. In: C. Pontecorvo (Ed), *Discorso e Apprendimento*. Roma: Carocci, 214-221.
- Bonica, L. (2007): *Modelli di transizione scuola-lavoro: fattori di rischio e di protezione per lo sviluppo dell'identità*. In G. Bozzeda, A. Magnabosco, S. Suzzi (Eds), *Per una transizione sostenibile*. Bologna: Carocci, 61-80.
- Bonica, L. (2008): *Transizioni e sviluppo nel ciclo di vita*. In L. Bonica, M. Cardano (Eds), *Punti di svolta e analisi del mutamento biografico*. Bologna: Il Mulino, 49-96.
- Bonica, L. e Sappa, V. (2005): "Cultura e contesti di apprendimento: un confronto tra percezioni e vissuti nella scuola e nella formazione professionale". In: T. Mannarini, A. Perrucca, S. Salvatore (Eds), *Quale Psicologia per la scuola del futuro?*. Roma: Carlo Amore, 665-686.
- Bonica, L., Sappa, V. (2006): *The need for "shared challenges": successful experiences among former school dropouts*. In: A. Delle Fave (Ed.), *Dimensions of well being. Research and intervention*. Milano: Franco Angeli, 330-349.
- Bonica, L., Sappa, V. (2008): "Io non ho la testa". *Transizioni precoci al lavoro e costruzione dell'identità*. In L. Bonica., M. Cardano (Eds), *Punti di svolta e Analisi del mutamento biografico* Bologna: Il Mulino, 173-209.
- Bottani, N. (2002): *Le competenze scolastiche dei quindicenni*. Bologna: Il Mulino, 293-301.
- Bronfenbrenner, U. (1979): *The ecology of Human Development. Experiment by nature and by design*. Cambridge M.A.:Harvard University Press.
- Collins, A., Brown, J.S., Newmann, S.E. (1989): *Cognitive apprenticeship: teaching the crafts of reading, writing and mathematics*. In L.B. Resnick (Ed.), *Knowing, learning, and instruction*. Hillsdale NJ.: Erlbaum, 453-494.
- Engestrom, Y. (2001), *Expansive Learning at Work: toward an activity theoretical reconceptualization*, *Journal of Education and Work*, 14(1), 133-156.
- Erikson, E. (1968): *Identity, Youth and crisis*. New York: Norton.
- Gardner, H. (1991), tr.it.: *Educare al comprendere. Stereotipi infantili e apprendimento scolastico*. Milano: Feltrinelli, 1993.
- Heinz, W.R. (2002): *Transition discontinuities and biographical shaping of early work careers*, *Journal of vocational behaviour*, 60, 220-240.
- Pombeni, M.L. (1993): *L'adolescente e la scuola*. In A. Palmonari (Ed), *Psicologia dell'adolescenza*, Bologna, Il Mulino, 271-291.

- Pontecorvo, C., Ajello, A.M., Zucchermaglio, C. (1995), I contesti sociali dell'apprendimento. Milano: Led.
- Resnick, L. B. (1987): Education and learning to think. Washington DC: National Academic Press.
- Sappa V. (2005): Percorsi di transizione al lavoro di un gruppo di adolescenti e giovani adulti torinesi di origine operaia. Unpublished Doctoral Thesis, Department of Psychology, University of Torino.
- Sclavi, M. (1989): Ad una spanna da terra. Milano: Feltrinelli.
- Sennet, R. (2008): L'uomo artigiano, Milano: Feltrinelli.
- Weiner, B. (1985): Human motivation. New York: Springer-Verlag.

The Contribution of Older Workers' Issue to Innovate Apprenticeship from the Perspective of the Cultural Historical Activity Theory

Maria-Cristina Migliore

*Institute of Education, London University,
20 Bedford Way, WC1H OAL London
IRES-Piemonte (Institute of Economic and Social Research),
via Nizza 18, 10125 Torino*

Summary: The paper refers to a research adopting Cultural Historical Activity Theory (CHAT) to interpret how older workers engage in vocational learning in object oriented activity such as industrial production. It is based on interviews of older workers working in the shop floor in a company which approximates the ideal type of flexible specialization, and is based in the area of Turin. The data are analyzed to pull out the view of older workers on work challenges and how they face them, as a way of highlighting relevant issues for the debate on how to innovate apprenticeship. It emerges the role of practical knowledge in three types of situations as well as the way in which older workers like sharing it with younger colleagues.

Keywords: older workers, CHAT, apprenticeship, flexible specialization

Workplace learning and motives for learning: what the experience of older workers tells about apprenticeship

In front of technological innovations and changing working practices older workers have to keep learning to face work changes and support their company to maintain competitive. A discussion on the aspects of the relations that older workers have with changing working contexts and how they engage in workplace learning and feel integrated in the workplace community of practice can highlight the implications for an updated conceptualization of apprenticeship.

The vocational identity and occupational motivation of apprentices grow in communities of practices shaped by strategies of production and workplace organizations. Apprenticeship presupposes that older workers are 'experts' who can support and mediate the enculturation of young apprentices into their occupations. The focus of the paper is to point out the way in which different industrial production strategies (flexible mass production, flexible specialization, diversified quality production, etc) influence workers motivation to engage in learning on shop-floors, differentially predispose them to want to participate in new forms of working and learning and give them objects to engage with. The issue of the relation between context, learning and the development of work practice has been explored by a number of writers (Lave and Wenger 1991; Guile and Griffiths 2001; Boreham, Samurçay et al. 2002; Evans, Hodkinson et al. 2002; Huys and van Hootegem 2002; Fuller and Unwin 2003; Fischer, Boreham et al. 2004; Rainbird, Fuller et al. 2004; Evans, Hodkinson et al. 2006; Billett, Sommerville et al. 2007; Felstead, Fuller et al. 2009).

This paper offers a new conceptual framework, based on ideas from Cultural Historical Activity Theory (CHAT) and the Sociology of Work and Organization

(SoW&O), to analyzing the mechanisms that connect individuals, their motives and work contexts (Piore and Sabel 1984; Boyer 1987; Bagnasco 1988; Streeck 1991; Regini 1995; Bonazzi and Pulignano 2002). From CHAT, it uses the concept of the object of activity to explain the driving force behind human activities. From SoW, it uses the idea of production strategies to take into account firms' market strategies as a condition for work design and workplace organization. Taken in combination, this allows me to interpret older workers' motivation to learning in shop-floors as connected to the object of industrial activity (flexible mass production versus flexible specialization) which is the motive of the activity (Migliore 2009). Workers' subjectivity is conceptualized as hierarchy of motives, which is seen as having its ontological grounding in the involvement in collective, historical and transformative processes of material production (Leont'ev 1978; Stetsenko and Arieviditch 2004).

Methods and research design

Two case studies are carried out, one on an enterprise identified as an example of flexible mass production and the other one as an instance of flexible specialization. However, the data are mostly collected at individual level, configuring a multiple embedded case study. Data from older workers in the shop floor and other key individuals in the enterprises are collected through free discursive interviews. These are transcribed following a code of notations that highlights subjective aspects in the individual narrative (Poland 2002; Cardano 2003; Cardano 2007). The analysis of the transcripts is carried out with constant comparative method (CCM) (Boeije 2002) that I apply in an original way (Migliore 2009).

I selected case studies in the region of Piedmont, in the area of Turin. This Italian region presents an ageing trend of the workforce as well as a context of significant transformation from the traditional manufacturing economy towards an economy in which high-value-added products and services are strategic and production is market-driven.

Results

Although the focus of the research is on older workers and learning, it is possible to pull out some contributions to the issue of apprenticeship from the data analysis in progress. I put forward the idea of knowing the views of older workers about work changes and challenges in workplaces to highlight possible issues for the debate on how to innovate apprenticeship.

For reasons of space, I will concentrate on the case study on the enterprise E2 (name code) which is close to the ideal type of flexible specialization (Piore and Sabel 1984). In company E2 the labour process requires a shop floor organized with centres of work, equipped with lathes, milling cutters, welders. Usually each centre of work is operated by one worker. The case study on flexible mass production (Boyer 1987; Regini 1995) is about a company (E1) in which most of the production is organized through assembly line. Yet this type of production offers little opportunity for apprenticeship for shop floor workers, due to the object of the activity.

At least three themes emerge in the case of company E2 which can contribute to the debate on apprenticeship: the role of experience in carrying out complex tasks and facing variability; the awareness of multiple ways of doing the same job; and "saying just if requested" rather than teaching. I present and discuss them in turn. Before, I spend few words about how workplace learning appears from the data analysis carried out so far.

Learning as embedded in the engagement with the activity object

Workplace learning appears as a process intimately connected to the object of the industrial production in E2, which is producing parts moulded with lathes, milling cutters and welding. Workers engage with complex tasks and their work is mediated by tool machines, industrial designs, and experience accumulated in decades of work. Engagement is described by an older worker as something that happens because one ends up to like the job he/she is doing, especially if you can engage with other colleagues to enhance the process. I can perceive their engagement with their jobs through the way in which they describe to me their jobs: they give accurate descriptions and while they are talking about the complex tasks they carry out - their speech becomes assertive, more confident, its rhythm quicker, the timbre higher.

Experience in complex tasks: facing variability of conditions

Accumulated experience and relations with other colleagues are often mentioned by the older workers interviewed in company E2. Both elements appear connected to the complexity of tasks they carry out. The interviewees describe their tasks as dotted of mishaps. More than once they say that despite the industrial designs and standard procedures, their jobs present variability related to slight differences of material or problems of buckling. In these cases they point out that experience can help a lot to adapt the procedures to the changed conditions. It also happens that they have to reproduce parts whose industrial designs are not available. In this case too experience is very useful. The third case in which experience is useful is when it happens that the labour process takes a bad turn and it becomes difficult and you risk panicking. Mr D remembers that a younger colleague was probably unsuccessful in mastering the job he does and which he was trying to teach him, because he used to feel very nervous when things did not work properly.

When they talk about their experience, I usually ask them whether they think that what they learned at school is important. The answers show that the relation between theory and practice is not always as expected. One worker says that he received a narrow knowledge at school about a particular topic (doing thread) and that working has given to him the opportunity to operate different jobs and to develop general ideas about mechanics.

Sharing practical knowledge: saying rather than teaching

The older workers I have interviewed all like sharing their tricks with colleagues and especially young colleagues. There is a feeling of achievement that I can perceive in their way of presenting the issue: for instance, Mr C would like to pass his practical knowledge to the younger ones so that when he retires and walks by the plant, he can imagine that there still something of him inside there.

They use not only the verb 'teaching', but also the verb 'saying' (Mr B and Mr A). It seems that they have learned that one cannot teach colleagues and that among colleagues there are talks, not teaching. This characteristic of workplace learning is linked to the equal position workers have in the shop floor, but it seems it works as a way of preserving their own autonomy. Mr A says that he does not like to give advice if not required. He points out that this is because he does not want other colleagues to interfere with his work: so he thinks that also his colleagues prefer first trying to solve the problem and then may look for help, if necessary (Mr A).

Behind the choice of the word 'saying' instead of 'teaching' there also seems to be the awareness that the trick suggested is just one way of doing things. Mr A points out that he may say how to do a certain job, but he always adds that that is how he does the job, but if colleagues find a better way to do it, that is welcome. The same

worker claims that improvements are useful for two reasons: one is about making the process more efficient, the other is about preserving the worker's health. He has been paying attention to his posture while working since he was young, with the idea that one should not have pain in the evening or having health problems later in life.

More than one worker raises the issue that not all colleagues want to share their knowledge. Mr A reports the case of a young colleague who was lucky: he used to work in another company and when arrived in E2 did not know the work. However he could find 'the right people' who 'explain to him a number of things' which 'he learned' and now he is one of the best young colleagues in E2.

Mr D brings the issue of young colleagues who are educated and deal with tasks which are earlier in the labour process and affect workers' work in the shop floor. He refers to the engineers who work in another department of the company ('Tecnologie') where they prepare the programmes of the tool machines. Adopting a tone of voice as a way of showing regret, disappointment, but also pity for them, he tells that they have a theoretical preparation, but "... they do not know because they have never seen practically (...) and therefore they do not know what it is possible to do [and what it is not possible to do] (...) because if one knows how it is produced, then he can think "it is needed this and this and this" (...) sometimes things go wrong because maybe they [the young engineers] do not ask".

Discussion of the findings and implications for apprenticeship

The findings show that when the object of activity implies complex tasks mediated by tool machines and industrial designs, and labour processes dotted by mishap and variable conditions, the practical knowledge developed through experience by older workers plays a relevant role in bridging the gap between theory (represented for instance by the industrial design) and practice. At the same time the research highlights the engagement of the interviewed older workers in their jobs and their willingness to share the practical knowledge with younger colleagues. However from the interviews it emerges that not all workers are happy to share and help younger colleagues.

The way of passing knowledge from more experienced workers to less one occurs mediated by autonomy and independence as important motives for the interviewed older workers. The dynamic is also mediated by the belief that there are not absolute notions and information about how to do a job. However the circulation of knowledge is not always easy. It appears as difficult between different positions in the labour process and workplace organization (workers in the shop floor and engineers in the department of technologies).

These findings suggest that, where it is not already provided, programmes of apprenticeship could benefit from the involvement of older workers who show interest in sharing their practical knowledge with younger colleagues.

However the involvement of older workers implies a re-conceptualisation of the relation between theory and practice, so that these types of knowledge could integrate each other (Guile and Griffiths 2001), as it occurs in the practices of older workers carrying out their complex tasks. The objectives of apprenticeship should then be also about how to deal with emotions and feelings in complex tasks as well as how to preserve workers' own health.

References

Bagnasco, A. (1988): *La costruzione sociale del mercato. Studi sullo sviluppo di piccola impresa in Italia*. Bologna, il Mulino.

- Billett, S., M. Sommerville, et al. (2007): *Work, Subjectivity and Learning: Understanding Learning through Working Life*, Springer.
- Boeije, H. (2002): "A Purposeful Approach to the Constant Comparative Method in the Analysis of Qualitative Interviews." *Quality & Quantity*(36): 391-409.
- Bonazzi, G. and V. Pulignano (2002): *The Market in the Factory. Coordinating Industrial and Organizational Relations in the Italian Motor Industry*. Warwick Working Paper in Industrial Relations. Warwick.
- Boreham, N., R. Samurçay, et al., Eds. (2002): *Work Process Knowledge*. London, Kogan Page.
- Boyer, R. (1987): *The Eighties: The Search for Alternatives to Fordism*. Sixth International Conference of Europeanists. Washington, DC.
- Cardano, M. (2003): *Tecniche di ricerca qualitativa*. Roma, Carocci.
- Cardano, M. (2007): *Notazione ATB per la trascrizione delle interviste discorsive*. Turin, Social Sciences Department -University of Turin: 7.
- Evans, K., P. Hodkinson, et al. (2006): *Improving Workplace Learning*. London and New York, Routledge.
- Evans, K., P. Hodkinson, et al. (2002): *Working to learn. Transforming learning in the workplace*. London, Kogan Page.
- Felstead, A., A. Fuller, et al. (2009): *Improving Working as Learning*. London and New York, Routledge.
- Fischer, M., N. Boreham, et al. (2004): *European perspectives on learning at work : the acquisition of work process knowledge* Luxembourg, CEDEFOP.
- Fuller, A. and L. Unwin (2003): "Learning as apprentices in the contemporary UK workplace: creating and maintaining expansive and restrictive participation." *Journal of Education and Work* **16**(4): 407-426.
- Guile, D. and T. Griffiths (2001): "Learning Through Work Experience." *Journal of Education and Work* **14**(1): 113-131.
- Huys, R. and G. van Hootegem (2002): *A Delayed Transformation? Changes in the Division of Labour and Their Implications for Learning Opportunities*. Work Process Knowledge. N. Boreham, R. Samurçay and M. Fischer. London, Kogan Page.
- Lave, J. and E. Wenger (1991): *Situated learning. Legitimate peripheral participation*. Cambridge, New York, Port Melbourne, Madrid, Cape Town, Cambridge University Press.
- Leont'ev, A. N. (1978): *Activity, Consciousness, and Personality*. Englewood Cliffs, N.J., Prentice-Hall.
- Migliore, M. C. (2009): *Older workers and learning in the industrial sector: when participation and objects matter*. London, Institute of Education.
- Migliore, M. C. (2009): *Production strategies, work organizations, and learning processes in the industrial sector in Italy*. *Researching Work and Learning*. Roskilde University, Copenhagen.
- Piore, M. J. and C. F. Sabel (1984): *The Second Industrial Divide*. New York, Basic Books, Inc.
- Poland, B. D. (2002): *Transcription Quality*. *Handbook of Interview Research. Method&context*. J. F. Gubrium and J. A. Holstein. Thousand Oaks, London, New Delhi, Sage: 629-649.
- Rainbird, H., A. Fuller, et al., Eds. (2004): *Workplace Learning in Context*. London, Routledge.
- Regini, M. (1995): "Firms and institutions: the demand for skills and their social production in Europe." *European Journal of Industrial Relations*(1): 191-202.
- Stetsenko, A. and I. M. Arieviditch (2004): "The Self in Cultural-Historical Activity Theory: Reclaiming the Unity of Social and Individual Dimensions of Human Development." *Theory and Psychology* **14**(4): 475-503.
- Streeck, W. (1991): *On the Institutional Conditions of Diversified Quality Production. Beyond Keynesianism: The Socio-Economics of Production and Employment*. E. Matzner and W. Streeck. London, Edward Elgar: 21-61.

Transforming a Child Labour Scheme into a Modern Apprenticeship one: The Role of NGOs and Government. The apprenticeship component of the CCL Project

Luca Azzoni

*Senior Specialist on Skills and Employability
ILO Sub-regional Office for North Africa –Cairo- Egypt*

Summary: Education is a human right and a key factor in reducing poverty and child labour. And yet 72 million primary aged children, and a much larger number of secondary aged children, are not in school. Many of these children are among the world's estimated 218 million child labourers. In Egypt, an innovative ILO pilot project aims to transform a child labour scheme into a modern apprenticeship programme. Strengthening the role of governments and NGOs in adopting policy measures to improve the training that takes place in informal businesses and intermediating in order to ensure the achievement of decent work outcomes, is expected to substantially increase the effectiveness of apprenticeship schemes applied to child labour.

Keywords: child labour, skills development

Skills to tackle child labour

A central part of the ILO International Programme on the Elimination of Child Labour (IPEC), since its creation in 1992, is related to education and training since they proved effective in tackling child labour. The ILO IPEC utilizes skills training programmes as interventions to tackle child labour. The provision of non-formal or transitional education demonstrates that former child labourers can catch up with their peers who began formal schooling at an appropriate age.

Vocational and skills training programmes for older children (14-17 years) who are at or above the legal minimum age of employment contributes to reduce social exclusion faced by marginalized children, to withdraw older children from hazardous labour and to provide them with marketable skills for decent work opportunities.

Traditional and centre-based apprenticeship schemes for children at or above the minimum age of employment have been successfully utilized in IPEC that fixed the following preconditions for apprenticeship programmes for child workers:

- minimum age laws must be respected;
- apprenticeships is based on a written contract which provides protection for the child and makes clear the obligations of the master craftsperson;
- regular monitoring arrangements are in place to ensure that the apprenticeship proceeds in a proper way. Local employers and workers organizations and NGOs could be involved in the monitoring process;
- workshops where apprentices are based must have safe work conditions, mentors and master crafts should be present;
- simple training for the workshop owners in training skills, occupational safety and health, and terms of the contract.

In IPEC apprenticeship schemes, apprentices are usually placed in a local workshop or business enterprise belonging to the business owner. The training is mainly provided by the business owner or master craftsperson showing the apprentices what to do and then allowing them to replicate the action. The approach is focused on observation and replication, starting with simple tasks, and moving on to more complex tasks.

However, the need to move from traditional to modern apprenticeship in child labour exists to reduce the risk that:

- the children are treated as cheap labour without really learning any skills, or be poorly treated;
- the children are put to work in hazardous environments;
- the predominant on-the-job component undermines formal assessment of trainee progress and, therefore, prevents the recognition of competences and acquired skills;
- to ensure that off-the-job training is provided from other support services to respond to learning needs the children have;
- to manage the school-to-work transition as an important part of the response to child labour.

The role of NGOs and Governments

IPEC works on partnerships to mainstream child labour into national education sector plans and to meet the needs of children workers. An important example of partnership in the effort to tackle child labour and promote education is the Global Campaign on Education (GCE). The GCE, founded in 1999, brings together major NGOs and teachers' unions in over 50 countries around the world.

In many countries, IPEC has worked with governments to develop the capacity of vocational training centres to implement programmes to assist older children and youth. Where these training facilities do not exist, IPEC has worked with other partners to ensure the better provision of vocational education and skills training.

Within the project "Combating Child Labour Through Education" jointly implemented in Egypt by WFP/UNICEF/ILO, an attempt to put into practice the ILO standards, with particular reference to Recommendation R195, 2004 in particular (item (IV), sub-item (f)) on **promoting the expansion of workplace learning and training**, is currently ongoing by enrolling one thousand children aged 14 to 17 engaged in exploitative child labor in an apprenticeship scheme run in safe and non-exploitative workplaces in accordance with the labour law.

The objectives of the apprenticeship component of the project relate to transform a traditional apprenticeship scheme into a modern apprenticeship programme by developing the off-the-job component and institutionalizing the on-the-job component so as to track provided skills through skills logbooks, Monitoring and Evaluation.

The project provides to include apprenticeship contracts, wages, trainees' logbook of skills, training of mentors, theoretical technological teaching, general education and civics and compensatory training to ensure compatibility through literacy classes.

The scheme foresees that apprentices receive off-the-job training and instruction in training centres for a minimum of 24 hours a month in addition to the on-the-job training in a company. To accommodate the needs of working children, the majority of literacy courses are offered on a part-time basis, mostly in the evenings whilst vocational training programs are run in two phases of nine months over the two years, during working hours. Implementing partners receive financial support to cover

education/training expenses, training materials and tool kits for the children. Children are also offered the 'food for education' meals during their training or literacy classes.

Indicators for a monitoring system have been identified to assess the impact of the off and on-the-job vocational training on the effective utilization of the acquired skills in decent and safe working conditions. The apprenticeships scheme is expected to be evaluated to assess primarily the benefits of the vocational training on job opportunities and working conditions.

At the end of the apprenticeship, graduates receive a diploma equivalent to the technical secondary school one.

Once the apprenticeship programme is completed, a support to the transition to the workplace is provided by identifying opportunities in safe and non-exploitative workplaces.

By taking into account the nature of a child labour intervention, the role of the Government with respect to the apprenticeship component has been mainly, though not exclusively, identified to ensure that:

- the overall governance of the programme (institutional framework and mechanisms) is actively exercised through a tripartite National Steering Committee (NSC) comprising the Ministry of Manpower and Migration (MOMM), the Federation of Egyptian Industries and NGO. The NSC coordinates tripartite Local Steering Committees (LSCs) formed in each of 3 the selected Governorates, bringing together social partners, employers and NGOs with Labour Directorates as the leading agency;
- through initial and periodical labour inspection, selected enterprises are formal ones, meet criteria of OSH and working conditions up to the standards;
- an apprenticeship contract is signed by the employer, the children's parents or tutors and a public authority which is the Directorate of Manpower in each governorate;
- technical and financial support is provided to community schools and VTCs by the concerned national and local administrations (MOE, MOMM, Governorates);
- training process are monitored, graduates are jointly assessed with their employers, level of skills of graduates is certified;
- revision of current practices for developing child labour remedial interventions into a new general apprenticeship scheme linked to national labour market policies.

The NGOs, which are called to play the role of intermediary bodies because of their capacity to deal individually with the children involved in the apprenticeship scheme, has been, primarily though not exclusively, conceived as of:

- identifying and selecting children labourers as apprentices and of the skill needs;
- monitoring that quality of offerings off and on the job is in line with existing standards;
- directly implementing components of non-formal education opportunities (literacy classes, core skills sessions and specific vocational training courses);
- providing simple training for the workshop owners in training skills, occupational safety and health, and terms of the contract;
- monitoring and reporting on the daily attendance of the apprentices in workshops with whom contracts have been signed as well as of-the-job

literacy and vocational programmes (through the Child Tracking System - CTS);

- assisting apprenticeship in respect of self-employment, in learning how and where to access business support services, such as micro-credit programmes and other ILO programmes on business development like the Know about Business (KAB) programme;
- supporting transition to the workplace by identifying opportunities in safe and non-exploitative workplaces;
- reviewing project practices and develop them into a specifically tailored apprenticeship programme for children workers and inclusion of other marginalized groups.

The pilot experience is expected to provide lessons and future orientation on how to realise an active partnership, on equal footing and strong participation, of Government, national and local NGOs including the social partners, particularly in a situation of absence of a consolidated national scheme that promotes the participation of enterprises, from micro to small and medium, in enterprise-based training and apprenticeship.

In the businesses where children mostly work, the boundaries between the status of employee and learner are rather uncertain. Strengthening the role of governments and NGOs in, respectively, adopting policy measures to improve the training that takes place in informal businesses and intermediating in order to ensure the achievement of decent work outcomes, is expected to substantially increase the effectiveness of apprenticeship schemes applied to child labour.

“Putting Knowledge to Work” in Work - based Programmes: Conceptual Issues, Pedagogic Strategies and Enduring Challenges

Karen Evans and David Guile

Introduction

The aim of this paper is to inject fresh thinking into the long-standing challenge of integrating theory and practice in work-based learning. Over the years, approaches to this challenge have typically focused on questions of how learning can be ‘transferred’ from one setting to another, usually from theory into practice (Evans *et al.* 2002, 2006). What has continually dogged attempts at transfer is how to overcome the assumed ‘abstract’ nature of theory in relation to the assumed ‘real’ nature of practice (Lave, 1988). In best cases, this is normally seen as a single movement as encapsulated in the term ‘from theory to practice’.

We propose in this paper another approach based on the concept of *recontextualisation*. We derive this concept from two theoretical traditions – Cultural Historical Activity Theory and Bernsteinian Theory. We use some of the tenets of these traditions to establish a conceptual framework to describe and analyse the activities that facilitate movement of forms of knowledge from one context to another through the embodiment of knowledge in curricula, pedagogic, workplace and personal practice. Hence from our perspective, recontextualisation is, in contrast to transfer, a multi-faceted concept that refers to the idea that concepts and practice change as we use them in different settings.

Background of the concept of recontextualisation

One of the assumptions that underlies the cognitive perspective on transfer is the notion of *decontextualisation*, in other words, that knowledge and skill can be taught in such a way that they are detached from the conditions that constrain the generality of meanings and actions. It is this claim that led Anderson and colleagues (1996) to argue with Greeno (1997), who was advocating a ‘situative’ perspective on learning, in a famous exchange of views about the possibility of transfer in *Educational Researcher* that, unless one accepts that the propositional basis of knowledge constitutes a generative resource to support the applicability of knowledge in a range of different contexts, we are left with a totally relativistic position on knowledge and learning.

Greeno countered by arguing that the cognitivists’ notion of propositions places knowledge outside of our minds and emerging from some assumed independent world and that this position leaves us oscillating between our self-generated mental representations and the propositions that purportedly represent an objective reality. Greeno proposed an alternative formulation. Instead of starting with modes of abstract knowledge (decontextualised) that we have to apprehend and apply in some way, he maintained it was more helpful to start with individuals and their ‘ways of knowing’ (situated in their lived experience). This starting point enables us to identify how we develop a growing ‘generality of knowing’ that we then replicate through patterns of activity in different contexts.

The accusation of operating with a decontextualised view of knowledge has also been applied to Vygotsky, one of the founders of the Cultural-Historical theory of

development a tradition that accepts the importance of context for development, and one of the sources for our formulation of the concept of recontextualisation. Vygotsky has been accused by other members of the cultural-historical community such as Wertsch (1985) and Wells (1999) and of the situated community such as Lave (Lave and Wenger, 1991) of assuming that the 'mediational means' can be decontextualised and that the development of abstract thought is not only an overarching principle of learning and development, but also the ultimate form of human achievement.

There is however a fundamental difference between Anderson and Vygotsky's respective positions, even though they both retain a belief in the concepts of abstraction and generalisation, to the meaning they attach to the concept of context. Anderson and colleagues use the concept as a background for our development and actions whereas Vygotsky sees context as constitutive and enabling of development. The former position is predicated on a separation of mind and world while the latter is not.

The contribution of Cultural Historical Activity Theory (CHAT)

Vygotsky distinguished between two type of concepts – theoretical and everyday – the former arose through the specialist forms of activity such as inquiry and verification associated with different disciplinary traditions whereas the latter arose from our saturation in day-to-day experience. When Vygotsky talked of theoretical concepts, the paradigmatic example of abstract knowledge, he did not believe that abstraction entailed either the application of propositions that had been memorised to a new situation nor that it constituted the decontextualisation of concepts from the context in which they were originally learnt. Concepts, for Vygotsky, were meaningful because they comprise part of a system of theoretical connections that has been historically constituted. Moreover, he conceived of them as cultural tools we use to:

Penetrate the inner essence of things, for the nature of things is not disclosed in direct contemplation of one single object or another, but in connections and relations that are manifested in movement and development of the object, and these connect it to the rest of reality. The internal connection of things is disclosed with the help of thinking in concepts, for to develop a concept of some object mean to disclose a series of connections and relations of the object with the rest of reality; to include it in a complex system of phenomena (Vygotsky, 1998, p. 54)

From this perspective, concepts have to be taught so that learners can appreciate their relation to one another, so we are gradually able to reconstruct the meaning of and progressively develop our sense of the potential application of a concept as we appreciate the reasons that underscore the system within which a theoretical concept is located.

This emphasis on our reasons allows us to appreciate that we are not engaged in a process of decontextualising concepts by mechanistically applying them to one situation after another, rather we are using our understanding of the reasons that give a theoretical concept its capacity for generalisation and hence its meaning to continuously *recontextualise* those concepts as we engage with new situations and challenges.

The concept of recontextualisation is a helpful way to explain what Vygotsky envisioned was entailed as we work in the zone of proximal development to use of concepts as cultural tools to reveal aspects of the world that are not immediately discernible from unmediated perception. Recontextualisation is not, however, a concept that Vygotsky coined and as van Oers (1998) in a prescient but under

appreciated article observed some years ago, to fully understand the implications of the explanatory power of this concept it is necessary to relate Vygotsky's ideas about learning to Leont'ev's theory of activity.

Learning entailed, for Vygotsky, the reconstruction of cultural activities, for example, learning science, and tools, for example, the concept of density, in a school. The concept of activity is however rather underdeveloped in Vygotsky's work. Leont'ev developed this concept further by distinguishing between three levels of description and analysis. Leont'ev reserved the term *activity* for socially sanctioned and organised collective practices such as education, health care etc. He pointed out that activities are always embodied in *actions*, which he saw as moments of activities and tied to the objects to which they are directed, and thus are always by definition situated in place and time. Furthermore, Leont'ev also drew attention to the habituated *operations* that we often engage in to accomplish many of our well-known and regularly recurring actions. From this perspective, actions are always contextualised by cultural, personal and situational factors; thus context emerges as a number of interconnected factors codetermine the structure and meaning of human action.

Leont'ev's development of the concept of activity introduces, as van Oers (1998, p. 138) points out 'the idea that any activity can be realised in different forms of action patterns'. van Oers clarifies the meaning of this claim by distinguishing between 'horizontal' and 'vertical' recontextualisation. The former term refers to the 'multiple realisation' of a well established activity, for example, we can write with a pen or a computer and because they enable us to express ourselves through slightly different action patterns we are able to produce different written artefacts. The latter term refers to the way in which problems arise within an existing activity and come to constitute a pivot for new action patterns. These action patterns, as van Oer's observes (*ibid.*) 'often lead to the invention of new goals, new means for action, and new strategies'.

Van Oers helps us appreciate the contribution of CHAT in formulating a concept of recontextualisation. However, although his account of horizontal and vertical recontextualisation acknowledges the way in which they are codetermined by a constellation of cultural, personal and situational forces, van Oers offers little sense of the way in which different 'fields' of activity impinge upon the recontextualisation process. This issue has however been addressed by the sociologist of education Basil Bernstein who although he is not a cultural-historical theorist, his work has been seen to have a number of affinities with that tradition (Daniels, 2006).

The contribution of Bernsteinian Theory (BT)

Bernstein addresses the challenges associated with a specific expression of recontextualisation namely the process by which discipline-specific knowledge is converted or pedagogised to constitute curricula-based knowledge. He invokes the term 'pedagogic device' to describe the principles that underpin the process of converting disciplinary knowledge into curricula knowledge (Bernstein, 1996, 2000, 2006). Furthermore, he identifies three main 'fields', that is, sites of conflict and competition, that influence directly and indirectly the pedagogising process (Singh, 2002).

The first is the field of the 'production of knowledge'. Using Durkheim's distinction between the material (everyday and mundane world) and the immaterial (transcendental world), a generative principles for the production of knowledge in all societies, Bernstein (2000) distinguishes between two types of knowledge that relate

to those worlds – horizontal discourses’ – that arise from our direct encounter with the world and – ‘vertical discourses’ – that arise from the construction of a symbolic order constructed by an accretion of collective representations’ (Singh, 2002, p. 575). The significant issue, for Bernstein, is the strength of the insulation demarcating the two categories and well as the form of knowledge generated within these categories, rather than the actual content because he appreciate that changes culturally and historically.

These concerns anticipate the link to the second field – ‘recontextualisation’ – which is where the specialist knowledge (vertical discourses) is translated into a form that constitutes the content for primary and secondary education. Bernstein distinguishes between two sub-fields of translation: the ‘official recontextualisation field’ and the ‘pedagogic recontextualisation field’. The former refers to the specialist educational agencies who formulate policies to influence the selection of the content of the primary or secondary curriculum. The latter refers to the role of universities’ departments of education and other educational interest groups, for example, parent associations, policy formation bodies, who attempt to exert some influence on the government as regards the selection and teaching of the content of the curriculum.

Agents operating in the recontextualisation field are, according to Bernstein (1990, p. 184), primarily concerned with establishing a ‘pedagogic discourse’, that is, a set of rules that can serve as a ‘recontextualising principle which selectively appropriates, relocates, refocuses and relates other discourses to its own orderings’ (ibid) to embed discipline specific knowledge into the curriculum and, in the process, to enculturate young people into longstanding social traditions. For this to happen, however, it is essential that educational institutions develop ‘instructional’ and ‘regulative’ discourses. The former refers to the language used to describe the education and social aims associated with primary and secondary education while the latter refers to the rules that schools use to generate the social relations that facilitate the transmission and acquisition of knowledge e in schools.

This focus on transmission and acquisition takes us to the field of ‘reproduction’. Bernstein uses this term to convey the idea that the knowledge that has been selected from disciplines and converted by academics, specialist writers and teachers into the texts in the recontextualisation field is further transformed as those texts are appropriated by teachers and converted into modes of common or shared classroom knowledge (Singh, 2002). The transformation of the pedagogised knowledge contained in texts is further translated as teachers recontextualising discourses from other sources such as family/community/ peer groups in the classroom to help them to explain the meaning and the relevance of such texts to students.

Differences of view and lacunas in cultural historical activity theory and ‘Bernsteinian’ theory

The first difference of view is that slightly different views exist between writers associated with these traditions as regards the similarity or difference between Bernstein’s distinctions between ‘vertical and horizontal discourses and Vygotsky’s (1987) distinctions between ‘theoretical’ and ‘everyday’ concepts. Some writers, for example, Daniels (2000) are inclined the stress the similarities between the two pairs of analytical distinctions while other writers, for example, Guile (2006) are inclined to stress their differences. The issue of difference between the two interpretations of the knowledge distinctions hinges on how these writers interpret the dialectical foundation of Bernstein and Vygotsky’s thought.

Daniels maintains that although Bernstein and Vygotsky started from different philosophical assumptions – in Bernstein’s case a concern for Kantian ‘transcendentalism’ and in Vygotsky’s case a concern for Hegelian ‘anti-foundationalism’, – both writers drew similar conclusions, even though they employed different terminology, about the difference between theoretical and practical knowledge. In contrast, Guile maintains that Bernstein’s claim that everyday knowledge is generated through direct contact with the world is not compatible with Vygotsky’s mediated conception of the development of mind. He stresses that Vygotsky in contradistinction to Bernstein assumed that all forms of our contact with the world are mediated because we use our working sense of theoretical ideas implicitly or explicitly as resources to mediate our contact with the world.

The position that we have adopted in this paper is, on the one hand, to recognise the common ground between both writers and accept that different fields of knowledge production generate different types of knowledge; and, on the other hand, to accept that there is a more mediated relation between the ‘classification’, ‘form’ and ‘framing’ of knowledge than Bernstein acknowledges. This position enables us, as will become apparent later in the paper, to engage with the hybrid forms of knowledge that many neo-Bernsteinian writers (Muller, 2006; Singh, 2002) have acknowledged are emerging in the economy or that characterise workplaces as well as accepting the insights of other writers, who have drawn on Bernstein’s knowledge distinctions such as Young (2008), that combining different forms of knowledge, based on different principles, into a coherent curriculum is a very challenging undertaking.

The first lacuna is that although Bernstein’s use of the concept of field is a considerable advance over van Oers very general use of the term activity he was mainly concerned with academic and general education, particularly at secondary level, his work includes a number of conjectures and interesting, albeit fragmentary, insights that are relevant for our concern for work-based learning. Bernstein’s discussion of the relationship between disciplinary knowledge and academic pedagogy cannot be directly translated into WbL. Before any notional links can be made between disciplinary knowledge and vocational pedagogy, consideration must be given to the operational demands of workplace activities.

Workplaces, as Barnett (2008) observes, ‘generate technological and organizational problems which, given the enormous sectoral diversity, are usually sector-specific but which often transcend the details of particular jobs or particular organizational settings’. These problems are significant for vocational pedagogy, but it also has to make some accommodation with the ‘workprocess knowledge’ (Boreham et al, 2001) that characterises the actual nature of work in production or service contexts.

This introduces a challenge that Bernstein did not address directly but may have indirectly provided some useful resources to help us to conceptualize the links between workplace activity and disciplinary knowledge. We will address issue in our presentation.

References.

- Barnett, R. (2006) ‘Vocational knowledge and vocational pedagogy’, in Young, M. and Gamble, J. (eds) *Knowledge, Curriculum and Qualifications for South African Further Education*, Cape Town: HSRC Press.
- Beach, K. (2003) ‘Consequential transitions: a developmental view of knowledge propagation through social organisations’, in Tuomi-Grohn, T. and Engestrom, Y. (eds) *Between Work and School: New Perspectives on Transfer and Boundary Crossing*, London: Pergamon.

- Bernstein, B. (2000) *Pedagogy, Symbolic Control and Identity: Theory, Research Critique* (Revised Edition), Lanham: Rowman and Littlefield Publishers, Inc.
- Boreham, N., Samurcay, R. and Fischer, M. (eds) (2002) *Work process knowledge*, London: Routledge.
- CCN/UEA (2004) 'Foundation degree in financial services, validation document',
- Evans, K., Hodkinson, P., Rainbird, H. and Unwin, L. (2006) *Improving Workplace Learning*, London: Routledge
- Evans, K., Guile, D. and Harris, J. (2009) *Putting Knowledge to Work: A New Approach*, Institute of London, University of London <http://wlecentre.ac.uk>
- Fischer, M. and Rauner, F. (2002) 'The implications of work process knowledge for *Business Strategy*', London: HarperCollinsBusiness.
- Guile, D. (2006) 'Learning across contexts', *Educational Philosophy and Theory* 38 (3): 251-68.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*, Cambridge: Cambridge University Press.
- Tuomi-Grohn, T. and Engestrom, Y. (eds) (2003) *Between Work and School: New Perspectives on Transfer and Boundary Crossing*, London: Pergamon.
- van Oers, B. (1998) 'The fallacy of decontextualisation', *Mind, Culture and Activity* 5 (2): 143-52.

Approaches towards a Qualitative-Ranked Measuring of Competencies in LSA

Rainer Bremer, Andreas Saniter

ITB Uni Bremen, Am Fallturm 1, Pf. 330440, 28334 Bremen, Germany

Summary: When trying to measure competencies of developing learners, researchers have to decide whether they are interested in huge numbers with the advantage of statistic significance or a qualitative approach that might explain students behaviour, but which will show a lack of representativeness. Our approach combines aspects of both paradigms: A paper and pencil test with (at least) thousands of participants that is not only analysed in terms of right and wrong, but also with respect to the chosen approaches of the students. A class of these approaches can be seen as the results of misconceptions (i.e. inadequate concepts) which are treated as intermediate states in the development from naïve to competent. Our data strongly supports this hypothesis: Whilst the amount of wrong and right answers correlates to students' graduation and/or chosen vocational track the distribution of answers based on misconceptions is almost independent of the graduation and/or chosen vocational track.

Keywords: Competencies, Development, LSA, Conceptual Change

Introduction

In the recent years many efforts were spent on measuring the competencies of 15-year old students finishing their general education. Some of these Large Scale Assessments (LSA, i.e. PISA, TIMSS) were published causing partly crazy attention. This led to the idea to have a comparable approach to the results of vocational education (Baethge et al. 2006). All these projects have in common a strictly binary design: Each multiple choice item has exactly one right answer – the others indicate wrong solutions. This has the advantage that it is pretty easy to calculate with the results under a psychometric paradigm – but conclusions are restricted to status reports without any statements related to the development of competencies – not to mention pedagogical advices. Starting to work on this gap we have chosen a slightly different design.

Methods and research design

The answers to each of our 24 multiple choice items of the pilot study were multidimensional. One is correct, one is completely false and the other two or three answers are based on misconceptions (e.g. Stark 2002; Chi 2005). We expect that these answers can be treated as intermediate transitions in the development of student's competencies.

Participants of the first part of the study were 2500 students in Bremen (Germany) at the beginning of their vocational training. All of them had to work on the same tasks, independent of the vocational track they have chosen. They had two hours to answer our questions and were not forced to collaborate, they were even allowed to leave the classroom, but almost no one did this.

Results

The analysis of the data (collected in autumn 2008) led to some of the expected conclusions: The former schooling (no graduation [4], lowest degree [3], middle degree [2] and university-entrance diploma [1]) explain the variance in the right and wrong answers (see fig. 1 & 3). But the distribution of the answers based on misconceptions (see fig. 2) is independent (in terms of significance) of the former schooling!

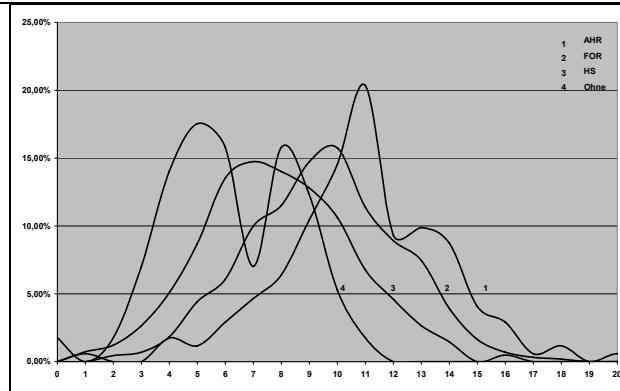


Figure 1: Differentiation of the right answers with respect to graduation.

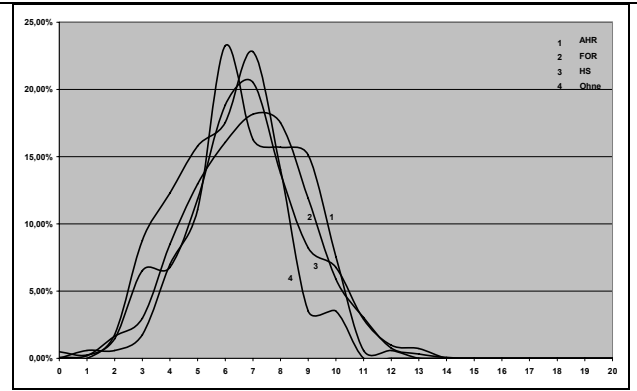


Figure 2: Differentiation of the answers based on misconceptions with respect to graduation.

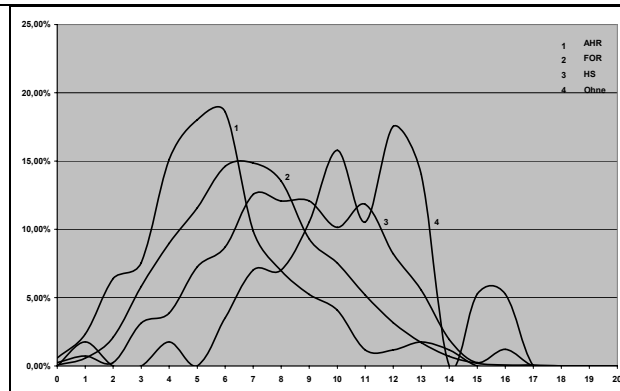


Figure 3: Differentiation of the wrong answers with respect to graduation.

For figure 1-3: x-axis: Number of respective answers, y-axis: Percentage of students who gave this number of right / intermediate / wrong answers, connection of data points due to visualisation

This strongly underpins our hypothesis: This category of answers refers to an intermediate approach of learners that is part of the development of operational skills. Surely not all learners must rest a certain time on this level for each question during their personal development; some might jump directly from the wrong to the right answer. But the independency of this distribution from graduation makes clear that this intermediate approach is not related to certain types of schools. These results are treated as our “baseline”, the preconditions our population brings in from general schooling. Reflecting the results of the analysis of the first data set to the participating vocational schools enabled the teachers to know more about their student’s misconceptions – and to teach in a way which helps the students to leave the actual reached deficient status. Not only the graduation, but also the chosen or assigned vocational track helps to explain variance (in a minor degree): The upper secondary school [1], the training within industry [2], school-based training [3] and school-based

substitutes [4] have an influence on the distribution of the right and wrong answers (see fig. 4 & 6). But again the distribution of the answers based on misconceptions (see fig. 5) is independent (in terms of significance) of the chosen or assigned vocational track! Again this underpins our hypothesis described above.

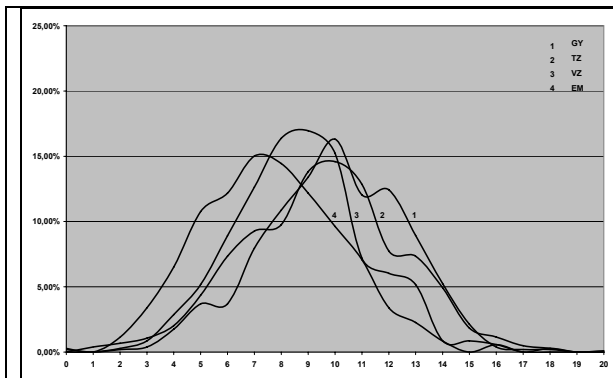


Figure 4: Differentiation of the right answers with respect to the chosen or assigned vocational track.

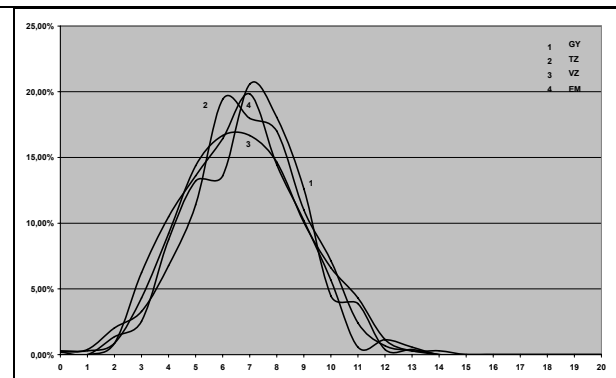


Figure 5: Differentiation of the answers based on misconceptions with respect to the chosen or assigned vocational track.

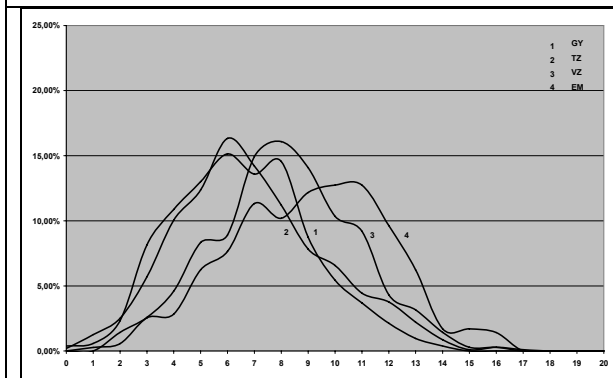


Figure 6: Differentiation of the wrong answers with respect to the chosen or assigned vocational track.

For figure 4-6: x-axis: Number of respective answers, y-axis: Percentage of students who gave this number of right / intermediate / wrong answers, connection of data points due to visualisation

What we want to figure out in future is the influence of the chosen or assigned vocational track on the development of competencies (i.e. concepts). In Autumn 2009 and Autumn 2010 follow-up studies with the same participants and the same items will be performed. We expect the vocational education to reduce the differences from general schooling: Most of the students in regular tracks should be able to answer most of the questions (at least) on an intermediate level. The chosen vocational track should contribute more and more to variance explanation.

References

- Berufsbildungs-PISA: Machbarkeitsstudie. Baethge, Martin / Achtenhagen, Frank / Arends, Lena / Babic, Edvin / Baethge-Kinsky, Volker / Weber, Susanne, Martin Baethge, Lena Arends, Edvin Babic, Volker Baethge-Kinsky, Susanne Weber, Franz Steiner Verlag, 2006.
- Chi, M. T. H. (2005). Commonsense conceptions of emergent process: Why some misconceptions are robust. *The Journal of the Learning Science*, 14, 161-199
- Stark, Robin (2002): *Conceptual Change: kognitivistisch oder kontextualistisch?* (Forschungsbericht Nr. 149). München: Ludwig-Maximilians-Universität, Lehrstuhl für Empirische Pädagogik und Pädagogische Psychologie, Internet, ISSN 1614-6336

WORKSHOP III

LEVELS OF GOVERNANCE AND THE ROLE OF STAKEHOLDERS IN APPRENTICESHIP

Apprenticeship and Modern Vocational Education – The Rise of the German ‘Dual System’

Philipp Gonon

*Chair of Vocational Education and Training, Institute of Upper Secondary and
Vocational Education, University of Zurich
Beckenhofstr. 35, 8006 Zurich*

Summary: The dual system emerged not by hazard but was deliberately designed by reformers, who were concerned about the so called “social question” (“soziale Frage”). In this line the dual system was a re-invention of an apprenticeship model and introduced between the 1880’s and the beginning of the 20th century. It was the “Verein für Socialpolitik” and later Georg Kerschensteiner who dealt with the question of modernization of apprenticeship by supplementing it with school education. In discussing the economic and social change in England, the most industrialized country in those times, and in assessing the industrial education in France, they developed a model of combining learning at school and work. This incremental innovation took place due to a consensual proceeding by all stakeholders.

Keywords: apprenticeship, school and work, incremental innovation

Introduction

This paper explores how theorists like Adam Smith and later the “Verein für Socialpolitik” and the German thinker of vocational education Georg Kerschensteiner have dealt with the question of apprenticeship. Yet it is precisely the education of the lower classes and their integration into society at the end of the 19th century which assisted vocational education in its specificity to a kind of practical breakthrough.

Adam Smith’s view on apprenticeship

Adam Smith rejected the view that people of the lower strata, the common people, need no education. Although Smith’s *Inquiry into the Nature and Causes of the Wealth of Nations* (Smith 1776/1976) contains some skeptical comments on the educational system of the day, he nonetheless believed that efforts in education were important for the prosperity and growth of the economy and society. A more civilized and commercialized society demands not less education but more, precisely for the lower social classes. But the education of the “common people” did not come about on its own, because they had little time for education. As soon as their children were old enough to work they had to work, and under conditions which Smith did not regard as conducive to learning. A lack of education and habit not only restricted their power of judgment, their statements were seldom heard in public deliberations and given but little attention (Smith 1976, p. 212). The statements quoted so far should be seen more as general comments on educational policy. Explicitly, quite little has been said about vocational education per se, even though there was a connection here with the education of the lower orders of society.

The apprenticeship is seen by him through an economic prism as a means to keep down the number of competitors in several trades. That is expressed in the guild privileges enjoyed. It is alleged that such special rights which might have facilitated

the unhindered exercise of a trade necessarily limit competition in a city. In order to arrange this, apprenticeship with a specially suited master is required as a binding requirement. In addition, commonly the number of apprentices a master is allowed to train is specified in guild rules, along with the prescribed duration of the apprenticeship. Restrictions on the number of apprentices and the comparative length of the apprenticeship increase the expense for such training, and thus operate as restrictions. Smith's views on guild regulations are unequivocal. The property which every human being possesses in his labor power is sacred and inviolable. To prevent a poor man whose power (capital) lies in the skill of his hands from using them unhindered is thus a violation of this most sacred of possessions -- and a transgression against the freedom of the worker, and all who are prepared to employ him (ibid., p. 106). The worry that such measures served to keep out those deemed unsuitable is in his view hypocritical, outrageous and oppressive. Moreover, the regulation of a lengthy apprenticeship cannot guarantee that no bad products will enter the market. What is relevant is not whether an artisan spent seven years in an apprenticeship but whether the quality of the product is ensured. Moreover, the institution of a long apprenticeship does not automatically train young people for industriousness and diligence. On the contrary individuals developed a quite natural antipathy to work if over a long period of time there was no visible utility to their endeavors. Smith thus calls for doing away with apprenticeship and integrating young people directly as journeymen into the work process. Such training is in any case more effective, less boring and less costly. Similar to other discussions in his *Inquiry*, as is especially clear in his arguments against mercantilism, Smith sees apprenticeship ultimately as an institution which serves to protect producers. To eliminate it would thus benefit consumers. The community as a whole would also be a winner, since products and services would be made cheaper (ibid., p. 108).

The view on apprenticeship of the German "Verein für Socialpolitik"

While the mainstream in economics paid little attention and accorded scant significance to the question of education, a current in Germany, the "historical school of national economy", which grappled with Smith's theses, and revised them in respect to the question of vocational education. When in 1875 in Germany the then three-year-old *Verein für Socialpolitik* held its convention to discuss the future of the apprentice system, it was based on 16 expert opinions, one of which will be cited here. Lujo Brentano a leading representative of the so-called "lectern socialists," sought to contextualize Smith's arguments against apprenticeship in the Britain of his day in order to better relativize them. He called for preserving the apprentice system through reform. What was needed was a clear contractual basis for the relation between apprentice and master and instruction at industrial schools, precisely in the interest of the workers.

Adam Smith was looking primarily at the decrepit state of small handicraft business at the time (Brentano 1875, p. 51). His attack was directed primarily against the law on apprentices, but he apparently was not well-informed about education in the large factories then emerging. Brentano argued that under the conditions of large-scale industry, a reformed apprentice system would take on a new significance. Like most writers in the 18th century, Smith had no eye for the huge differences in human talent. It was important to elevate the great mass of the population, which tended toward an average level of competence, to the highest level possible by means of special institutions for the purpose. Because left to fend for themselves, they would go down to ruin. For that reason, special education was needed for the various vocations and trades. Smith's call to fully abolish the apprentice system had

actually come to pass in England. Brentano looked at and rejected Smith's predictions based on empirical evidence, and he was himself a specialist on working conditions in Great Britain. The consequence of abolishing of the law on apprentices had been to lower the qualification of the workers as a whole, and to increase arbitrary decision on the part of management. Moreover, apprentices had also not fulfilled their obligations. The trade associations had then pressed for a reduction in the number of apprentices in order to counter a surplus of cheap labor. This had been in their interest, since half-trained or unskilled workers who were unemployed later became a burden for their budgets.

It was in the interest of what today is termed "social partnership" that partners with equal rights representing their interests in separate organizations should operate under clear legal arrangements, and that if disputes arose there was some sort of court or office for arbitration. The same negative consequences were evident later with the Trade Regulations Code of 1869, which consciously eliminated a written apprenticeship contract (*ibid.*, pp. 64 f.). So the apprenticeship system, as German and English experience clearly showed, and with nearly analogous results, should not be abolished. The solution was its reform. The key reform envisioned was that the apprentice system as the sole means of instruction was to be supplanted or supplemented by instruction in special industrial schools. Technical subjects such as drafting, geometry, mechanics, physics and chemistry should be taught there. It was also important, as wise factory owners would doubtless agree, to enhance the versatility of the workers. In such a "combined instructional system," the apprentice "would thus really learn something." Another proposal of Smith should be heeded: the apprentice should receive a nominal fair wage (*ibid.*, p. 68).

It was this perspective, based on regulated and well-grounded vocational education at school and in the firm, coupled with social partnership, which established itself in the field of apprentice training in the German-speaking countries in the 20th century. Ferdinand Steinbeis supplemented these ideas by calling for obligatory attendance at a school for further education (*Fortbildungsschule*). This was contained in one of seven expert opinions prepared for the discussion in the *Verein für Socialpolitik* in 1879 (Steinbeis 1879).

Contrary to a *laissez-faire* attitude, predominant at the time in Germany too in the leading economic school, Brentano and the *Verein für Socialpolitik* insisted on a policy of social reform. Intervention by the state would increase the importance of the working class. That was to be achieved primarily by strengthening their rights and implementing their claims as based on these rights. Over against protection for the producers, which was sought in part through import tariffs and further restriction, and a system of guilds still to be created, free trade was also defended. This was to be coupled with an educational system geared to better qualification for the workers and the improvement of product quality.

This conception, which from today's vantage seems astonishingly modern, was formulated in contrast with socialist and extreme paternalistic-nationalistic notions such as espoused by Treitschke. It can be considered a critical further development and elaboration of Adam Smith's views.

The Social Question, Social Pedagogy and Georg Kerschensteiner

The important role accorded the education of the working class in order to achieve appropriate participation in economic life and society raised a new set of issues toward the end of the 19th century in pedagogical discourse, the young field of sociology and philosophy: the "social question".

In his reform efforts on behalf of vocational education, Georg Kerschensteiner also pointed to the close link with the actual conditions of the workers, repeatedly referring to the literature and observations on social developments in Britain (Kerschensteiner 1901). It was Friedrich Engels' book *Zur Lage der arbeitenden Klassen* which prompted von Nostitz, Kerschensteiner's key source, to examine Engels' thesis that the dynamism of capitalism would lead to revolution and social upheaval. Educational measures for the working class would assist workers to integrate into society. That is why Kerschensteiner advocated pressing ahead with vocational education supplemented by instruction in schools of further education. He also based his ideas on experience in nearby countries, such as in Switzerland. Even if this conception served primarily to assuage the conservative Wilhelmine elites, it is nonetheless important that vocational education not be overlooked and excluded in its vital relation to society. That connection faded in Kerschensteiner's thought and among vocational education theorists in subsequent years (Kerschensteiner 1926). Vocation in the course of time was moralized and reduced to a social pedagogy.

Methodology

The Methodology is based on historical analysis. Documents, grey papers and publications are the basis, which allow contextualizing the discourse. The approach is hermeneutic. The work is based on previous historical research done by myself and other authors like Greinert, Harney, Hasfeld, Schütte, Wahle and Wettstein. Another strand is also the reference to the historical institutionalism from authors like Thelen and Trampusch.

Results

Vocational pedagogy as a sub-field of educational theory building is an heir to the economic discourse of the historical school of national economy in the German-speaking lands. Via the "social question," the "idea which did not come so naturally to German pedagogy, namely to see vocation as a basis and vehicle for political education" (Greinert 1990, p. 401), entered pedagogical discussion. It also mirrors the confrontation with Adam Smith's views. That debate contributed in any case to establishing vocational education in its present-day form in Austria, Germany and Switzerland. The concept of modernization of the apprenticeship followed the line of an incremental innovation. The apprenticeships were not abolished like in other countries, but modified and supplemented with school-based elements in order to establish a social and educational welfare. The basis of this approach is an overall consensus of the political and economical actors.

References

- Brentano, L. (1875): Gutachten VII. In: Verein für Socialpolitik (Hrsg.): Die Reform des Lehrlingswesens. Sechszehn Gutachten und Berichte. Leipzig, S. 49-71.
- Greinert, W. D. (1990): Das Verhältnis von politischer und beruflicher Bildung. In: Bundeszentrale für politische Bildung (Hrsg.): Umbrüche in der Industriegesellschaft. Bonn, p. 401-413.
- Kerschensteiner, G. (1926): Theorie der Bildung. Leipzig: Teubner.
- Kerschensteiner, G. (1966): Staatsbürgerliche Erziehung der deutschen Jugend (1901). In: G. Wehle (Hg.): Georg Kerschensteiner. Band I. Berufsbildung und Berufsschule. Paderborn 1966, p. 5-88.
- Smith, A. (1976): Inquiry into the Nature and Causes of the Wealth of Nations. London
- Steinbeis, F. (1879): Fortbildungsschule, Fachschule, Lehwerkstätte. Gutachten für den Verein für Sozialpolitik. In: Verein für Socialpolitik (Hrsg.): Das Gewerbliche Fortbildungswesen. Leipzig, p. 1-23.

The EQF and Apprenticeship: the Case of Bricklaying

Michaela Brockmann, Linda Clarke, Christopher Winch

*University of Westminster,
Westminster Business School, London NW1 5LS,
King's College London, Stamford Street, London SE1 9NH*

Summary: Potential difficulties in the implementation of the European Qualification Framework (EQF) are apparent at both sectoral and occupational levels, for example within the construction sector for the recognition of bricklaying qualifications. Its success may depend on the development of cross-national, cross-sectoral and cross-occupational Zones of Mutual Trust (ZMTs), establishing arrangements for recognising equivalences in terms of mutual knowledge and methods of working. This paper focuses in particular on disparities between the English and continental systems (e.g. Germany and the Netherlands), in order to try to identify some of the difficulties with which implementation of the EQF will be confronted. In England, we discern the co-existence of two systems, a traditional trade-based and an occupational one struggling to emerge and develop. The paper discusses the implications of this for the EQF.

Keywords: EQF; qualification; trade; occupation

Introduction

Potential difficulties in the implementation of the European Qualification Framework (EQF) are apparent at both sectoral and occupational levels, for example within the construction sector for the recognition of bricklaying qualifications. The EQF is based on the Open Method of Co-ordination, involving joint identification and definition of objectives to be achieved, establishing measuring instruments and benchmarking (EC 2009). Its success may depend on the development of cross-national, cross-sectoral and cross-occupational Zones of Mutual Trust (ZMTs), establishing arrangements for recognising equivalences in terms of mutual knowledge and methods of working (Coles and Oates, 2004). This paper focuses in particular on disparities between the English and continental systems (e.g. Germany and the Netherlands), in order to try to identify some of the difficulties with which implementation of the EQF will be confronted. Three issues arise in the case of bricklaying: the level of the qualification within the hierarchical structure of EQF; the scope of the occupation; and the stakeholders involved.

Methods and research design

The paper draws on data from two projects: First, the Nuffield study 'Cross-national equivalence of vocational qualifications and skills' which examined differences in understandings of key concepts underpinning vocational education and training systems in Europe. It is based on case studies of four occupations (bricklaying, lorry driving, nursing and software engineering) in four countries (Germany, France, the Netherlands, and England). Second, the Leonardo-da-Vinci study 'Bricklaying qualifications, work and VET in Europe' which seeks to examine bricklaying qualifications in eight European countries. The research involves documentary and

statistical evidence as well as semi-structured interviews with key stakeholders at macro- and micro-levels.

Results

The qualification

English bricklaying qualifications demand less knowledge, skill, autonomy and responsibility than in France, the Netherlands and Germany, being focussed on English National Vocational Qualification (NVQ) Level 2, largely confined to the development of bundles of task-specific skills, with minimal educational input necessary for long-term individual development. In the other countries apprenticeship is at least the equivalent of NVQ level 3 and concerns vocational, general and personal development (Brockmann et al 2008). There are also defined entry routes, as in the Netherlands, predicated on a qualification in turn related to wage grades determined through collective agreements, unlike the English bricklaying qualification which is not a prerequisite for labour market entry and has no clear link to collectively agreed rates (Clarke and Gribling 2007). Indeed, a curious disparity is apparent in the English case between:

- (1) Skill levels identified in the collectively agreed rates, with the craftsman at the highest level and the labourer at the lowest and a range of skill rates in between;
- (2) Skill levels pertaining to National Vocation Qualifications, which are also the basis for the Construction Skills Certification Scheme or registration card; and
- (3) Skill levels as recognised through the rates paid in practice in the labour market.

The bricklaying qualification in England is essentially skill-based, broken into units which describe particular activities and tasks, known as 'elements of competence' and representing learning outcomes. These units at the same time constitute occupational standards derived from analysis of workplace tasks, making for difficulties in disentangling learning outcomes, performance criteria and occupational standards, given that each refers to particular workplace activities. The qualification too is split into three elements - the college curriculum-based technical element, drawn from occupational standards; functional skills; and employment rights and responsibilities - with the NVQ itself gained through work experience. However, given that each NVQ level is stand-alone, it does not presuppose the lower level and is not therefore necessarily based on progression. This weakness in progression is inevitable, given that the qualification is built on output and performance in the workplace rather than on the development of the individual.

The notion of competence development applied in many continental countries - drawing on multiple resources involving the whole person and enabling learners to become autonomous and innovative - does not apply in the same way in the English situation. Here lifelong learning in practice constitutes the accumulation of skills in relation to particular jobs or tasks, rather than a more holistic career development which includes professional as well as personal growth. An important aspect of the English qualification is the relationship assumed between theoretical and practical knowledge. In the context of low theoretical content, narrow skills and lack of general education, people tend to perform to standards defined by employers and other dimensions of competence, such as social and personal competencies, are neither required nor recognised.

Scope of the occupation

The second issue is the *breadth* of the occupation, a dimension not addressed directly by the EQF but of critical importance to the development of mutual trust and to implementation. The scope of operations of bricklayers is relatively narrow in England, confined to a restricted range of tasks, focussed on outputs and performance, with restricted transferability and permeability, especially as many elements - though these may be needed in the workplace - are no longer covered, including erecting arches and stonework, and as progression above NVQ Level 3 is much more difficult than in the past.. A key problem in the English case is that bricklaying remains a 'trade' focussed on performance output rather than being an 'occupation' in the sense found in the other countries, incorporated within a wider sectoral and occupational framework and focussed on the capacity to fulfil the wide range of activities this encompasses (Marsden 2007).

Within bricklaying VET in England there is nevertheless a growing contradiction in terms of scope in the division between the school-based and the work-based route associated with apprenticeships. There has been increasing concentration on the former given the difficulties of finding training places with employers. The school-based route, though plagued by high drop out rates and having to traverse the difficult bridge between college and industry, implies, however, in the new Diplomas being introduced at levels 2 and 3, broader underpinning knowledge and a possible reversal of the narrow scope of bricklaying. However, though covering a wider range of activity focussed on sectors, the Diplomas still though maintain a divide between, on the one hand, college-based awards and diplomas and, on the other, the NVQ element.

The governance structure: the stakeholders

The governance relationship built into the English apprenticeship framework is largely between the government, its agents and employers and represents a top-down approach designed to be employer-led and to favour market-based solutions. The exclusion of the trade unions and the further education sector implies no meaningful partnership relationship with those whose commitment is essential to establish ZMTs. This is at odds with the other countries where governance is based on social partnership and encompasses the distinctive interests of young people and those working in the occupation.

The lack of stability, fluidity, fragmentation and confusion of the institutional structure for VET in England is symptomatic of what might be regarded as a weak system, given the ease and speed with which changes in policy are introduced. Ongoing work (Moehler *et al.* 2008) has revealed that the myriad of organisations involved in skills development in construction results in a complexity of networks of supply provision that is difficult for construction companies to navigate. This weakness is compounded by the weak and fragmented nature of the social partners and by the lack of direct Ministerial responsibility for VET. Government policy seeks to create a 'demand-led' system which responds to employers needs at the same time as employers associations fragment and individual employers are reluctant to make training places available. In this situation, in the case of bricklaying, trade associations, defending the specific trade interests of their members, have come to play a key role in determining the nature and scope of qualifications, and indeed whether these should be awarded in the first place. In continental countries with a social market economy the role of trade associations is often taken by industry-wide

employers' organizations which also have a role in the social dialogue between trade unions and employers.

In England the FE colleges have also become the key providers of VET for bricklaying trainees, whether these are apprentices or students on the ever-more important, though unrecognised, school-based route. There is an evident divide between FE and industry, between education and the labour process, one which is hardly bridged by the Sector Skills Council, ConstructionSkills, especially given changes in skill requirements and the development of a school-based route. Each route too into bricklaying - whether purely employer-based, apprentice-based, school-based with work experience, private training provider-based, or simply progressing up from labourer - implies a different constellation of funding. The sources include government, the levy (via ConstructionSkills) and employers themselves.

The danger with such a system, based on and bounded by a 'skills'-based approach, is that it may simply perpetuate a low-skilled labour-intensive economy, as employers continue to build on traditional skills, 'the skills of yesterday', thus restricting the capacity for the development of new skills areas (Clarke and Winch 2004: 515). This is of particular significance in the light of the Leitch Review of Skills (2006), which recognised the crucial importance of upgrading the UK skills base, and of the recent report on the difficulties in progress towards this by the UK Commission for Employment and Skills (2009). The key contradiction in the system is that, whilst such policy initiatives are leading inevitably to establishing a system closer to many continental countries, based on broadly-defined occupations recognised by qualifications at different levels, the way in which the scope, content and remuneration of bricklaying is actually determined remains largely trade-based.

Discussion

In relation to these three areas of difficulty, therefore, disparities are evident which appear to affirm the co-existence of two systems, a traditional trade-based and an occupational one struggling to emerge and develop. This is evident in the institutional structure in England, with the trade associations concerned to reproduce the traditional bricklayer at the same time as the FE Colleges and to a certain extent the industry SSC struggle to produce a broader occupation with a clearly recognised qualification. In terms of qualifications, this disparity is evident between the output and performance-based nature of the NVQ and the newly emerging Diplomas. And in the labour market the traditional bricklayer may find a home in the private housebuilding sector but appears increasingly restricted given the transferable and broad skill sets required in other areas. The situation is by no means static, with policy initiatives stemming in particular from the Leitch Review leading inevitably to establishing a system closer to many continental countries, based on broadly-defined occupations recognised by qualifications at different levels. What implications does this have for implementing the EQF in relation to bricklaying?

References

- Brockmann, M., Clarke, L. and Winch, C. (2008) 'Knowledge, skills, competence: European divergences in vocational education and training (VET) - the English, German and Dutch cases', *Oxford Review of Education* 34(5).
- Clarke L. and Gribling M. (2007) *The Construction Industry in London and Diversity Performance: the example of Terminal 5, Heathrow* Report to London Metropolitan University for Greater London Authority, University of Westminster

- Clarke, L. and Winch, C. (2004) 'Apprenticeship and Applied Theoretical Knowledge', *Educational Philosophy and Theory* 36(5): 509-521.
- Coles, M. and Oates, T. (2004) *European Reference Levels for Education and Training - an important parameter for promoting credit transfer and mutual trust. Final Report*. London, Qualifications and Curriculum Authority.
- European Commission (EC) (2009) *European Glossary: Open Method of Coordination*, europa.eu/cgi-bin/etal.pl
- Leitch Review of Skills (2006) *Prosperity for all in the Global Economy: World Class Skills*, Final Report, December, London: HM Treasury
- Marsden D. (2007) 'Labour market segmentation in Britain: the decline of occupational labour markets and the spread of 'entry tournaments'', *Economies et Société*, No 28, 6, pp 965-998
- Moehler, R., Chan, P. and Greenwood, D. (2008) The interorganisational influences on construction skills development in the UK. In: Dainty, A. R. J. (Ed.) *The twenty-fourth ARCOM conference*, 1 – 3 September 2008, Cardiff, UK, Association of Researchers in Construction Management, volume 1, 23-32.

The Role and Impact of the Main Stakeholders in the Reform of the Initial Vocational Training (VET) in Switzerland Taking into Account Regional and Organizational Specificities

Caroline Meier Quevedo

*Swiss Federal Institute for Vocational Education and Training (SVIVET)
82 av. de Provence, Case postale 192 1000 Lausanne 16*

Summary: Switzerland's new Federal Vocational and Professional Education and Training Act provides for a closer partnership between the Confederation, the Cantons and professional organisations. Within this framework, training plans for upper-secondary level VET programmes are being revised to take into account the new demands of society and the labour market. In this paper, we seek to identify the conditions that facilitate the implementation of a participative approach to governance in this reform process. For this, we focus on the various reform committee configurations that have emerged, seeking to identify the positive or negative impact that these configurations may have when it comes to giving adequate consideration to regional specificities and differences in a given occupational field.

Keywords: participative governance, reform, regional specificities, legitimacy

Introduction

With enactment of the new Federal Vocational and Professional Education and Training Act (VPETA, SR 412.10) in 2002, a process was set in motion to reform the upper-secondary level VET sector. The purpose of this reform process is to produce competency-based training plans so that VET programmes will be better suited to the needs of society and the labour market. Moreover, the new legal framework establishes a closer partnership between the Confederation – represented by the Federal Office for Professional Education and Technology (OPET) –, the Cantons and professional organisations. This tripartite partnership is responsible for determining the content of training and corresponding qualification procedures.

This paper seeks to analyse the various configurations of reform committees involved in the VET reform process in order to determine to what extent certain configurations may favour or hinder the presence of certain stakeholders, and hence their ability to represent certain interests, in the reform process. Within this context, we shall shed light on the advantages and disadvantages of participative approaches to governance.

For illustration purposes, we shall examine the ongoing VET reform process in the following occupational fields: beauty care, information and documentation, dance and ceramic. In our analysis, we shall seek to determine whether the conditions needed to facilitate the integration of linguistic and occupational specificities are present in the participative governance process.

Description of the decision-making process

The reform process for each occupation lasts four years. To steer the reform process, a reform committee comprised of the main stakeholders in the occupation is formed.

Generally speaking, operational processes are managed by the professional organisation responsible for the given occupation. It is the professional organisation that chooses the members of the reform committee and establishes the content of VET programmes and qualification procedures for the new training plan.

An OPET representative sees to it that general directives are adhered to. A representative of the French-speaking cantons and another representative of the German-speaking cantons are responsible for making sure that costs are kept under control. This is because the Cantons are responsible for ensuring that VET teachers at vocational schools and VET trainers at host companies implement the new training plan. Reform committee members also include VET teachers, VET trainers and representatives of the occupation concerned. Reform committees are one of the main decision-making bodies in the reform process.

Each reform committee submits the new training plan to OPET's Master Plan Committee for approval. OPET's Master Plan Committee is comprised of representatives of the Confederation, the Cantons and professional organisations. Its objectives are to plan the implementation of reforms on the basis of available resources and to ensure that training plans are harmonised.

The stakeholders concerned are therefore consulted on two occasions: the first stage is an internal consultation process involving the professional organisation, VET teachers, VET trainers and the host companies involved before the new training plan is submitted to the Master Plan Committee. The reform committee can make any changes deemed necessary and then a second round of consultation takes place, this time an external one involving all VET stakeholders, the 26 Cantons and other professional organisations. Once the definitive changes have been made, the Master Plan Committee gives its final approval to the new training plan, which may now be implemented.

Reform committee configurations and participative governance

What are the various reform committee configurations and what impact do these configurations have on participative government within reform committees?

By governance, we mean a public management tool designed to render government action more efficient for the purpose of jointly producing public goods and services. Understood from this angle, governance is perceived as a form of multi-stakeholder decision-making. Decisions are no longer made by a single omnipotent person (or group of persons) but rather are the result of consultation and consensus among the various stakeholders.

For Jean-Philippe Leresche (2002), "the notion of governance may be extended to cover any system or structure (public or private) that encounters difficulties managing or governing in a complex environment and faces these difficulties by developing coordination mechanisms to facilitate its actions and their acceptance."

In theory, participative governance is perceived to be a new means of coordinating stakeholders whereby a greater number of people become involved in the decision-making process.

But how are things in reality? Are the stakeholders involved considered to be legitimate and does the consultation process have a real impact on stakeholders in the field? The question of whether professional organisations may be designated as legitimate representatives of a given occupation is valid since reform committees may take on any number of different configurations.

In most cases, reform committees are dominated by professional organisations established in the Swiss German-speaking region of Switzerland. The regional sections of these professional organisations are not represented or not well integrated on the corresponding reform committee. This was the case for reform of the VET programme in beauty care where a lack of motivation was mentioned as the reason why there were no representatives of French-speaking sections on the reform committee. In reality, the obstacle is often a linguistic one. There are no resources available for the translation of working documents, which tends to discourage non (Swiss) German-speaking stakeholders.

Professional organisations on the reform committee may also represent the interests of several occupations. This was the case for the VET programme in information and documentation where a delegation was given the task of representing the interests of librarians, archivists and information scientists. This meant that the delegation had to be comprised of representatives of each of the occupations concerned in order to defend the various interests of each occupation. In this type of configuration, there is greater involvement of VET teachers from the main vocational schools. Working groups were set up at the regional level to involve each occupation in the elaboration of the new training plan.

Professional organisations are often run on a volunteer basis. Managers tend to be people who also have another economic activity on the side. This was the case for the VET programme in ceramic, where ceramists and VET trainers ran the Swiss Ceramic Association on a volunteer basis. These stakeholders play multiple roles and also have limited means at their disposal.

These different configurations illustrate how difficult it is for professional organisations to adequately represent the interests of a given occupation. It is therefore important that an infrastructure be established with the necessary financial and human resources needed to fully integrate the various interests at stake.

Cantonal representatives, for their part, also tend to play multiple roles (VET trainers, representatives of a professional organisation). The question is how to represent the various interests.

The extent of involvement of cantonal authorities depends on whether the canton is French-speaking or German-speaking. In the French-speaking region of Switzerland, cantonal authorities will step in to replace professional organisations that are less well organised, smaller, or less integrated in the reform process. Cantonal authorities are in a strong negotiating position when it comes to deciding how the new training plans will be implemented. However, their involvement in reform committees is limited. In the German-speaking region of Switzerland, professional organisations tend to exert greater influence and cantonal authorities are more actively involved in reform committees.

OPET has not positioned itself as a dominant stakeholder when it comes to establishing workflows. The new Federal Vocational and Professional Education and Training Act is deemed to be an open law. It establishes the structures and rules for the tripartite partnership. Within this framework, however, it is up to the various stakeholders to give a concrete form to the general directives and find solutions that match their needs. The positive consequence of OPET's stance is that it leaves room

for stakeholders to establish content that is suited to the specificities of the occupation. The negative consequence is that professional organisations do not all have the means to assume the great responsibility of governing the reform process. Resources and competencies vary from one professional organisation to another.

What impact does integration or lack of integration of the various interests have on the drafting of new training plans and their implementation?

The integration of regional specificities is facilitated when the representatives of the main vocational schools and professionals are present on the reform committee (e.g. dancers, ceramists, librarians, archivists, information scientists). This integration plays an important role in the implementation of the new training plans in vocational schools and host companies. When professionals from the field understand the nature of the objectives pursued by the reform process, they become actively involved in the process of introducing change. Without this legitimacy, the entire reform process runs the risk of encountering considerable resistance. A truly participative form of governance enables all stakeholders to become involved in the process of establishing training content and considering new pedagogical approaches.

The lack of integration slows the entire reform process down, since stakeholders continue to do what they currently do without adopting the new visions and requirements.

Conclusion. What context requires a participative approach to governance?

We observed a specific context, the VET programme in dance, which required all of the stakeholders to take part in the reform process. Indeed, the creation of a new VET programme forces the project initiators to convince professionals in the field to become involved and this necessity leads to the creation of a participative structure. In this case, dancing professionals wanted dancers to be included in the continuing education and training (CET) sector, which meant that dancers needed to obtain some form of recognised initial qualification. The project initiators brought the stakeholders concerned in to pursue this objective.

In conclusion, what conditions facilitate the implementation of a form of governance that may truly be described as participative? We have identified three conditions:

First of all, everyone involved must clearly agree on the objective to be reached.

Secondly, political, organisational and financial constraints must be taken into account because they have an impact on a professional organisation's ability to establish a truly participative form of governance within the reform committee.

Thirdly, OPET and the Cantons need to provide more information to stakeholders in the field in order to raise awareness of the stakes of the reform process.

References

- Gindroz, J.-P. (2002): Emergence de la notion de champ professionnel : éléments de réflexion. *Panorama*, 2, 16-17.
- Hanhart, S. et Schulz H. R. (1998): La formation des apprentis en Suisse. Coûts et financement. Neuchâtel: Delachaux et Niestlé. Collection Sciences de l'éducation.
- Héritier, M. (2005): Deux regards vers un but commun : quels outils, cadres de références, mettre en place pour promouvoir le partenariat école/terrain ? Lausanne :ISPPF.
- Le Boterf, G. (1998): Evaluer les compétences. Quels jugements ? Quels critères ? Quelles instances? *Education Permanente*, 135(2), 143-151.

- Leresche J.-P (2002): La gouvernance urbaine comme enjeu de la durabilité, Vues sur la ville, n° 3, avril 2002, Lausanne, Observatoire universitaire de la ville et du développement durable, p.4
- OFFT (2008): Manuel relative aux ordonnances, OFFT, Berne
- OFFT (2007): Masterplan Formation professionnelle. Bases et perspectives, OFFT, Berne.
- Tremblay, D.-G. (2000): Vers de nouveaux modes de formation professionnelle? : Rôle des acteurs et des collaborateurs, Presses de l'Université du Québec, Quebec.
- Villiger, D. (1985): La dimension socio-culturelle de la formation professionnelle : histoire, organisation et acteurs dans deux cantons suisses. Université de Neuchâtel, Faculté de Droit et de Sciences Economiques.
- Federal Act of 13 December 2002 on Vocational and Professional Education and Training (Vocational and Professional Education and Training Act, VPETA)
- Ordinance on of 19 November 2003 Vocational and Professional Education and Training (Vocational and Professional Education and Training Ordinance, VPETO)

Pathway Planning: Examining the Benefits and Outcomes of a Traineeship and Apprenticeship Pathway Program

Martin Stalker and Thao Le

*University of Tasmania. Launceston Campus, Building A, A220b,
Locked Bag 1307 Launceston Tasmania 7250, Australia*

Summary: The “Tasmania: A State of Learning” structures were borne from widespread discussion with the Tasmanian community. At High School level, a major component of this initiative is guided by legislation introduced in 2005. This was a response to the communities overwhelming support which requires all students exiting Grade 10 to participate in training and learning. Utilising the strengths of new structures a partnership developed between the Tasmanian Polytechnic and Government High Schools to compliment student vocational interests and target skills shortage areas within the Australian workforce. This innovative program has drawn plaudits from all key stakeholders due to the unique pedagogy in this industry/training/high school educative model. The program has been so popular that schools have dedicated Traineeship and Apprenticeship Pathway Program curriculum timetables. This paper examines the outcomes from the program and the schools results on student involvement from attitudinal and academics perspectives.

Keywords: Innovation, Industry Partnership, Traineeship and Apprenticeship, Pathway Program

Introduction

Tasmania has introduced a network of strategies to increase the opportunities for all groups within the community to extend their education standards. The key component for High School age students within this blueprint was the introduction of legislation (Youth Participation in Education and Training [Guaranteeing Futures] Act 2005). This lifted the expectations of all year groups after and including the exiting 2007 Grade 10 year group. Students are now required to continue training or education in some form post Grade 10 in accordance with the legislation guidelines. Employment opportunities are clearly enhanced with post compulsory education as OECD research affirms “further education – whether it is just completion of upper secondary education or non-tertiary education beyond that level – offers significantly increased chances of accessing skilled occupations within a short time after leaving school”. Sentiments which are highlighted when the “national employment rate for 25 - 29 year olds with an upper secondary education or post secondary non-tertiary education is 22.9% higher than those who are without an upper secondary education” (‘From education to work: a difficult transaction for adults with low levels of education’ 2005). The challenge faced is to engage students within the curriculum spectrum; one of the keys to raising Year 12 completion rates must be wider curriculum choice to allow a wider range of adolescent’s developing personal and vocational interests to be satisfied (Sweet 2002).

This discussion examines how effectively this strategy harnesses the full potential of the student cohort with the education system now embracing pathway planning in each Government High School across Tasmania. The paper examines how effective is the current structure in creating an awareness of the opportunities for young people in relation to this educational route and the potential outcomes post Grade 10.

The intention of the Guaranteeing Futures policy is to encourage students and create an awareness and understanding of the rewards associated with participation in education and training beyond post compulsory schooling. Research consistently indicates that young people who participate in education and training beyond Year 10 broaden their horizons and more easily take part and benefit from life's opportunities; this is clearly summarised by OECD research "further education – whether it is just completion of upper secondary education or non-tertiary education beyond that level – offers significantly increased chances of accessing skilled occupations within a short time after leaving school" ('From education to work : a difficult transaction for adults with low levels of education' 2005, P 53). Those who do not are more likely to narrow their opportunities and experience difficulties in adulthood.

The Guaranteeing Futures focus has many components within its framework which have been developed to provide resources to assist with the transition from Grade 10 into the next phase of a student's journey. Pathway planning is a major support structure within the Guaranteeing Futures umbrella. The pathway planning model is envisaged to be an instrument providing an integrated opportunity for students to "plan, prepare and make informed choices about their post-school destination" (Department of Education, Tasmania, 2003). Legislation introduced to support this vision from 2008 now requires young Tasmanians who have turned 16, or completed Year 10, to participate in training or education for

- a further two years, or
- until they have gained a Certificate III vocational qualification, or
- until they have turned 17.

To assist this "raising of the bar" a varied and diverse a set of innovative strategies provide scaffolding that seeks to support all members of the student cohort.

The key to the pathway planning process is the relationship that is developed and cultivated between the student and the pathway planning officer. The value of the one-to-one conversations that a Pathway Planning Officer can engage a student in are vital to creating the understandings that assist students to move towards informed vocational choices. The completed pathway plan is then presented to parents along with the traditional school report at the end of the year.

Traineeship and Apprenticeship Pathway Program (TAPP)

The original Traineeship and Apprenticeship Pathway Program began in 2005 in Launceston, Northern Tasmania. The program had 18 students from which 17 had gained apprenticeships at the end of the year. The program was adopted across the state and has seen exponential growth. In the North West of Tasmania the number of hours that schools have requested for student training at Tasmanian Polytechnic facilities to support the program have grown from 2,300 hours at inception in 2006 to 41,500 initially projected hours in 2009. The original subject offerings for students in 2009 were from 15 vocational areas –

- | | |
|---------------------------|-----------------------|
| - Carpentry & Joinery | - Children's Services |
| - Drafting | - Automotive |
| - Electro technology | - Horticulture |
| - Business Administration | - Motorbody |

- Hospitality
- Metals
- Agriculture
- Hair & Beauty
- Cookery
- Enrolled Nursing
- Tourism / Retail

The structure allows for students to continue their traditional core High School curriculum but includes the option of an extended experience in one of the above targeted vocations. The Polytechnic technical training component of the program runs for approx 26 weeks. The Polytechnic component aligns with a work placement within the vocational area for one day a week. The students involved have a core curriculum commitment the same as students not participating in TAPP whilst in school on the remaining 3 days. The result of this movement dynamic is that the TAPP class numbers will rise and fall depending on the day that the Polytechnic offers technical training in the vocational area and also the day that the employer has preferred for the student to have a work experience. This creates a series of individual based learning “mini curriculums” occurring within the class.

With compelling research emphasising the value and benefits of continuing education and training, the TAPP program has effectively provided this option in clear and defined areas of national interest. Classroom discussion is centred around workplace experience and intrinsic motivation is raised due to the heightened relevance of the traditional curriculum. The level of students moving in to apprenticeships from the program is also very good. Data from one schools 2008 TAPP cohort had a rate of movement to apprenticeships at the end of the year was 24 from 28 students. Students readily move in to School Based Traineeships (SBT) whilst in the program, SBT’s equate to approximately half completion of a traditional apprenticeship over the same period yet allow the student to continue to complete their core curriculum. Students become employees of the company and are entitled to superannuation and standard workplace entitlements the same as a traditional apprentice or trainee.

Methods and research design

The research methodology has been of an ethnographical nature, within my research is a collation of qualitative and quantitative data.

The qualitative information has been collected in the form of anecdotal comments from key stakeholders within the program structure to provide an holistic, diverse and accurate reflection of vocational programs. The key TAPP stakeholder groups being – Polytechnic teachers, High School teachers, parents, Principals, employers and students.

Qualitative data supporting the research looks at participation increase, training and apprenticeship course growth, comparison of literacy and numeracy results of students involved in vocational experiences relative to those not involved.

The software used for the analysis is NVivo, SPSS and Excel to extrapolate the findings within the collection.

Conclusion

The pathway planning process has certainly created much spirited discussion amongst stakeholders. It would be fair to view that the process has received support at this early stage however the benefits to the student cohort will not be seen for

some time yet. The strategy appears to be well thought out and could present the impetus to provide solutions to some of the post compulsory education issues.

The success of the TAPP program is to some degree due to the Pathway Planning catalyst. The ability to engage students in preferred vocational directions within authentic structures and also provide nationally accredited qualifications is a powerful combination. Student interest is high at class level and Polytechnic teachers consistently acknowledge that the level of commitment is at least the equal of adult counterparts. To this end the Pathway Planning Process has supported the TAPP concept very well and the coming years will determine the effect that this work will have upon the Tasmanian workforce. A statistic that is a powerful endorsement of the program is pointed out in a paper Squandered Opportunity by Emerson and Rankin stating a staggering 60 per cent of 15-25 year-olds who left school before finishing year 10 are not employed. The unique structure of TAPP not only identifies key skill shortage areas within the national workforce but also tackles many underlying social issues.

References

- Australian Chamber of Commerce Industry (2007a): ACCI Education and Training Survey - Flexibility and Choice Needed (pp. 9).
- Australian Chamber of Commerce Industry (2007b): *Skills for a nation : a blueprint for improving education and training 2007-2017*. Barton ACT: Barton ACT: Australian Chamber of Commerce and Industry, 2007.
- Curtis, D. D., & Australian Association for Research in Education, C. (2007): *Post-compulsory VET sector participation : who benefits?* , from <http://www.aare.edu.au/06pap/cur06195.pdf>
- Dawe, S., Nguyen, N., & National Centre for Vocational Education, R. (2007): *Education and training that meets the needs of small business : a systematic review of research* (No. 9781921170850 9781921170911). Adelaide: NCVER, 2007.
- Emerson, C., & Rankin, M. f. (2006): *Squandered Opportunity*. Paper presented at the Making the Boom Pay. from <http://www.melbourneinstitute.com/conf2006/confpapers.cfm>
- Evans, N. (2006): 'Tasmania is guaranteeing futures for young people', *Vocal : The Australian Journal of Vocational Education and Training in Schools*, vol. 6, pp. 30-35.
- 'From education to work : a difficult transaction for adults with low levels of education', 2005, in D Organisation for Economic Cooperation and & N Canadian Policy Research (eds), (*SourceOECD Education and skills*), Paris: Organisation for Economic Co-operation and Development [and] Canadian Policy Research Networks, 2005.
- Halse, C. (2004): 'Striving for balance : Australian perspectives on the future of schooling', *International Journal of Educational Research*, vol. 41, no. 7, pp. 523-533.
- Noonan, P., Australia. Dept of Education, S., Training, & Australian Industry, G. (2007): *Skilling the existing workforce : background research paper*. Canberra: Dept of Education, Science and Training, 2007.
- Queensland. Dept of Education and the Arts, Brisbane, 2004,
- Rossmannith, A. (2006): 'Stand by me', *Australian Educator*, no. 50, pp. 14-17.
- Sweet, R. (2002): 'Youth pathways in an international spotlight', *Vocal : The Australian Journal of Vocational Education and Training in Schools*, vol. 4, pp. 5-7.
- Tasmania. Dept of, E 2003, 'Tasmania : a state of learning : a strategy for post-year 10 education and training', in T Tasmania. Office of Post-Compulsory Education and (ed.), Hobart: Tasmania. Dept of Education, 2003.
- Woods, D., & National Centre for Vocational Education, R. (2007): *The role of VET in helping young people's transition into work : at a glance*. Adelaide: NCVER, 2007.

Differences in the Organisation of Apprenticeship in Europe: Findings of a Comparative Evaluation Study

Felix Rauner

I:BB Research Group, University of Bremen,
Leobener Str. / NW 2, 28359 Bremen, Germany

Summary: On the basis of a theoretical framework for the evaluation of the governance and support systems quantitative and qualitative assessment of the VET systems was carried out by national experts in 2008. This international comparative study initiated by the Bertelsmann Stiftung brought to light the prevailing differences in the dual VET systems of four European Countries and lead to various recommendations among others to modernise occupational profiles towards open European core occupations. The study further recommends a consistent legal framework regarding the cooperation of learning venues and the establishment of an evaluation and feedback scheme in the shape of an assessment along the training process. In order efficiently co-ordinate VET practice, VET policy and VET research, the establishment of a “VET innovation system” is suggested.

Keywords: Governance of TVET in Europe, international comparative study

Introduction

In international comparative vocational education and training research the countries with a well-developed dual system of vocational education (apprenticeship system) are typically grouped as *one* type of vocational education. The differences that actually exist between the dual VET systems of Austria, Denmark, Germany and Switzerland often escape attention. One indicator for the variety of the systems is the transition rate from the school into vocational education (Fig. 1).

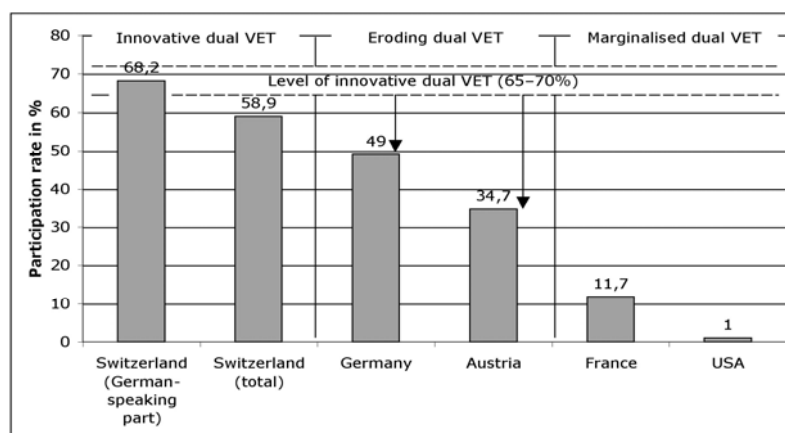


Figure 1: The erosion of dual VET (proportion of trainees in dual VET among the total number of participants in upper secondary education) (OECD 2005; BBT 2006)

The remarkable discrepancies in the attractiveness of these apprenticeship systems for school leavers and training companies prompted the Bertelsmann Stiftung to initiate a study to compare the dual VET systems of the four countries at the level of their systemic structures and governance patterns.

Methods and research design

The following two research instruments were applied in the comparative study:

1. Country studies: In accordance with a common structure country reports were prepared. They provided an empirical basis for the comparative analysis and evaluation.
2. Expert evaluation workshops: On the basis of a theoretical framework for the evaluation of the governance and support systems quantitative and qualitative assessment of the VET systems was carried out by national experts (Bertelsmann Stiftung 2009).

Results

Four key results of the study that are relevant for the quality of the dual organisation of vocational education and training shall be presented in this contribution.

Differences in the plural governance of dual VET systems

When a distinction between input and output-oriented governance as well as between coordinated and fragmented governance is applied in the evaluation of VET management, what becomes clear is that Germany is the only among the four countries to have a fragmented input-oriented governance system in VET. The fragmentation of the governance and support system is relatively strong. The prerequisites for the coordination of the relevant actors and institutions are absent. In the first place this is a structural weakness of the German VET system. The problem is intensified by an input oriented mode of governance that lays emphasis on formal rules and their implementation, which considerably limits the opportunities for the autonomous design and organisation of VET at the local level.

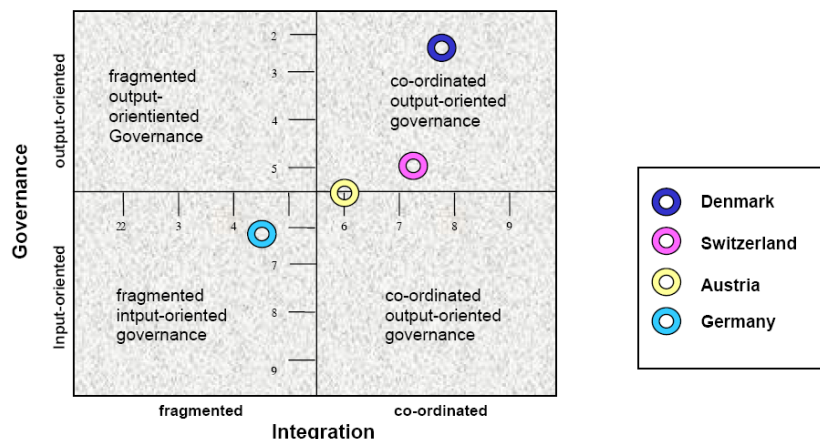


Figure 2: Governance of dual VET systems in Austria, Denmark, Germany and Switzerland (cumulative results)

Denmark and Switzerland, on the other hand, have more (DK) or less developed (CH) systems of coordinated output-oriented governance. When this result is further differentiated one can see what the specific reasons for the shortcomings of the governance structures in German VET are.

Divergent concepts of curriculum development

The curriculum development in Germany (and Austria) is characterised by a high degree of specialisation as shown by the figure of approximately 500 dual and school-based training occupations. On the other hand there are only roughly 200 comprehensive occupational profiles in Switzerland and ca. 100 in Denmark. According to the principle of subsidiarity these broad profiles are implemented and specified in the local and regional VET dialogue, taking into account the practice-oriented training potential of local enterprises (Fig. 3).

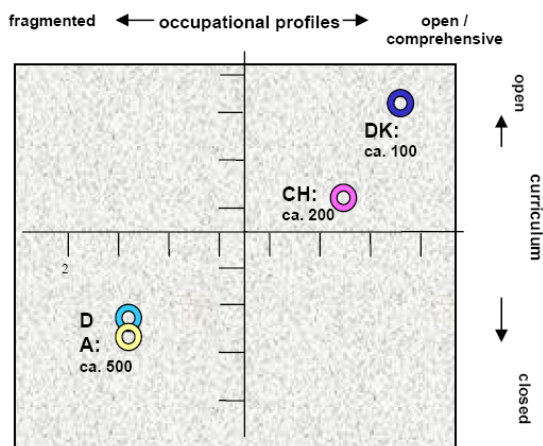


Figure 3: Structure of occupational profiles and curricula in Austria, Denmark, Germany and Switzerland

In Germany there is a tendency of the social partners at the national level and of the responsible public body (Ministry of Economics) to define specialised occupation and to differentiate occupational profiles according to subjects, modules and other curricular categories, thereby further promoting the input orientation in vocational education.

Different assessment systems and their effects

The system of single, isolated examinations in the shape of an intermediate and a final examination leads to a persistent weakening of the trainees' competence development.

In Denmark and Switzerland the continuous evaluation of dual training programmes is highly developed. The vocational schools in Denmark even assume a managerial and coordinating function. Above all the Danish and Swiss examination systems avoid a reduction of the assessment to one or two single examination dates.

This reduction of the performance assessment or the evaluation of professional competence development is a considerable structural problem for the organisation and design of vocational learning processes. Especially in the interval between the intermediate and the final examination a systematic feedback on the development of professional competence is missing. A crucial element of competence development is thus absent.

Differences in the dual organisation of vocational training

The underdeveloped cooperation between the learning venues is one of the Achilles' heels in the German dual VET system. Due to the fact that the learning venues "company" and "school" belong to different legal spheres the vocational school has become the junior partner in vocational education (Fig. 5).

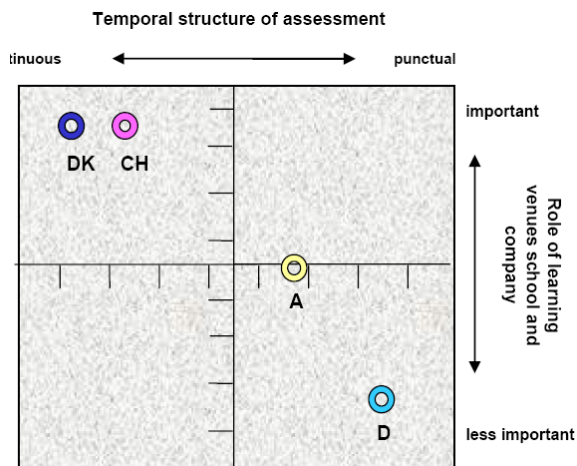


Figure 4: Assessment systems (temporal structure and role of learning venues) in comparison

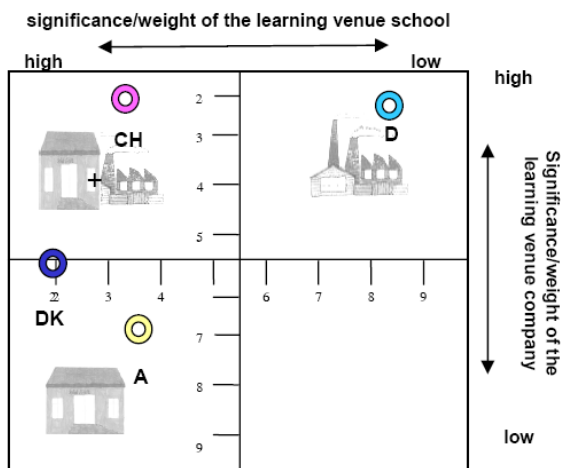


Figure 5: Structure and organisation of VET in Austria, Denmark, Germany and Switzerland

In Denmark and Switzerland the cooperation of learning venues is based on a single legal framework and an advanced coordination and support structure at the national, regional and local levels.

To this date the negative effects of the underdeveloped cooperation of learning venues in Germany for the trainees' achievements have been underestimated. This is shown by a survey of 1,600 trainees. Two thirds of the apprentices rated the cooperation and coordination between company-based training and school instruction as little effective or not effective.

Impeded transition from school to vocational education (first threshold) in Germany

The average age of VET trainees in Germany is considerably higher than in the other countries with a dual VET system. The reason is that since some decades the transition from school to vocational education is rendered difficult by various obstacles. The neighbouring countries give examples of how a well-functioning transition from school to vocational education can be organised.

Conclusion and recommendations

- Modernisation of occupational profiles: open European core occupations and the relocation of the specification of occupational profiles by means of syllabi to the local level.
- This requires a new division of tasks in the management of vocational education according to the principle of subsidiarity: a strengthening and concentration of strategic competences at the national level and of the operative management tasks at the regional and local levels.
- The dual organisation of vocational education, more specifically the cooperation of learning venues, needs a consistent legal framework. The vocational school must play a responsible part in vocational education.
- This requires the establishment of an evaluation and feedback scheme in the shape of an assessment along the training process (extended examination) throughout the entire training period.
- Establishment of a “VET innovation system” in which VET practice, VET policy and VET research mutually support each other.

References

- Bertelsmann Stiftung; Rauner, F. (Hg.) (2009): Steuerung der beruflichen Bildung im internationalen Vergleich. Gütersloh: Verlag Bertelsmann Stiftung.
- BBT (Bundesamt für Berufsbildung und Technologie) (2006): Berufsbildung in der Schweiz 2006. Fakten und Zahlen. Bern: Bundesamt für Berufsbildung und Technologie.
- OECD (Organisation for Economic Cooperation and Development) (2005): Education at a Glance 2005: Indicator C2: Participation in secondary and tertiary education.
<http://www.oecd.org/dataoecd/49/19/35311921.pdf> (Zugriff: 13.08.2009)
- Rauner, F.; Smith, E. (2009): Rediscovering Apprenticeship. Springer, Dodrecht.

'Employability and Employment' – Innovative Policies and Measures in the German TVET Cooperation

Michaela C. A. Henn and Klaus Meininger

*Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH,
Postfach 5180, D- 65760 Eschborn*

Summary: Innovations and traditions of German TVET cooperation with developing countries are reflected in the BMZ sector papers and in the practice of Germany's Technical Cooperation. School to work-transition and (youth) employment are topics high up on the development agendas. The strong labour market and work process orientation of German TVET is known for showing good results regarding employability and employment prospects of graduates. TVET facilitated employment outcomes can be assisted by additional information, guidance, orientation, and placement services. Drawing from scientific research and project documentations, this paper highlights those innovations in German TVET cooperation which are explicitly dealing with transition measures. It gives two examples of innovative vocational orientation 'tools' which are facilitating the transition from general compulsory education into TVET in Chile.

Keywords: German TVET Cooperation, Transition Measures in Developing Countries, Vocational Orientation, Career Guidance

Introduction

Technical and vocational education and training (TVET) traditionally plays a significant role in German Development Cooperation (DC), given its size in relation to other policy sectors, its 50 year history and its subjection to scientific research (Georg 2005). Germany is still by far the biggest bilateral partner for TVET cooperation with developing countries (Krammenschneider & Haebig 2005). In particular 'dual' or 'cooperative' forms of TVET are often perceived as *the* German approach and the demand for technical cooperation with Germany in this sector continues to be high. The majority of TVET Technical Cooperation projects essentially follow a cooperative approach (Meininger & Schmidt 2002).

Innovations as well as traditions within the German TVET Cooperation are reflected in the Sector Strategy (BMZ 2005b) issued by the Federal Ministry for Economic Cooperation and Development (BMZ)¹. The BMZ sector strategy "Technical and Vocational Education and Training and the Labour Market in Development Cooperation" (BMZ 2005b) and the BMZ publication 'Vocational Education and Training in Development Cooperation' (BMZ 2005a) are shaping the current German TVET cooperation with developing countries².

¹ The BMZ TVET strategies of 1969, 1986, 1992 and 2005 established programmatic directives for all official development cooperation in the TVET sector policy and in areas, in which TVET serves as a cross-cutting theme to support development goals in other sectors such as health, food security and agriculture, democracy, civil society, public administration and others.

² Please see Arnold 2006 for a deeper reflection on the new sector papers for German TVET Cooperation. For further analysis of global and sector specific developments please see Georg 2006, Haebig & Krammenschneider 2005, Meininger & Schmidt 2002, Wallenborn 2007 and 2006.

Difficult school to work-transition

Policy makers in many countries are concerned about high rates of youth unemployment and underemployment. According to statistics of the International Labour Office (ILO) youths aged 15 to 24 years in 2007 accounted for more than 40 percent of the world's total unemployed, although they made up only a quarter of the total working age population; youths in average are three times as likely to be unemployed than adults (ILO 2008)³. The relative disadvantage of youths in the labour market differs greatly from one region to the next and is more pronounced in developing economies, where youths are almost four times more likely to be unemployed than adults (ILO 2004, 2008), and less pronounced in countries where cooperative forms of initial TVET play a significant role (Rauner 2007).

With the Declaration of the Millennium Development Goals in 2000 poverty reduction became the overarching goal of international and German development cooperation. The first priority area in the German Program of Action 2015 is therefore "Boosting the economy and enhancing the active participation of the poor" by following strategies aimed at broad-based and employment-based growth which offers the poor a way out of income poverty (pro-poor growth). Much attention has been given to 'employment promotion', 'school to work-transition', and 'career guidance'. The Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH conducted unpublished explorative research in ten countries⁴, which revealed a tremendous lack of information, orientation, guidance and placement services for young school leavers. Young people from low socio-economic backgrounds and women, in particular, have insufficient access to information about existing education, training and employment opportunities. They often take decisions about their future careers without knowing options and alternatives. The consequences are high drop out rates, frustration, inactivity, and long term negative effects on their occupational and personal development (GTZ 2004). Public and private investments in TVET become more effective when enhanced by assistance for young people - at least - in two crucial transition phases from a) general compulsory education to TVET or to general secondary and higher education and from b) education and training to the labour market.

Both BMZ sector papers explicitly provide "vocational orientation", "labour market information systems" and "placement services" as measures for a improved harmonisation of the education sector and the labour market (BMZ 2005a). The Strategy Paper (BMZ 2005b) combines TVET with active labour market measures "to bridge the gap between employability and employment" with the overall goal "to help safeguard and increase productive employment" (BMZ 2005b).

Examples for innovative transition measures in Chile

With the support of the German Technical Cooperation Chile's inter-ministerial lifelong learning and training program "Chilecalifica" has adopted two innovative German instruments to assist the professional orientation of school students. These

³ Unemployment figures are a 'tip of the iceberg'-indicator. Easy to measure, however not reflecting the numbers of discouraged, inactive youths, those who are voluntarily staying in education and training, unpaid family workers, and other young people in precarious employment etc.

⁴ Bosnia-Herzegovina, Chile, China, Egypt, El Salvador, India, Kosovo, Macedonia, Serbia-Montenegro and Ugands.

were the interactive multimedia tool “Joblab©”⁵ and the “Seal of Approval”⁶ or “Quality Seal”/ “Sello de Calidad” for school based vocational orientation services developed by the Bertelsmann Foundation.

Joblab Chile

After years of successfully reforming the TVET sector in Chile there was a growing awareness that the creation of good quality education and training opportunities would not automatically increase social demand for these courses. 80 percent of the Chilean students and their parents believe – even just prior to graduating - that they would continue into higher education. But only one third of each cohort actually manages to enter university. There were only a few information and guidance services offered at schools or in youth centres, which were only providing information for academic careers. The public employment offices had no services suiting the needs of the young target groups.

The Chilean-German project ‘Vocational Orientation and Career Choice Preparation for Chilean Youth’ started in 2004 to adapt the German Joblab©⁷ software and to create a target group and labour market oriented gender sensitive information and orientation tool. A target group analysis identified the information and orientation needs of the students as well as relevant stakeholders. Another study traced the graduates of technical secondary schools. The results enabled the project to link education and training courses with realistic occupational profiles of the labour market. Audio-visual presentation of contents is attractive to students and gives authentic and vivid insight into the world of work. The self-assessment tools on the CD-Rom had to be revised and adapted. A common structure for the presentation of secondary and post-secondary TVET opportunities had to be developed. The software comprises several modules, which allow for different entry points to the information according to the young users prior knowledge and needs. It contains a “testing room” where the students are guided to define their individual profiles via self assessment and a simulation which helps them explore how to finance post-secondary education. The software is designed to be used by students themselves. Due to financial limitations, the first 10.000 copies were given to counsellors and other guidance practitioners in schools, Municipal Labour Information Offices and youth centres, who all received training in using the tool for vocational orientation purposes. Schools were encouraged to copy the CD and distribute it to students and parents. The tool was very well received by both the target group and the ‘mediators’ in schools, labour offices and youth centres. The impact assessment by project personnel and an evaluation by an independent institute showed very good results. Almost four years after the end of the project, Chilecalifica issued the second version of the software in June 2009. An online version is underway.

The Seal of Approval for Vocational Orientation in Chile

Another example of improvement in vocational orientation and guidance services for students in compulsory education is the “Sello de Calidad”/ “Seal of Approval”/ “SIEGEL®” Chile. Originally initiated by the Bertelsmann Foundation in 2000 to improve vocational orientation services in general lower secondary schools in

⁵ Joblab© was developed by JOBLAB & Diversity. See also www.joblab.de

⁶ For further information on the Seal of Approval/ „Berufswahl-SIEGEL“/ „Sello de Calidad“ please see http://www.bertelsmann-stiftung.de/cps/rde/xchg/SID-6ADBADC-80FA01ED/bst_engl/hs.xsl/prj_8231.htm and <http://www.netzwerk-berufswahl-siegel.de/>.

⁷ Up to now, more versions of this tool have been adapted for China and El Salvador.

Germany, it soon became attractive for the Chilean-German Development Cooperation. Chilecalifica adapted it to the Chilean context and is integrating it into the regular quality management of educational institutions.

The Seal is essentially a first step into quality management of schools and works like this: A coordinator invites stakeholders from the education sector, the employment offices, the private sector and others to an inter-sectoral working group (the "jury"). This working group details general quality criteria for such measures and invites all schools of a given region or administrative area to present their programs and activities. Of course, quality criteria are flexible but the sets of criteria developed in the participating regions in Germany turned out to be very similar. Schools are submitting reports about their vocational orientation activities. These applications are assessed by the jury. Schools that have passed the written assessment are visited by jury members for an audit, where teachers and students are met.

Most often the process ends with a public event when the certificates are handed out and the schools have the opportunity to present their work to a wider audience and to the media. In many cases SIEGEL[®] work does not stop here but counselling or coaching is offered to the schools, especially to those which were not successful. Three years after the certifications, schools apply for a renewed certificate ("Re-certification"). The criteria are tightened and questions raised in the first round have to be answered satisfactorily by the school.

Conclusion

The strong labour market and work process orientation of German TVET Cooperation continues to be a good means to increase graduates' chances to translate qualifications acquired into existing employment opportunities in the labour market. However, the efficiency and effectiveness of education and training can and sometimes needs to be enhanced by additional information and guidance services, which allows a 'client' of education and training to make informed and wise decisions with regard to educational pathways and occupational developments, and enhance access to quality general, TVET and higher education opportunities and to employment. There is much, that can be gained by vocational orientation, if it avoids the mere marketing of certain courses and pathways by providing access to information and services which enable young school leavers to assess their situation and to make (and revise) their decisions (Nagels 2005).

References

- Arnold, R. (2006): Die ‚Entdeckung‘ des Arbeitsmarktes in der internationalen Berufsbildungszusammenarbeit: die neuen sektorpolitischen Vorgaben kritisch-konstruktiv gesichtet. In: Zeitschrift für Berufs- und Wirtschaftspädagogik.-102 (2006), H. 3, 444-454.
- Atchoarena, D. (2000): The Transition of Youth from School to Work: Issues and Policies. New trends in technical education and training series of the by the UNESCO International Institute for Educational Planning (IIEP), Paris.
- Bauer-Schroeder, M, Butz, B., Drescher, H., Hübner, M., Lexis, U. (October 2005): Unverzichtbare Qualitätsmerkmale guter Berufsorientierung nach dem Verständnis des Netzwerks Berufswahl-SIEGEL. <http://www.netzwerk-berufswahl-siegel.de/standards.0.html> (June 2009).
- Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung/ BMZ (2005a): Berufliche Bildung in der entwicklungspolitischen Zusammenarbeit. BMZ Positionspapier/ BMZ Spezial 122.
- Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung/ BMZ (2005b): Technical and Vocational Education and Training and the Labour Market in Development Cooperation. Strategy Paper 140.

- Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung/ BM/ (2001):
Armutsbekämpfung – eine globale Aufgabe. Aktionsprogramm 2015. Der Beitrag der
Bundesregierung zur weltweiten Halbierung extremer Armut. Bonn.
- Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (2004): GTZ's Cooperation in
Technical and Vocational Education and Training. Information brochure, Eschborn.
(<http://www2.gtz.de/dokumente/bib/04-0324.pdf>).
- Georg, W. (2006): Berufsbildung in Entwicklungsländern. In: Arnold, R., Lippsmeier, A. (Ed.),
Handbuch der Berufsbildung, zweite Auflage, VS Verlag für Sozialwissenschaften, Wiesbaden,
509-530.
- Georg, W. (2005): Berufsbildungsforschung in der Entwicklungszusammenarbeit. In: Rauner (Ed.),
Handbuch der Berufsbildungsforschung, W. Bertelsmann Verlag GmbH & Co. KG, Bielefeld, 95-
101.
- Greinert, W.-D., Heitmann, W., Stockmann, R., Vest, B. (1997): Vierzig Jahre
Berufsbildungszusammenarbeit mit Ländern der Dritten Welt. Die Förderung der beruflichen
Bildung in den Entwicklungsländern am Wendepunkt? Deutsche Gesellschaft für Technische
Zusammenarbeit (GTZ) GmbH (Ed.), Studien zur Vergleichenden Berufspädagogik, Band 10,
Nomos Verlag, Baden-Baden.
- Haebig, M., Krammenschneider, U. (2005): Internationale Berufsbildungsförderung im Wandel: eine
Betrachtung aus Sicht der Technischen Zusammenarbeit. In: Berufsbildung in Wissenschaft und
Praxis: BWP. -34 (2005), H. 1, 21-25.
- International Labour Office/ ILO (2004a, 2006, 2008): Global Employment Trends for Youth, Geneva,
Switzerland.
- Loewen, B./ Overwien, B. (2005): Jugendliche stärken – Entwicklungspolitische Ansätze und
Perspektiven für Bildung und Beschäftigung, IKO Verlag für interkulturelle Kommunikation,
Frankfurt am Main/ London.
- Meininger, D., Schmidt, P.-M. (2002): Entwicklungszusammenarbeit auf dem Gebiet der beruflichen
Bildung. In: Wirtschaft und Berufserziehung : W&B, -54 (2002), H. 12, 16-20.
- Miller, J. V., Vetter, Louise (1996): Vocational Guidance for Equal Access and Opportunity for Women
and Girls in Technical and Vocational Education. UNEVOC Studies in Technical and Vocational
Education No. 6, 1996.
- Nagels, K. (2005): Sich zurecht finden lernen. Berufliche Orientierung für Jugendliche. In: Loewen and
Overwien, 2005, Frankfurt am Main/ London.
- Organisation for Economic Co-operation and Development/ OECD (2004): Career Guidance. A
Handbook for Policy Makers.
http://www.oecd.org/LongAbstract/0,3425,en_2649_39263294_34060762_1_1_1_1,00.html.
- Rauner, F. (2007): Duale Berufsausbildung: Qualität rechnet sich. Speech from 22.02.2007.
Source:[http://www.ibb.uni-bremen.de/fileadmin/user/Arbeitstagung/Rauner_Vortrag22.02.2007
IBB2010.pdf](http://www.ibb.uni-bremen.de/fileadmin/user/Arbeitstagung/Rauner_Vortrag22.02.2007_IBB2010.pdf) (24. June 2009).
- Wallenborn, M. (2007): Die Aufwertung der beruflichen Bildung in der Entwicklungszusammenarbeit.
In: Berufsbildung in Wissenschaft und Praxis: BWP. -36 (2007), H. 6, 47-50.
- Wallenborn, M. (2006): Ist Berufsbildungszusammenarbeit (BBZ) altmodisch? In: Zeitschrift für Berufs-
und Wirtschaftspädagogik. -102 (2006), H. 1, 143-148.

Mubarak -Kohl Initiative for Dual System (MKI- DS) – The Case of Egypt. Successful in Reforming the TVET System and Shaping the Society

Edda Grunwald and Bernhard Becker

GTZ/MKI-vetEP, 4 D El Gezira Street, 11211 Zamalek, Cairo, Egypt

Summary: The Mubarak-Kohl Initiative for Dual System (MKI-DS), which started in 1994 as Egyptian-German Technical Cooperation Programme, is now an Egyptian owned and managed programme, with governance and implementation through private and public sectors. Secondary technical education students attend formal schooling under the Ministry of Education twice a week plus work and learn in the workplace four days a week. Recent tracer studies of MKI-DS-graduates show demonstrable impact on the development of vocational identity among young people. Results show impact on current employment, career plans, job selection, labour market knowledge and job search behaviour. MKI-DS equips graduates with the confidence to make informed choices, negotiate job quality, and work with employers. MKI-DS impact counters prevailing negative cultural perceptions, attitudes regarding the labour market and increases opportunities for ongoing employment. The joint governance approach ensures that training is more demand-oriented.

Keywords: Dual system; secondary school; interactive employability

Introduction

School systems have often proved inadequate in terms of transmitting labour market oriented skills, attitudes, behaviour and general know-how that facilitate the transition of young people from the formal education system into the labour force. Evidence suggests that the Mubarak-Kohl Initiative for Dual System (MKI-DS) in Egypt contributes to a better school-to-work transition of graduates.

Egyptian Technical and Vocational Education and Training (TVET) context

In Egypt, 32% of the population is between 15 and 29 years of age. It is expected that (2005 – 2010) 790,000 individuals will enter the labour market annually¹ looking for a maximum of 200,000 jobs each year. Where job vacancies exist, job-seekers are often not well-matched to the vacancies and, labour market information is difficult to access.² Around 80% of those who are unemployed in Egypt are between 15 to 24 years of age. 32% of men and 59% of women in this age cluster have no jobs.³

The overall TVET system in Egypt is largely government-led, very diverse and focussing mainly on educational attainment and certificates. It involves about 22 ministries and agencies. About two-thirds of students in secondary education attend technical secondary schools (TSS). The TSS system is to equip youth with the necessary technical knowledge and skills as preparation for the workforce.⁴ The

¹ El Mahdi A and Roushdy, R 11/2007

² Grunwald E et all 03/2009

³ Assaad, R 2008, p.12

⁴ CID Consulting 03/2009, p.7

majority of TSS graduates have to master the challenge to enter directly into the labour market.⁵ Currently 2.4 million students are enrolled in TSS. However, only 50% of enrolled TSS students successfully graduate and a large proportion of them leave school to go into unemployment.⁶ Despite, the proportion of TSS graduates has increased sharply. The male labour market has become increasingly dominated by TSS graduates who now make up over 30% of the male working age population in both urban and rural areas. An increasing number of women are also TSS graduates (4% in 1988 to 24% in 2006).⁷ Unemployment and unemployability is further exacerbated by attitudes to the labour market and the non-acceptance of certain labour market opportunities which are culturally determined.

The Egyptian cultural context and its impact on young job seekers

Cultural factors cut across the demographics but especially impact young people:

- A belief that certificates improve social status, irrespective of difficulties in vertical mobility in a society which is segregated along class lines. Class corresponds with social status.
- TVET is traditionally seen as 2nd choice education related to employment options which are less valuable in cultural terms (i.e. marriage ability).
- A desire for employment with an opportunity for social advancement.
- A focus on family and a conservative approach to gender issues.
- The centrality of culture as a strong pillar of identity.
- The relevance of their relevance.⁸

Cultural perceptions impact directly on how work is seen. The management and leadership style in Egypt can be described as “control-fear-symbiosis”. Communication, information flow and reflection would be essential steps to break this vicious cycle. Pertinent here is whether MKI-DS contributes to this.⁹

The MKI-DS

MKI-DS started as a bilateral Egyptian – German technical development co-operation programme. It is now a fully and sustainably integrated¹⁰, growing scheme within the TVET system¹¹ under public private co-operation of governance: regional, sectoral coverage, occupational profiles and curricula are designed by joint committees; only then approved by the Ministry of Education. The rights of the state to manage the affairs of the country are recognised, but corporate sector institutions¹² are included in governance structures as an integral part. The concept offers a wide range to realise MKI-DS and accommodates the realities of various sectors, regions and industries. The pivotal aspect of it is that the business sector and MoE both engage in the design of the learning and assume joint responsibility for the outcomes.¹³ In quantitative terms, its achievements include the following:

- 22 out of 27 governorates in Egypt offer the MKI-DS option;
- 76 technical secondary schools participate (as of scholastic year 2008/09);

⁵ Amer M 2007 p.8

⁶ Assaad R 2008, p.31

⁷ DRAFT 2009 EHDR, Chapter on TVET and Youth, p.2 - 3

⁸ Amry S 08/2008

⁹ Amry S 08/2008

¹⁰ Law No. 62/2007 provides the legal framework for MKI-DS.

¹¹ The MKI-DS is legally integrated at the MoE, Decree Nr. 361 of 10.11.2008, with a regular budget.

¹² Those are operative units of the business sector, registered as NGOs and financially sustainable.

¹³ CID Consulting 03/2009, p. 12

- 1 900 companies accommodate and train students;
- There have been 20 000 graduates (13% of them female);¹⁴
- Nearly 13 000 students are currently enrolled;
- 31 occupational profiles have been developed and implemented;
- The growth rate of enrolment in the MKI-DS is rising per year.

The very important impact of MKI-DS, however, is the enhanced transition from schooling to vocational careers building vocational identity and moving technical career choices from a dead-end option to interactive employability.

Apprenticeship: linking interactive employability and job quality

Interactive employability is a pre-requisite for gainful and acceptable employment on the side of individuals (to become and stay employable) and potential employers (be able to employ effectively and retain good recruits). Employers and jobseekers need to be able to exchange information, articulate and consider interests, needs and expectations, and to enter into a dialogue with the intention of reaching a balance of interests which makes the transition from school to workplace optimal for both jobseeker and employer. Inherent in this is agreement about job quality which combines standard-related factors with individual perceptions and expectations of what a good job is¹⁵. The mutual understanding between employer and employee of what each values in the work situation, and the accommodation of both sets of interests, is most likely to result in the desired outcome of improved productivity and improved employment status, to the benefit of both parties.¹⁶

Tracer studies and implications to be recognised

The methodology of the tracer studies

Two tracer studies of MKI-DS have been done (07/2007; 03/2009¹⁷). The 2009-tracer study covered recent graduates from the 2008 MKI-DS batch (2 Governorates [urban – rural]; MKI-DS specialisations: 8; mean age of 18; females divided equally between 2 specialisations; comparison with TSS systems). The 2007-tracer covered 3 graduation groups (1997/98; 1998/99; 2002/3; 3 governorates [urban; peri-urban; rural]; 8 specialisations; m/f ratio 87:13). The sets of figures are not directly comparable.

A shift in traditional approaches to the labour market among MKI-DS graduates

Key areas in which MKI-DS has had an impact to enhancing the traditional TSS:

- Increasing interactive employability;
- Enhancing the relevance of the workplace training;
- Increasing the information flow about the labour market;
- Loyalty to job and vocational identity;
- Commitment to further learning;
- Increased ambition to become either better in a job or increased entrepreneurship.

The studies show: for MKI-DS graduates technical education is preferable to general education because it teaches an occupation, provides early exposure to practical

¹⁴ There are different monitoring sources: conservative figures announce 18,000

¹⁵ www.MKI-VETEP.com

¹⁶ Assaad R 2008

¹⁷ CID Consulting 2007; CID Consulting 03/2009 and 04/2009

experience and increases job opportunities. They think that MKI-DS is preferable to TSS for reasons such as being both theoretical and practical, building relationships between them and the companies, having better curricula, the prestige associated with it and employers preferring MKI-DS graduates and treating them better.

56.2% of the MKI-DS graduates (2008) are currently pursuing further studies. A high percentage of those are doing this while working. A concern about opportunity cost, commitment to a chosen area of study and a desire to further qualifications in it is indicative.¹⁸ It is evident that MKI-DS has produced young workers who are now actively questioning the quality of their jobs in a constructive manner. The retention rate which has traditionally been very low in first-time employees in Egypt increased. 52.8% (2009-tracer) are currently employed, either as full time employees or as both employees and studying further. 32% of those working were employed where they had been trained. This shows an emerging relationship between graduates and employers. (retention: 1997/8 - 9%; 2007/8 - 32%). The notion of increased vocational identity was borne out by the finding that 37% of graduates in the sample saw themselves working in a company in their field of specialisation after another ten years, 25% said they would own their own enterprise. This is an emerging trend among young people in Egypt. 22.6% said they would have finished their studies and become engineers. Two thirds of the sample said it would prefer to work in Egypt rather than abroad, suggesting that graduates' perception of the local labour market is improving (compared with other studies). This "is a positive trend towards the retention of young graduates and an investment made in a potentially skilled labour force".¹⁹ 74.5% of those who are working currently are prepared to travel within Egypt to find a better job. "This points to the relationship between experience with employment and job mobility. A willingness to consider moving for better opportunities seems to have been engendered by the experience of working and gaining an income."²⁰ Those currently employed believe that they have an opportunity to choose between jobs (53.2%) but those not employed were far more likely to feel that they had to take what they could get. In general, these findings suggest that graduates are beginning to ask questions about job quality for various criteria and this is likely to have a long-term affect on the quality of jobs offered. When asked to rank criteria for choosing a job, the 6 most selected criteria in descending order were: salary, field of specialisation, treatment in the workplace, insurance, fixed working hours, proximity between home and work²¹. The prominence of treatment at work suggests a more negotiated approach to the work relationship than is traditional in the Pharaonic model. To have friends or relatives in the workplace, previously highly-rated, is now one of the lowest criteria for job selection. All of this adds to a picture of an enhanced understanding of the labour market. There are indications that young Egyptians nowadays use more media in their job search: newspapers and the internet in urban areas; television in rural areas.

Weaknesses that remain

Despite the evidence that MKI-DS has a positive effect on graduates in terms of attitudes, qualifications related to work, finding and keeping work, studying further, seeing themselves as having multiple options, and improving their ability to negotiate

¹⁸ CID Consulting 03/2009, p 3

¹⁹ CID Consulting 03/2009, p.44

²⁰ CID Consulting 03/2009, p.50

²¹ For women, proximity of work and home was of more importance than treatment in the workplace.

for jobs with higher quality, it cannot be seen as a panacea for all ills. The tracer-studies show that the positive effects are more significantly felt by urban men than by either rural men or women in general. Urban women do, however, benefit more than rural women. They have not replaced the concept of the centrality of marriage and motherhood with other possible career-centered concepts. Women all over in Egypt have fewer expectations and achieve less than men²² - in the context of MKI-DS, too.

Conclusions and recommendations for future research

The Egypt National Action Plan for Youth Employment (2010 – 2015) calls for a reduction in youth unemployment to 15% by 2015. In order to achieve this, the TVET system i.a. must be more demand-driven; the transition from school to work is to be strengthened. It is recognised that MKI-DS has raised the level of relevance of the TVET-system. Some conclusions and suggestions for innovations and research:

- To introduce specialisations which may be more culturally suited for women;
- To involve the media constructively in shifting perceptions about the role of women, particularly in rural areas;
- To address the significant difference between urban and rural impacts by involving the business sector;
- To create the possibility of real negotiation around job quality emerging from MKI-DS impacts related to work culture and vocational identification.

References

- Adams, A V (2007): Helping Youth to Make the Transition from School to Work, Development Outreach, World Banks Institute, 2007.
- Amer, M (2007): Transition from Education to Work, Egypt Country Report. ETF Working Document.
- Amry, S (08/2008): Culture and the Perception of Work and Work Ethics in Urban Egypt/CAIRO.
- Amry, S; Augat, J (11/2008): Culture, Perception of Work and Work Ethics in Upper Egypt/Qena.
- Assaad, R (06/2008): The Dynamics of Decent Work in Egypt, Population Council.
- Bas, D (1989): On-the-Job-Training in Africa, International Labour review Vol 128, No 4.
- CID Consulting (07/2007): Mubarak Kohl Tracer Study of Graduates.
- CID Consulting (03/2009): Graduate Tracer Study and Attitudes of Youth: Towards the Labour Market in Context of the Wider Landscape of TVET in Egypt: Track I. Graduate Tracer Study.
- CID Consulting (04/2009): Graduate Tracer Study and Attitudes of Youth: Towards the Labour Market in Context of the Wider Landscape of TVET in Egypt: Track II. Overview of TVET in Egypt.
- EHDR 2009 (05/2009): Egyptian Human Development Report 2009, Draft Chapter on TVET & Youth.
- El Mahdi, A, Rushdy, R (2007): Informal Labor and Role of TVET for Youth in Egypt.
- Grunwald, E; Becker, B (2009): Mubarak-Kohl Initiative for Dual System (MKI-DS) – the case of Egypt: Success in reforming the TVET-system and shaping the society (full-length).
- Grunwald, E; Lotz, G; Nitschke, K; Sakr, N (2009): Vocational education and training in the context of labour mobility – country report „Egypt“.
- Grunwald, E (2008): PPP Models in TVET and their Impact on the Role of Government.
- GTZ/MKI-vetEP (12/2008): Job Quality as an issue in the Egyptian youth labour market.
- Langsten, R; Hassan, T (2009): Education Transitions in Egypt: The Effects of Gender and Wealth.
- Ministry of Manpower and Migration (05/2009): Final Draft Egypt Youth Employment National Action Plan 2010-2015.

²² Langsten R, Hassan T, 01/2009

Transition to Employment of Apprentices after Graduation - The Obstacles in Syria

Anton Al-Jouni¹ and Yomna Dallal-Bashi²

¹*HRM/D freelance consultant; Syria-Aleppo P.O.Box 5876*

²*Aleppo apprenticeship scheme database manager, Aleppo Chamber of Industry Syria-Aleppo P.O.Box 1859*

Summary: An apprenticeship is a “long-established form of vocational education and training [...] in which the apprentice is legally an employee, rather than a student, whom receives a wage or allowance from the employer” (ETE-Glossary).

The training and employment contract is not the case in apprenticeship scheme in Syria, but it had to lead the apprentices to be employed in the companies which trained them. The situation in Syria after 9 years is that the rate of employed apprentices from total graduates is very low, which indicates that there is a problem in apprentices employment process. This phenomenon is due to many objective factors from different nature, which can be classified as: economic, social, political and legislative factors.

Keywords: employment process, apprentices, rate of employment, partners.

Introduction

This paper tries to analyze the obstacles of apprentices in the transition to employment. A set of indicators will be discussed which help to specify the obstacles of employment process. Moreover, possible solutions are discussed to increase the rate of employed apprentices especially in the same companies which had trained them.

Employment process in Syria:

The official employment process in Syria is governed by MoSA&L through employment offices in all Syrian governorates, while the unofficial employment process is run through 3 channels:

- a. Private employment offices
- b. Job fairs
- c. Random employment

Here in after we will try to describe and assess every employment agent.

Governmental employment offices:

- a. Process: The job seeker contacts the office and provides an application, the application will be sorted to the suitable category. Categories are defined according to education degree and qualification.
- b. Advantages: Confidential, free service, public sector employment, career guidance service, social aspects, huge database.
- c. Disadvantages: Poor relations with private sector, central decisions, bureaucracy.

Employment process through private employment office.

- a. Process: The job seeker contacts the office and provides an application, the application will be sorted to the suitable category, categories are defined according to education degree and qualification.
- b. Advantages: Flexibility, try to have a good responsiveness to private sector.
- c. Disadvantages: Not well organised, non-legislative, charged service, hasn't career guidance service, hasn't social aspect.

Employment through job fairs.

SYEA organised annually job fairs in a specified governorates (Damascus ,Aleppo).

- a. Process: Participated companies prepare the required vacancies, job seeker prepare their CV/s, primarily recruitment interviews are run directly during the fair, then accordingly the applicant will be appointed if his competences meet the required vacancy.
- b. Advantages: Direct relation between employer and job seeker, organised process, short time.
- c. Disadvantages: Limited to 2 governorates only, in some cases high cost if company didn't find the suitable applicants.

Analysis of apprentices employment process.

An overview on employment process in Syrian apprenticeship system:

The apprenticeship employment start up from the point where the apprentices register in apprenticeship school or apprenticeship institute, this process will follow the following phases:

1. Training contract between employer and student: It is characterized by:
 - It is a training not a training and employment contract.
 - It is moral obligated to both sides
2. Official training according to apprenticeship regulations: This phase is characterized by that there aren't legal obligations to both sides, All issues are discussed and solved through apprenticeship school board. During this phase the apprentices take allowance from the company as a motivation, also all acquired skills registered under supervision in the Log Book of the apprentice.
3. Summer training: It is characterized by:
 - Summer vacation work/training is an option, not obligatory.
 - There isn't any official involvement of apprenticeship authorities.
 - Apprentice is a temporary employee according to Labour law.
 - Helps in building a trust between apprentice and company.
4. Transfer from apprentice to employee

MoE awards a "VET secondary school-Apprenticeship system" certificate, to secondary school graduates. The graduate is recognized as a skilled worker, while MoE awards an "Intermediate TVET institute- apprenticeship system" certificate, to intermediate institute graduates, the graduate is recognized as a technician.

The log-book hasn't really any added value in employment process. If the training in company built a trust between employer and apprentice, the graduate who didn't obliged to military service, will be willing directly to apply job in the company which trained him.

Tracing of apprentices' employment process after graduation:

- According to graduates tracing process The graduates almost choose one of the following pathways: i) high education and middle institutes , ii) military service (male), iii) apprenticeship company/another company in the same trade, iv) unrelated job or general secondary school – Literature branch.

1. Damascus:

The OFU survey was conducted during the period from Oct. 1st, 2005 to Nov. 10th, 2005. The main objective of this study is to evaluate the transition of Apprenticeship System graduates from study to work. Employment status of graduates are shown in Table 1:

Status	No	%
Employed	26	24
Seeking Government Job	12	11
Army service	20	19
Inactive	10	9
Higher studies	23	22
Unemployed for other reasons	16	15
Total	107	100

(Evaluation of apprenticeship System in Damascus, 2005)

Table 1: Tracing results of graduates pathways in Damascus (3 batches 2000-2005)

The table shows the low percentage of employed graduates which is 24%.

2. Aleppo:

A new tracing process had been accomplished in Aleppo by apprenticeship unit in Aleppo Chamber of Industry for the purpose of this paper, there are 3 batches during years (2003-2008), The results stated in the Table No.2

	University	Inter- Institutes	Army service	App. company	Other company	Different pathways
	1	2	3	4	5	6
MH 82 graduates	10%	54%	7%	4%	7%	22%
RMG 120 graduates	7%	16%	11%	15%	9%	13%

Table 2: Tracing results of graduates pathways in Aleppo (3 batches 2003-2008)¹

¹ Some students are employed and are studying in university or intermediate institute at the same time so they counted twice

According to figures the percentage of total employed in apprenticeship companies and other companies is 24% in RMG, and 11% in MH, and in average 17,5%, which is lower than Damascus rate of employment which is 24%.

3. Homs:

The results in Homs is stated in table 3.

	University	Intermediate Institutes	Army service	App. company	Other company	Different pathways
	1	2	3	4	5	6
MH 21 graduates		33%				9%
RMG 28 graduates			11%	11%		25%

Table 3: Tracing results of graduates pathways in Homs (1st batch 2005-2008)

In general from all previous surveys the figures show low rate of employment for apprenticeship graduates, it is 24% in Damascus, 17.5% in Aleppo, 5.5% in Homs, and in average it is about 15.6%,

Restrictions and obstacles for suitable employment:

There are many factors affecting the employment process that will be revised in the following:

Economic factors

Industry in Syria, especially the clothing sector has been affected in the recent (2006-2009) intensively by new economic trends by signing a free trade agreements, as well as importing clothing products from China, which led to a decrease in demand for clothing industry workers. While the engineering industries sector still grow, so there is no decline of HR demand.

Social factors

It is tightly linked to the apprenticeship social partners i.e. (the employer, graduate himself, graduate's parents). A few of graduates change their career totally as they transfer to general education. Most of them try to postpone their work decision by enrolling into industrial institutes (2 years) or by attending the mandatory military service. This situation affects adversely the private sector willing to participate in apprenticeship. Most parents prefer that their sons follow-up higher education, because this improves the possibility of public sector employment and provide good image in society.

Political factors

The political situation has led to the existence of compulsory military service for males at the termination of their education. This commonly makes most young people seek to extend the periods of education to the greatest possible period.

Legislative factors

These factors are related to: training contract, labour law, social insurance law, and their implementation, also the regulations of employment offices, which influences passively the employment process.

Results and proposals

The main findings are:

1. The effectiveness of apprenticeship system in Syria from point of view of rate of graduates' employment in apprenticeship companies or others is very low.
2. Many factors influences the employment process and the employment rate.
3. The factors which apprenticeship can deal with is restricted to, that which apprenticeship partners can influence on.

Here in after the possible interventions and authors proposals:

- 1) Social area: The intervention has to concentrate on the mind setting of both employers and apprentices, to build a mutual trust. The following activities can help:
 - Use of careers advisor process intensively during selection of apprentices.
 - Awareness events to apprentices and their parents about private sector.
 - Awareness events to employers about HRM/D,
- 2) Military service:
 - Introduction of a two-year 'supervised employment' of the male apprenticeship graduates in the company where they had been trained,
 - Cooperate with ministry of defence to enable the graduate to serve in the army according to his profession after following the basic military course.
- 3) Learning pathways: It is strongly recommended to limit the percentage of higher education after secondary school by 25-30% from total graduates, with possibility of apprentice upgrade through flexible entry and exit of MVET system.
- 4) Apprenticeship Training Contract: Introducing a *training/employment contract* that should be used in addition to the existing training contract in a flexible way, so employer and employee can choose the better to them. Relation with employment offices and channels, NAC & RAC has to build a relationship with GEO's and PEO's, also with NGO's like SYEA to recognise apprenticeship graduates, and to help apprentices seeking jobs. All of these proposals will be effective if implemented in parallel.

List of acronyms

GEO	Governmental employment office	OFU	Observatory Function Unit
MH	Mechanical Handling	PEO	Private employment office
MoE	Ministry of Education	RAC	Regional Apprenticeship Committee
MoSA&L	Ministry of social affairs and Labour	RMG	Readymade Garment
NAC	National Apprenticeship Committee	SYEA	Syrian Entrepreneurs Association

References

- Apprenticeship activity experts team (2008): Strategy for increasing the number of companies taking part in apprenticeship. Syria: MVET PROGRAM. 3-6.
- Apprenticeship and Enterprise-based Learning: A Glossary (2007): MEDA ETE-Project-subcomponent 2.2. Torino: ETF. 1.
- Khawla K. (2005): Evaluation of Apprenticeship System in Damascus. Syria: State Planning Commission. 6-7.
- Apprenticeship team (2002): Handbook of Procedures of Pilot Syrian Apprenticeship Scheme. Syria: MoE. 33-36

Intermediary Bodies in Apprenticeship: An Answer to Challenges in HRD in the Building and Construction Sector in Egypt

Aboubakr Abdeen Badawi

Consultant, 7 Dr. Mohamed Shahin, Post Code 12311, Agouza, Giza, Egypt

Summary: Building and Construction sector in Egypt is a main contributor to employment, in particular low educational attainment individuals. Traditional apprenticeship used to be the main source for new entrants, but it is now complemented with modern apprenticeship schemes. The Egyptian Federation of Building and Construction Contractors (EFBCC) is acting as an intermediary body for one of these schemes. Their scheme is addressing main challenges of HRD in the sector through promoting enrolment, enhancing cooperation between training enterprises, offering off-the-job training, providing some career/vocational guidance to apprentices and certifying them. A unique feature of the scheme is the flexible monitoring system mobilizing apprentices between enterprises to ensure wider acquisition of occupational skills. In depth interviews with a sample of apprentices, mentors/trainers, employers/contractors and the scheme management staff revealed a number of interesting findings, leading to a number of recommendations for the EFBCC and further research.

Keywords: Cross company network of apprentices in Egypt, Egyptian building and construction industry, coordination of learning venues, apprenticeship image old and new

Introduction

Building and construction sector in Egypt is one of the major employing sectors. It is also a refuge for a good percentage of illiterate and low educational attainment workers. Traditionally, skill acquisition in this sector used to come mainly from informal (traditional) apprenticeship. It was only recently, during the vast reconstruction that followed the 1973 war, when specialized vocational training centres were established to train for building and construction occupations. Egyptian workers in these occupations are not only covering the needs of Egypt, but also represent a good percentage of workers in this sector in several Arab countries. Thus they mitigate the growing youth unemployment phenomenon and contribute with their revenue to the national economy. Informal employment, even within the formal building and construction enterprises, is very high and the majority of work is executed through subcontracting to small contractors employing workers without official contracts. The image of traditional apprenticeship in this sector used to represent an obstacle to recruiting apprentices with better potential, but modern apprenticeship schemes are slowly changing that image.

In addition to its continued importance for economic development in Egypt, the building and construction sector proved to be a promising sector for combating unemployment in the current international economic crisis. In many countries this sector is facing additional difficulties originating from the crisis. Sharp rise in basic building material prices, cement and steel, and higher than usual inflation rates in

Egypt raised fears of reflecting negatively on employment in this sector. On the contrary, it achieved the highest rate of growth among all economic sectors in Egypt during the first quarter of 2009 with a record increase of 17% (Rasheed M. Rasheed, 2009). The Egyptian government is ensuring keenness to support this sector by all available means in the coming future to enhance its role in developing the economy (Rasheed M. Rasheed, 2009). It is envisaged to see moderate demand for trained workforce in this sector and demand for apprentices whose employability is enhanced by on-the-job training (documented for Mubarak Khol initiative's graduates in GTZ, 2007).

In addition to the traditional informal apprenticeship in Egypt, running for centuries with verbal agreement and not leading to a certificate, four schemes of modern apprenticeship are identified (Badawi, 2007). Two of these schemes are run by the Ministry of Education (MOE) as part of the three-year Secondary Technical Education, one operating since 1956 by the Productivity and Vocational Training Department (PVTD) in the Ministry of Trade and Industry (MoTI) and a piloted scheme by the Ministry of Manpower and Migration (MoMM) in cooperation with the International Labour Organization (ILO). Apprenticeship in the building and construction sector in Egypt faces several challenges including: Seasonality of work, Shortage of supply of apprentices and the Negative image of apprenticeship due to spreading informal traditional apprenticeship in this particular sector.

By its own nature, apprenticeship schemes could not be initiated or survive without true and effective Partnership between the apprentice, training enterprise/company, educational institute and possibly the civil society. Forms and modalities of such partnership has been an issue for many innovations and projects (e.g. the EU Workplace Learning partnership project). The leading role in this partnership could be that of the educational institute as in the dual system in Germany, but it could also be that of a third concerned party (an intermediary body) or research institutes and universities. In the Mediterranean region, cooperation among the key actors tend to be relatively weak (Sweet, 2008).

Recently, economic/employment circumstances and change in technology gave rise to modern apprenticeship with some innovative features, stemming from a genuine innovative spirit. Innovative approaches always addressed, inter alia, the crucial issues of partnership and leadership. This paper summarizes the experience of an intermediary body, Egyptian Federation of Building and Construction Contractors (EFBCC), with a clear leading role.

Membership of the EFBCC is mandatory as one of the conditions to issuing licenses to contractors. Although many contractors, in particular in rural and remote areas, are neither registered in the Federation nor licensed; the share of their work is not high because most of public and private construction projects are legally limited to licensed enterprises.

Methods and research design

Data has been collected for this study through in-depth interviews, using an interview form, with four categories of individuals namely; Scheme management staff, Contractors involved in training, Apprentices and their trainers/ mentors. An analytical approach is used as the main methodology with qualitative rather than quantitative focus.

A random sample of five apprentices, one mentor/trainer and one employer/ contractor was drawn from each of the three main training centres in great Cairo (serving five Governorates namely, Cairo – Giza – Helwan – 6 October and

Qalubeya). Members of the scheme top management in the federation were also interviewed.

An Interview form was developed and presented to a team of three experts in field data collection, modified according to their comments and used by the researcher during all interviews. The form has been designed in a way that allow customizing the question, by the researcher, to the interviewed person, with a possibility to group the answers/views in 8 categories namely, Work Arrangements, Challenges, Strengths, Opportunities, Apprentices Mobility, Role of the Federation, Promoting Enrolment, Orientation of Applicants and Any Other Specific Remarks.

Results

EFBCC, as the intermediary body of the scheme, succeeded in linking apprentices to more than one contractor with a view to mitigate the effect of seasonality on training. Effective coordination among contractors in mobilizing apprentices through a flexible monitoring system ensured that every apprentice acquires all necessary skills. The Federation's role in raising the awareness about the scheme among the most promising categories of target groups promoted apprenticeship enrolment. EFBCC is providing apprentices with some career/vocational guidance, necessary off-the-job training and issuing them certificates upon successful completion of the programme. These aspects contribute to quality of training, in particularly for enterprises that do not have enough experience in apprenticeship training

Training companies' involvement, beyond availing the training opportunities, need to be enhanced to gain ownership of the scheme. Stressing the role of mentors along with their training and certification would be another achievement for the scheme. Contractors interviewed confirmed that high quality outcomes significantly add value to the enterprise. They also confirmed the need for ensuring quality side-by-side with the anticipated future expansion of the current scheme.

Interviews showed that companies employing apprentices and trainees could be better involved in developing training curricula and management of the scheme. Also, apprentices could be better informed on the prospects of their career.

Limitations of the current study, mainly its full reliance on replies of interviewed individuals and the small sample interviewed, open doors for further research to optimize utilization of the Federation's scheme and replicating it, as appropriate. Meanwhile, the value of this paper is that it open doors for further research in this field in Egypt and that interviews covered the four main partners in the scheme (apprentices, mentors/ trainers, contractors and scheme management).

Recommendations

For further research

Further research is recommended in the role of intermediary bodies in networking training companies with training institutions, co-sharing the cost among companies, monitoring off-the-job training, certification and improving the image of modern apprenticeship schemes. With more than 90% of all enterprises in Egypt classified as small, specific research to develop an appropriate model for quality apprenticeship in small enterprises is highly recommended. Curriculum and learning material development would assist in realizing quality apprenticeship training in such small enterprises.

For the EFBCC

- Enhancing documentation on the initiative and encouraging research papers and studies on its assessment and improvement.

- Linking the initiative to the international literature and practice on innovative approaches to apprenticeship management and intermediary bodies to enhance its effectiveness.
- Link anticipated expansion of the scheme to specific measures ensuring quality of training, both on an off-the-job.

References

- Badawi, Aboubakr Abdeen (2007): Apprenticeship and Enterprise-based Learning: Egypt's Report, European Training Foundation (ETF), Turin, Italy.
- Badawi, Aboubakr A. (2006): Career Guidance Policies and Practices in Egypt: Towards Strengthening and Articulating Career Information, Guidance and Counselling Services, European Training Foundation (ETF), Turin, Italy.
- Egyptian Federation of Building and Construction Contractors (2008): Apprenticeship File, unpublished file, EFBCC, Cairo, Egypt.
- European workplace partnership project, Retrieved on 22 June 2009, URL <http://www.Workplace-learning-partners.org>.
- GTZ (2007): The Mubarak-Kohl Initiative; a system Development Approach Towards the TVET Sector in Egypt, Cairo, GTZ.
- M'Hamed DIF (2006): Impact of Regionalisation, Internationalisation and Networking on Workplace Learning Partnerships, Paper presented at the European Conference on Educational Research, University of Geneva, 13-16 September 2006 (EERA/VETNET).
- Rasheed M. Rasheed (Cabinet Minister for Trade and Industry, Egypt) (2009): Speech during the Opening of the 16th Annual International Exhibition and Conference for Building and Construction, In Al-Ahram daily Newspaper, No. 44755, year133, 19 June 2009, p.7.
- Rauner, F., Maclean, R., (2007) (Ed.): International Handbook of TVET Research, Doordrecht: Springer.
- Sweet, R. (2008): Work-based Learning Programmes for Young People in the Mediterranean Region: A Comparative Analysis, European Training Foundation (ETF), Turin, Italy.

VET for Youth in Canada and the United States

Bonnie Watt-Malcolm¹, Antje Barabasch² and Alison Taylor³

¹*Department of Secondary Education, University of Alberta
347 Education South, Edmonton, Alberta, Canada T6G 2G5*

²*Department of Vocational Education & HRD, Universität Magdeburg
Zschokkestraße 32, D-39104 Magdeburg, Germany*

³*Department of Educational Policy Studies, University of Alberta
7-104 Education North, Edmonton, Alberta, Canada T6G 2G5*

Summary: We investigate high school apprenticeships and related social partnerships in Canada and the United States (US). Throughout this paper, we examine VET policies and education-industry partnerships and explore how these elements shape the programs under study. The Canadian study explored partnerships that are involved in high school apprenticeship initiatives designed to help youth transition from school to work in three provinces: Alberta, Ontario, and British Columbia. For the United States, a comprehensive literature review was conducted according to the above criteria. It includes prominent qualitative studies that are concerned high school apprenticeships and transitions to work.

Keywords: high school apprenticeships, social partnerships, school-to-work transitions

Introduction

North American apprenticeships are viewed by many as less than optimum educational pathways and the absence of structural support reflects this observation. Unlike Germany and Switzerland, the significance attached to apprenticeships has declined in past decades thus little attention has been given to apprenticeship education by policymakers. The reasons for their reduced popularity in North America are numerous: a) apprenticeable occupations do not have social and cultural capital, b) union and employer support is weak, and c) market-based economies do not have the means to maintain the resources required to sustain long-term quality training and subsequent employment. Despite these factors, to encourage youth and young adults to consider post-secondary studies, education-industry partnerships are being developed with the intent to promote high school apprenticeships, with or without policy support. Such partnerships require sustained linkages with industry, education institutions, and unions; however, the social cooperation required to sustain these partnerships challenges their permanence (Watt-Malcolm & Taylor 2007).

Methods and research design

We investigated Canadian high school apprenticeship initiatives designed to help youth transition from school to work in three provinces: Alberta, Ontario, and British Columbia. Sixty interviews and focus groups were conducted from 2007 to 2008 with representation from social partners including employers, government, organized labour, training delivery agents, secondary schools, and advisory councils. For the US, a comprehensive literature review was conducted according to the above criteria. It includes prominent qualitative studies that are concerned with high school

apprenticeships and work. The paper draws on the study interviews, scholarly literature, and policy documents.

Findings and discussion

Apprenticeship training incorporates a systematic approach of on-the-job training and formal in-class training. Even though this definition broadly defines apprenticeships according to US state and Canadian provincial policies, there are notable differences between these two systems, see Table 1 below.

Comparison of US and Canada apprenticeship systems		
Criteria	US	Canada
Apprentice registration	Formal registration is not required; however, if apprentices register with the US Department of Labor they are eligible for funding under the <i>National Youth Apprenticeship Act</i> .	Formal registration is required with provincial or territorial governments' apprenticeship boards.
Apprenticeship contract	A two party contract – apprentice and sponsor. A sponsor can be an employer, an employer working with a union, or an employer group working with a union.	A three party contract – apprentice, government, and sponsor. A sponsor can be an employer or a union.
Apprenticeship training	On-the job and in-class training. For the formal in-class training, the apprentice has the option to attend classes after the workday a couple of evenings per week from fall through spring in the sponsor's training facilities or in community or technical colleges.	On-the job and in-class training. For the formal in-class training, the apprentice has the option to attend classes typically in six to ten week blocks at community or technical colleges. In some provinces, training is also offered at union training facilities (e.g., Ontario).
Apprentice wages	Apprentices receive wages that start at approximately 50 percent of the journey level wage and rise gradually, reaching 90 percent in the final training period.	Apprentices receive wages that start at approximately 50 percent of the journey level wage and rise gradually, reaching 90 percent in the final training period.
Apprenticeship partners	Apprentices, journeyed employees, employers, unions, state and federal governments, and advisory committees.	Apprentices, journeyed employees, employers, unions, provincial/territorial and federal governments, advisory committees, and apprenticeship boards.

Table 3: Comparison of US and Canada apprenticeship systems

In addition to criteria listed in Table 1, people who have acquired approximately 1.5 times the number of hours of the apprenticeship program can challenge the Certificate of Qualification exams. If these individuals pass their qualification exams, they do not have to attend formal technical training classes. Canadian apprentices who do not fall under this category typically pay their own tuition; however, there are a few exceptions. North American employers associated with trade unions contribute a few cents into a trust fund for every hour of labour – a concept that originated in the mid 1950's in local mechanical and electrical trade collective bargaining contracts, which are now commonly incorporated in all building trade agreements (Glover & Bilginsoy 2005). Training costs incurred by union apprentices are paid out of these trust funds. Non-union employers in general do not contribute to a training fund. As a result, tensions exist between union and non-union employers about who pays for

apprenticeship training and the benefits that non-union employers gain if union employees decide to work in a non-union environment.

High school apprenticeships

Youth apprenticeships are available to high school students throughout the states and in most provinces and are often managed by way of social partnerships between employers, secondary schools, colleges and technical institutions, and governments. These school-to-work initiatives are a new variant of the traditional apprenticeship. The difference lies in the requirement for high school students to continue their compulsory academic subjects. Youth can start their apprenticeships in the tenth grade and complete their programs after high school graduation. One difference between Canada and the US is that in the US various school-to-work programs exist parallel to each other.

In the US, for the youth apprenticeships, there is a minimum of 900 hours of paid work-based learning and four semesters of related classroom instruction. This in-class instruction is in accordance with industry developed skills standards and a state-issued competency checklist. Unlike the US, Canada's youth apprenticeships involve approximately 1,000 on-the-job training hours without the requirement of related technical training. However, there are exceptions; for example, some agreements within Ontario's Youth Apprenticeship Program (OYAP) and British Columbia's Accelerated Credit Enrolment in Industry Training (ACE-IT) program allow students to earn their formal first-year technical training while in high school (e.g., carpentry, cooking, welding).

The idea behind youth apprenticeships is that students, who are thought by many to be less academically inclined, might increase their interest in academic subjects if they understand the practical application of the theoretical knowledge through their early work experiences. In our Canadian study, participants suggested that young adults who participate in these programs show higher motivational levels towards school and appear to be more goal-oriented than their non-participating schoolmates. Youth involved in high school apprenticeships seem to counteract the tendency for many young adults to flounder in their career pathways until their early thirties.

Education-industry partnerships

In our study, partnerships were formed for a number of reasons: a) employers had a need for qualified employees, b) employers had a desire to support the community and keep youth from leaving the area to find work, c) school districts had a goal to provide students with options that included learning practical skills in addition to their academic studies, d) schools believed that offering high school apprenticeships might help students stay in school and complete their high school studies, and e) governments were motivated to help schools keep their students in high school and to help employers train students with the aim to fulfil future workforce requirements.

Study participants unanimously stated that an important condition for program success is the intensity of co-operation with industry, schools, and governments. However, conflicting interests among the social partners create situations whereby youth apprenticeships are difficult to sustain. Employers are motivated by profit in contrast to secondary institutions' goal to provide sound educational experiences for their students. This is not to suggest that employers do not present youth with valuable educational experiences; however, if profits are reduced because of young apprentices, it is more difficult to convince employers to hire high school apprentices. Additionally, resourced-based employers (e.g., oil and gas) during times of economic growth have the means to hire high school apprentices; but, when there is a

downturn in the economy, these employers do not have enough work to hire or continue youth apprenticeships. Another observation noted by the study participants is that, depending on the context, employers may avoid employing youth. An example is a program in northern Alberta where employers often choose to take on apprentices at a later age when people are mature and are more likely to stay, which helps employers ensure that there is a return on training investments

Similar to studies conducted in the US (e.g., Bassi & Ludwig 2000, National Employer Leadership Council 1999), Canadian employers we spoke with cited benefits for their companies such as: a) reduced recruitment and training costs, b) value is added to their companies because of student work and the opportunity to partner with local schools, and c) higher productivity and morale was noticeable because experienced workers wanted to share their knowledge and skills. Many of the participants in a northern British Columbia high school apprenticeship program commented that these programs are a strategic recruitment and retention strategy. These employers also stated that if the students continued their employment with them after high school there was an increased return on investment dollars when compared to the costs incurred for the initial on-the-job training of young apprentices. The US National Employer Survey indicate that employer involvement with local high schools is associated with better experiences in hiring local graduates as well as having lower turnover of their youth employees (Shapiro & Iannozzi 1998).

Conclusion

Overall, we argue that apprenticeships have gained some of the credibility they lost during the past half century, especially apprenticeship programs that encourage students to consider taking on apprenticeships while completing their high school academic subjects. Employers are crucial partners in these social partnerships – without employers youth apprenticeships cannot exist thus policies that support employer involvement are critical. However, in North America's market-driven economies, policies that require long-term employer involvement in high school apprenticeships are virtually impossible to put into practice.

References

- Bassi, L., & Ludwig, J. (2000): School-to-work programs in the United States: A multi-firm case study of training, benefits, and costs. *Industrial and Labor Relations Review*, 53, 219-239.
- Committee on Education and Labor (1984): Oversight Hearings on the National Apprenticeship Training Act, Hearings held in Washington, D.C., November 15, 17, 1983. Washington, DC: US Government Printing Office.
- Glover, R. W. & Bilginsoy, C. (2005): Registered apprenticeship training in the US construction industry. *Education & Training*, 47(4/5), 337-349.
- National Employer Leadership Council (1999): Intuitions confirmed: The bottom-line return on school-to-work investment for students and employers. Washington, DC: Author.
- Shapiro, D., & Iannozzi, M. (1998, September): Benefits to bridging work and school. *Annals of the American Academy of Political and Social Science* 559, 157-66.
- Watt-Malcolm, B. and Taylor, A. (2007): 'Get them young and train them right': Negotiations in a VET partnership. *Canadian Journal for the Study of Adult Education*, 20(2): 57-70.

Quality Assurance in the Regional Integrated Vocational Training Centers in Hungary

Magdolna Benke

*National Institute for Vocational and Adult Education
Baross u. 52, 1085 Budapest, Hungary*

Summary: It seems that there are many uncertainties in the system of the RIVTCs, how to cooperate with the social partners, with the chambers, how to develop the contact to the labor market. VET experts and the affected institutions more or less agree on the necessity of increasing the role of economy in VET, however, they have differences of opinion how that should be done. It is not clear whether transferring more and more tasks from the local governmental/school sphere to that of enterprises and Regional Development and Training Committees (RDTCs) will result in a better co-operation between education and economy, which is a pre-condition to the quality of training, and in better representing and meeting the long term needs of the economy. The government had a concept to strengthen regional planning and management in VET, but as the reform of the state administration was taken off the agenda, the government is planning to transform the system in an indirect way. The Regional Development and Training Committees (RDTCs) dominated by economic actors can modify the VET profile of regions to a considerable extent. It is not clear how efficient is the involvement of the social partners in this process.

Keywords: Innovation, quality, regional, partnership

Introduction

This proposal is based on research conducted into the problems and tasks of quality assurance in a number of the Regional Integrated Vocational Training Centres (RIVTCs) of the country. The research project started at the end of 2008 and will finish in the summer of 2009. The research is being carried out by the organisation of the National Institute for Vocational and Adult Education in connection to my work in the ENQA-VET (European Network for Quality Assurance in VET) project.

In my research I focus on one of the most important factor of QA in the RIVTCs, namely on the quality of the cooperation with the social partners and the contact to the labour market. According to the 'mission' of RIVTCs, they operate under a strong co-operation with the different stakeholders, to be able to meet the needs of the labour market in a higher level. There are some special fields for QA which can be examined as the elements of the 'key process' of effective relationship with labour market stakeholders, namely, how to establish such relationships, how to sustain them, what are the elements of the relationship which make it most effective, (information, interaction, reciprocity, partnership, etc.), how to embed or routinise joint working relationships, how to distil principles and practice to provide continuity and to guide others. (*S. Humpl, R. Ferrandez, B. Whittington, 2007*).

The main purpose of my research is to identify the actual level of RIVTCs on which the searched centres can be located if we assess their progress in developing such relationships in the labour market. The research is aiming to point out the main

factors which help the centres to go ahead on the process which begins with 'interaction' with the social partners and other stakeholders and can achieve the status of 'integration' of aims and activities. The research demonstrates how and where 'contact building' can be followed by 'structure building' and finally, by 'culture building'. (S. Humpl, R. Ferrandez, B. Whittington, 2007). The report explains the concrete actions, formal and informal networks, contacts and partnership building which made significant contribution to this process.

Since the main reason of the establishment of the RIVTCs was to make VET more efficient (Benke, M. 2008), my research pays special attention on the quality of the co-operation with the stakeholders in the field of the development of the 'profile' of the centres, on where and in which vocations how many students can be enrolled. Since 2006 RIVTCs are obliged to operate Professional Consultative Boards (PCB) in which economic actors take the majority of the seats. Among those, the law prescribes that Regional Development and Training Committees (RDTCs) should decide about the goals of regional VET development, they should define the regional demands of VET and determine the vocational programme offers and the proportions of enrolment. My research tries to find out the role of the operation of these bodies in the process of QA in the searched centres.

Methods and research design

My research is based on the analysis of documents at governmental and regional level and other relevant research papers, interviews with policymakers and key players in the governmental sector, at regional level and a review of available literature. Within the course of this research I have been planning to gather new information and experiences from three RIVTCs, especially about the process of quality assurance in the field of contact to the labour market.

The experimental part of my research is based on three case studies (from different regions), focusing on the particular characteristics and development processes within the regions. The research concentrates on three RIVTC centres, from different regions of the country, which represent different stages of the development process.

I am aiming to further study the experimental basis of my previous research related to RIVTCs, which provides me with an opportunity to achieve a deeper understanding of the researched topics.

The presentation provides a summary of the experience learned from the searched cases and sets out recommendations for further development.

Results

In Hungary, in the last 10 years there has been an increasing amount of discussion about quality, effectiveness and efficiency of VET in the course of professional debates and the preparation of strategic documents and development directions. However, the means of reaching these goals are just being created, or will be created in the near future. Some of the already implemented measures of the strategic documents (introduction and further improvement of a unified quality assurance system in schools participating in the Vocational School Development Program; adaptation of the Common Quality Assurance Framework (CQAF); the revised National Qualification Register and examination requirements) have created certain frameworks for quality development within VET.

The VET administration is expecting quality improvement indirectly also from optimizing the institutional system of VET, which may lead to a more efficient utilization of resources. The institutional system of Hungarian VET is in a state of radical transformation and permanent organizational concentration. According to the recent modernization of the VET system in Hungary, a network of integrated regional vocational training centers is under development, financed by the human resources development operative program. During the first phase leading up to the end of 2006, 16 centers were set up (with the integration of 120 vocational education schools and 6 higher education institutions). This will be followed by the establishment of a further 44 centers by 2013. (M. Benke, 2007).

The quality assurance systems introduced in the 16 RIVTCs, established in 2005, were shaped in light of CQAF and they are compatible with it. The new tenders announced at the end of 2007, funded from the Social Renewal Operational Programme (SROP), enables the establishment of further 32 RIVTCs. However, the new call for tenders does not specify quality assurance as a requirement, therefore its use will be decided locally. It seems that there are many uncertainties in the system, how to cooperate with the social partners, with the chambers, and how to develop the contact to the labour market. VET experts and the affected institutions more or less agree on the necessity of increasing the role of economy in VET, however, they have differences of opinion how that should be done. It is not clear whether transferring more and more tasks from the local governmental/school sphere to that of enterprises and Regional Development and Training Committees (RDTCs) will result in a better co-operation between education and economy, which is a pre-condition to the quality of training, and in better representing and meeting the long term needs of the economy.

The government had a concept to strengthen regional planning and management in VET, but as the reform of the state administration was taken off the agenda, the government is planning to transform the system in an indirect way. The Regional Development and Training Committees (RDTCs) dominated by economic actors can modify the VET profile of regions to a considerable extent. It is not clear how efficient is the involvement of the social partners in this process. According to the plans, from autumn 2009 development funds necessary for the permanent operation of VET will be available to VET institutions only if they accept the recommendations of RDTCs on where and in which vocations how many students can be enrolled. Thus RDTCs, in a sense, belong to the management structure. There is a worry that the direct connection with the labour market will be replaced by the strict connection with the RDTCs. More information is needed on how the most dominant applied technology in the searched regions and the actual labour supply and demand can influence the success of actors in building the above described partnership.

References

Glossary on Quality and Training, November 2003, Cedefop

Benke, M. (2005): A regionális és az ágazati tervezés kapcsolata a hátrányos helyzetű térségekben, *Felnőttképzési Kutatási Füzetek*, 4; 120 oldal (The connection between regional and sector planning in the disadvantaged regions of Hungary, *'Adult Education Booklets'* Vol. 2005. No. 4. (120 p.) Budapest.

Benke, M. 2007 (1): The evaluation of the development of integrated regional VET centres in Hungary, in the framework of the symposium on 'Improving the Knowledge Base through work and learning partnerships between research & development, professional education and industrial business'; presented at the ECER conference in Ghent, 2007.

- Benke, M. 2007 (2): Szakképzési és felnőttképzési innovációk egyes regionális összefüggései, előadás az NSZFI nemzetközi kutatási konferenciáján, 2007 szeptember (Some regional connection of innovations in the field of vocational and adult education; paper presented to the international conference of NIVE, September 2007, Budapest).
- Benke, M. (2008): Towards Innovative Apprenticeship, The Evaluation of the Development of Integrated Regional Vocational Education and Training Centres in Hungary, paper presented at the INAP conference, Vienna (in preparation: Springer International, 2009).
- Benke, M. (2009): Report on the development of steps towards QA in VET in Hungary (prepared for the ENQA-VET 4th Thematic Group on Developing policy guidelines).
- Gustavsen, B.; Ennals, R.; Nyhan, B. (eds), (2007): 'Learning together for local innovation: promoting learning regions', Luxembourg: EUR-OP.
- Humpl, S.; Ferrandez, R.; Whittington, B. (2007): *Enhancing Quality in Practice Orientated Higher Education- External Stakeholders and the Relevance of the Curriculum*. Final Report on the DEQU-project. <http://www.dequ-info.net>
- Dr. Stefan Humpl, Reina Ferrandez-Berrueco, Brian Whittington: Quality Assurance in VET and HE. Possibilities for Mutual Learning (Paper for VETNET –Network at the ECER conference, 2007)
- A TISZK-ek munkájának értékelése, OMAI, Budapest, 2007 február (The evaluation of the activity of RIVTCs, OMAI, Bp, February 2007)
- The New Hungary Development Plan; National Strategic Reference Framework of Hungary 2007–2013, 7 May 2007.
- ENQA's 2007 Report
- VET Policy Report Hungary (2008): Progress in the policy priority areas for vocational education and training (Cedefop, ReferNet).
- Szakértői jelentés a Kaposvári TISZK átalaakításának lehetőségéről (2008): (Expert statement about the restructure of the Kaposvár RIVTC).
- Beszámolók, jegyzőkönyvek, (Reports and minutes on the development of RIVTCs).

Accelerated Artisan Training at the Manufacturing Coalface: Responding to the Skills Challenge in South Africa

Salim Akoojee and Helen Brown

Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA), Parktown, Johannesburg, South Africa

Summary: Skills development is critical to South Africa's developmental challenge. It has been argued that South Africa's key twin post-Apartheid challenges, poverty and unemployment (RSA 2008; ANC 2009) requires a degree of skills development not undertaken before. This paper explores the rationale for, and implementation of, an accelerated artisan skills development intervention in South Africa. The AATP is a project designed to accelerate the training of artisans in South Africa to respond to what has been considered a crisis of skills development in South Africa. Under auspices of the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA), the project has been designed to accelerate artisan training with a view to resolve immediate to mid-term shortages. It is argued that the implementation of this intervention provides an added platform for resolving the artisan skills deficit in South Africa. The rationale for, and the implementation of, this 'project in process' is critically assessed.

Keywords: South Africa TVET, artisan training, skills Development, accelerated intervention.

Introduction

Skills development is critical to South Africa's developmental challenge. It has been argued that South Africa's key twin post-Apartheid challenges, poverty and unemployment (RSA 2008) requires a degree of skills development not undertaken before. Successive national social and economic development initiatives since 1994 have sought to resolve this deficit in various ways including the Reconstruction and Development Programme (RDP), the Growth, Employment and Redistribution (GEAR) and the accelerated and Shared Growth Initiative for South Africa (AsgiSA) and its skills development component, the Joint Initiative on Priority Skills Acquisition (JIPSA). The latest Human Resource Development Strategy for South Africa (HRD-SA) (RSA 2008) seeks to consolidate previous initiatives whilst ensuring a 'coordinated' and integrated response to the provision of scarce skills in the country. Clearly much still needs to be done to realise the objectives of a national system designed to respond to the challenge.

This paper explores the rationale for introduction, and the implementation, of an accelerated artisan skills development intervention in South Africa. The Accelerated Artisan Training Programme (AATP) is a project designed to accelerate the training of artisans in South Africa and thus respond deliberately to South African artisan shortages in the medium to long term. It is argued that the implementation of this intervention provides an added platform for resolving the artisan skills deficit in South

Africa.¹ This paper will begin by exploring the nature of the skills development challenge in the national development agenda in South Africa. The nature of the artisan skills shortage is then explored, followed by an overview of the accelerated training intervention.

South African skills and national development

Skills development has been intricately linked with the national development challenge in South Africa. The twin challenges of poverty and inequality is exacerbated by, or a manifestation of, severe unemployment (estimated at between 24 and 35% as at March 2009). The issue of skills development has been identified as a significant constraint on responding to key developmental considerations. McGrath and Akoojee (2007) suggest that by 1994, the South African skills development system was ‘seriously dysfunctional’. Three major problems were identified. First, the system was characterised by the racialisation and gendered nature of the skills development system, with Black (especially females), either being denied access to skills or being denied opportunities for certification or recognition of their skills. Second, the State had ‘abandoned’ responsibility for intermediate skills development, with the business community not able to replace provisioning and the “possibility for tripartitism... almost non-existent in one of the most conflictual industrial relations systems in the world.” (p. 421). Third, South Africa’s Apartheid-driven industrial development path had led to an intense polarisation of skill between high skill and low skill elements; with a serious underdevelopment of the intermediate skill segment, which is seen as essential to successful industrialisation and competitiveness internationally (McGrath, 2004).

One of the results of this dysfunctionality was the negative implications on artisan skills supply. While the extent of the shortage has been questioned (Manyi 2007), there is agreement that there is a deficit of skills. While the calculation of numbers of skills shortages is never an exact science, the reference to a shortage of ‘artisans’² refers to a broader need for skills shortages in “intermediate level knowledge and skills [...] held by workers in the craft and artisanal trades, where knowledge is a combination of theory and practice and the emphasis is on the practical rather than the conceptual” (CDE 2007). Certain figures have become widely accepted in discussions of artisan skill shortages. In 1975, for instance, while there were 33 000 apprentices registered in South Africa: by the year 2000 there were only 3 000 (see Figure 1 in Appendix A). The figure shows that despite concerted intervention by SETAs since 2000, Trade test statistics are nowhere near their heyday. This is compounded by an ageing workforce, which, according to one report, has estimated that more than 70 per cent of current employed artisans will exit the labour force over the next five to six years (Erasmus 2008)³. Furthermore, *JIPSA and AsgiSA* estimated that in 2007, South Africa produced about 5 000 artisans a year, and that this figure will have to rise to 12 500 a year for the next four years to meet demand for a projected increase of 30 000 over the period 2007 to 2010. In JIPSA’s view this is both a ‘conservative estimate’ (of needs) and ‘a stretch target in terms of South Africa’s current capacity to produce artisans’ (PCAS 2007). Reasons for this situation

¹ One of the authors of this paper is currently Senior Manager with responsibility of managing the AATP.

² Artisan is defined here as those occupations like millwrights, electricians, plumbers, boilermakers, mechanics, fitters and turners, pattern makers, and injection moulders.

³ This was calculated on the basis that the current (as at 2008) average age of artisan is 54

include the withdrawal of state owned enterprises (SOEs) from the large-scale training of artisans; an (under)estimations of the trajectory of economic growth, and miscalculations about which sectors would grow (see Bird 2001 for an exposition of these). In addition the change from the apprenticeship to the learnership system⁴ and the mixed signals by legislation about the modular nature of the system provides important reasons for the reduction in artisan production.

The skills development system and sector education and training authorities in South Africa

The new human resources development system, within which artisan training takes place is underpinned by the 1998 *Skills Development Act* and amended in 2008 (RSA 1998), the *Skills Development Levies Act* of 1999 (RSA 1999). It was also accompanied by an *Employment Equity Act (1998)*⁵, which was designed to de-racialise and labour market and provide opportunities to those disadvantaged in the past.

The establishment of Sector Education and Training Authorities (SETAs) represent the key vehicles for responding to the skills deficit in the country. The 23 SETAs are expected as part of their mandate to identify and respond to skills deficits within their economic sectors. As the driving force behind various National Skills Development Strategies (NSDS), they locate skills development needs against a backdrop of national skills development imperatives. The Manufacturing, Engineering and Related Services Industry SETA (merSETA) is one of the larger SETAs and comprising almost 45 000 companies with a combined permanent and casual workforce of approximately 750,000. merSETA facilitates skills development in metal and engineering; Auto manufacturing; Motor retail and component manufacturing; Tyre manufacturing and Plastics industries. Funding of SETAs is drawn from a skills development levy⁶.

The Accelerated Artisan Training Programme (AATP)

We begin by providing the context for conventional training and then sketch key provisions of the accelerated programme. In the conventional arrangement for apprentice training and trade test qualification, the South African skills development training system provides the following learning pathways:

1. School leavers with a Senior Education Certificate (Matriculation Exemption) (12 years) enter a Further Education Training (FET) College and complete two levels of engineering related subjects, as part of the NATED⁷ curriculum. Each level comprised four subjects which includes 'Engineering Maths' and 'Science'. Candidates then enter into a contract (referred to as an indentured apprenticeship) with a "workplace approved" employer for a period of 3 to 4 years. In this scenario, the approximate time for completion after leaving school would be 5 to 6 years.

⁴ The establishment of learnerships was intended to broaden access to what was an exclusionary apprenticeship system historically embedded in the apartheid division of labour, and to improve employment prospects of previously disadvantaged persons.

⁵ The Employment Equity Plan for every organisation, and requires that of the beneficiaries of training, 85% should be black, 54% women and 4% people with disabilities.

⁶ All companies with payroll of over R 500 000.00 (\$ 60 000 USD) are required to contribute 1% of payroll. 80% is disbursed to SETAs (70% to be disbursed back to companies) and 20% to a National Skills Fund for National Skills Development Initiatives under a National Skills Authority (NSA).

⁷ NATED refers to National Education Department Curriculum. A curriculum that preceded the current National Curriculum Vocations (NCV) introduced in 2008.

However, the pass rates, estimated at 30%, for candidates entering the test suggests that actual time for completion is much higher than is specified (DoL 2008).

2. School leavers with a General Education Certificate (9 years) enter a Further Education Training College and complete two levels of the NATED Engineering curriculum. The approximate period for completion of the trade test is about 6 to 7 years.

3. School leavers with a Technical Education Certificate without a university pass, who have the appropriate subject choice, enter into an apprenticeship programme with the employer and complete their trade test within 4 to 5 years. Those learners who continued on the NATED curriculum from level three upwards, as well as learners on the New Vocational Curriculum, were considered more likely to succeed in an accelerated learning path to trade test from 2007.

The accelerated programme condenses the learning pathway to trade test though a 26 week period of structured institutional training (theory and simulated practical). This is followed by 54 weeks of structured workplace exposure in partnership with a dedicated artisan mentors. A learner management merSETA supportive system ensures progress through each module within existing industrial processes. One way of ensuring success is the ability of the programme to ensure that those selected have proven aptitude, on the basis of aptitude and engineering expertise (evidenced by some formal qualification). The potentials and challenges of such a system is identified below;

The benefits of such a programme include:

1. A planning system that allows an employer to recruit and train on a “just -in-time” basis.
2. A significantly increased success rate for first attempt trade test passes.
3. National development prerogatives supported by inclusion of unemployed youth.
4. Increased likelihood of employment after the trade test.
5. The programme allows for the incubation of new best practises - such as
6. above average QA requirements; inclusion and capacity building.

The challenges include:

1. Maintaining a high level of Employer participation in view of the current global economic decline, notwithstanding a generous discretionary grant.
2. Building more learning pathways into the programme that will support a quantitative increase in participants.
3. Maintaining the principle of continuous improvement in implementation.
4. Building co-operative bridges beyond the manufacturing & engineering sector into similar engineering trades for the chemical processing sector, the mining sector, transport and construction sectors.
5. Building an institutional framework within the current stakeholder environment that sustains the implementation of the programme into the future.

References

- African National Congress, Election Manifesto (2009): African National Congress, Available at http://us-cdn.creamermedia.co.za/assets/articles/attachments/19266_policy_framework.pdf
- Bird A (2001): *National Monograph on Technical and Vocational Training in SA*. Geneva: ILO.

CDE (Centre for Development and Enterprise) (2007): *The struggle for jobs: Evidence from the South African young person's survey*. Johannesburg: CDE Focus 13.

DoL(2008): Research Consortium for Artisan Trades, Scarce and Critical Skills Project, March 2008. Research commissioned by the Department of Labour, South Africa. Available at <http://www.labour.gov.za/downloads/documents/research-documents/Artisans%20trades_DoL_Report.pdf>

Erasmus, J. (2008): *Scarce and Critical Skills Verification Report: Project 4.1: A Multiple Source Identification and Verification of Scarce and Critical Skills in the South African Labour Market*, HSRC/Department of Labour: Pretoria.

Manyi, J. (2007): *What skills shortage? Panel discussion on Summit TV*, Downloaded from <http://www.summit.co.za/video/face2face.html> posted on 23.05.2007, 23:59.

McGrath, S. (2004): Introduction: the shifting understandings of skill in South Africa since industrialisation. In: McGrath, S., Badroodien, A., Kraak, A., Unwin, L. (Eds.), *Shifting Understandings of Skills in South Africa*. HSRC Press, Cape Town.

McGrath, S & Akoojee, S. (2007): Education and skills for development in South Africa: Reflections on the accelerated and shared growth initiative for South Africa, *International Journal of Educational Development*, 27 (2007) 421–434.

Presidency of the Republic of South Africa, (PCAS) (2007): *Development Indicators: Mid-term Review*. Pretoria: Government Printers.

Prinsloo, F. (2007): *National Artisan Development*, Paper delivered to SETAs by Acting Senior Manager: SETAs, Department of Labour.

RSA (1998): *Skills Development Act*. Pretoria: Government Printer.

RSA (1998): *Employment Equity Act* Pretoria: Government Printer.

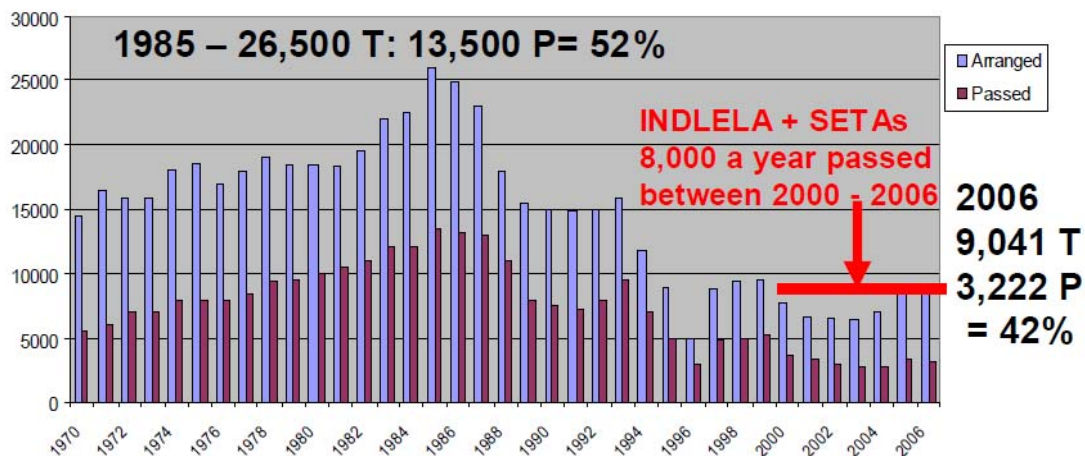
RSA (1999): *Skills Development Levies Act of 1999* Pretoria: Government Printer.

RSA (2008): *Skills Development Amendment Act*, Pretoria: Government Printer.

RSA (2008): *Human Resource Development for South Africa 2009-2030*, Pretoria, Government Printer.

Appendix A

TRADE TEST STATISTICS-COTT/INDLELA



Source: Prinsloo 2007.

Apprenticeship as a Successful Tradition and an Innovation in Croatian Education System

Olga Lui

*Department for Vocational Education and Training,
Croatian Chamber of Trades and Crafts, Ilica 49/II, 10 000 Zagreb*

Summary: In Croatia trades and crafts as well as the education and training for trades and crafts have a very long tradition. The provisions of Trades and Crafts Law, passed in 1994, regulate, among other things, the field of education for trades and crafts' occupations. This law introduced a dual model of education and training for trades and crafts' occupations. Different foreign projects (GTZ, CARDS) conducted in Croatia have put the emphasis on the characteristics of vocational education and training oriented towards labour market needs. In the framework of these projects there have been two studies with the aim of describing the state of education and training for trades and crafts, with the stress on practical implementation, and giving recommendations on improvement of the system and introduction of new qualifications needed in the labour market. One of the projects with the main goal defined as „The vocational education and training offers comply with the needs of small and medium sized enterprises“ has the following should have the following results:

- properly trained graduates who can enhance the productivity and thus improve the competitiveness of companies,
- better employment possibilities,
- reduction of social exclusion,
- strengthening the role of the economy in VET.

Keywords: Education, trades and crafts, quality, partnership

Introduction

Croatia has a long tradition of trades and crafts dating from the Middle Ages. Unlike most other former communist countries, Croatia did not have difficulties in saving its trades and crafts' tradition. In 1994, soon after Croatia became independent, Trades and Crafts Law was passed. The Law regulates the field of education for trades and crafts' occupations leaning on the tradition of education in this field as well as on new developments in education policies of European countries.

The Law regulates the dual model of education for trades and crafts which includes:

- a link between work and education (two-sided responsibility for learning outcomes),
- regulation of the whole economic subsystem of trades and crafts,
- a certain level of education required for starting and managing a trade/craft business (regulated professions)
- insistence on qualification levels: secondary school level - level 4.1 (the whole qualification for more complex professions) and master craftsman professions - level 5.1. (proposition of NQF)

- emphasis on the relations between social partners (Ministry of Science, Education and Sport, Ministry of Economy, Labour and Entrepreneurship and Croatian Chamber of Trades and Crafts) in educational processes (opinions, agreements)
- social partners' influence on the implementation of apprenticeship training programs and vocational competence programs (general and vocational contents - Ministry of Science, Education and Sport, schools and practical training - Croatian Chamber of Trades and Crafts and regional Chambers of Trades and Crafts and licensed workshops)
- regulation of tradesmen and craftsmen's involvement in the implementation of education programs – Apprenticeship Contract
- licensing of workshops for practical training by Croatian Chamber of Trades and Crafts, based on the external assessment by a board of teachers and tradesmen/craftsmen
- influence of Chambers of Trades and Crafts on establishing enrolment rates of trades and crafts' professions (Croatian Chamber of Trades and Crafts and regional Chambers of Trades and Crafts)
- external assessment of competences at secondary school level (examination boards for journeyman exams under the authority of Croatian Chamber of Trades and Crafts)
- different kinds of training programs' proposals by the economy
- proposals of curricula for further education – Master Craftsman Exams – by the economy
- possibility of formal lifelong learning – Master Craftsman School
- official authority of Croatian Chamber of Trades and Crafts, as a representative of tradesmen and craftsmen, to conduct exams
- issuing certificates for examinations at the secondary school level and in the process of lifelong learning (Master Craftsman Exams at Croatian Chamber of Trades and Crafts)
- acquiring qualifications by recognition of informal learning – recognition of practical experience: taking examinations without prior formal learning
- tradesmen and craftsmen's participation in the practical part of education (using workshops' means of work and master craftsmen - VET trainers' practical experience and knowledge)
- payment of apprentices for the work done during their apprenticeship training.

Considering that the field of education for trades and crafts was covered by only one segment of the Law on Trades and Crafts and that there was lack of cooperation between the competent ministries, one of the weaknesses of this Law was an insufficient and inadequate link to other laws on education (Law on Secondary Education, Law on Higher Education).¹

Methods and research design

The goal of the research was to describe the state of Croatian education for trades and crafts with the emphasis on its implementation in practice and to give basic

¹ That was eliminated by passing a VET Law (March 2009)

improvement recommendations for the organisation of the education system and introduction of new pilot professions which comply to labour market needs. The results should support trades and crafts' schools in using the new methodical approaches in the realisation of pilot professions (*automechatronic* and *water, gas, heating and air fitter*). The research was conducted only among three year vocational education programs for trades and crafts.

Approach

Methodical approach in the framework of the study was oriented towards:

- analysis and evaluation of the available documents (at Croatian Chamber of Trades and Crafts)
- discussions and "round tables" with the representatives of ministries and headmasters of VET schools,
- analysis of regulations (laws and bylaws),
- analysis of new educational plans and programs (*automechatronic* and *water, gas, heating and air fitter*) and identifying the advantages and disadvantages in relation to the existing programs as well as the influence of the learning outcomes on the development of qualifications oriented towards labour market
- survey of three different target groups:
 - o theory and practice teachers in four craft schools,
 - o apprentices from 11 different professions
 - o 15 tradesmen/craftsmen who conduct apprenticeship training in three Croatian towns and
- interviews with responsible representatives at Chambers of Trades and Crafts, Employment Agencies and other competent agencies (VET Agency, Agency for Adult Education)
- examining the quality of the cooperation between different stakeholders in the apprenticeship process
- the research was conducted in two phases (Phase I: 2006-2008 and Phase II 2008-2009),
- study: „Vocational education and training oriented towards labour market“.

Results

The study has shown that there is a persistent need for the improvement of curricula, learning outcomes, partnership of stakeholders in the education for trades and crafts. The dual model of education in Croatia has proven itself, but the social and economic developments ask for its continuous improvement. The basic criteria taken for the study were legal security, cooperative organisation of education, teachers' qualifications. The focus of future developments should be on:

- Systematic harmonisation of national education system for trades and crafts' professions with the European educational and occupational standards (NQF-EQF),
- reduction of supremacy of state education for trades and crafts under the leadership of trades and crafts' schools and strengthening the role of trade and crafts' businesses (parts of education which take part in trade and crafts' businesses/responsibilities),

- determination of an appropriate relation between general and VET subject matter in such a way that general subject matter is more oriented towards the profession,
- establishing cooperation between ministries, agencies, chambers, trade and crafts' businesses and VET schools, in order that education is better adjusted to labour market needs and that trade and craft qualifications are better accepted in the society
- developing the system of further education, with the aim of strengthening lifelong learning and development of professional career,
- strengthening of social competencies in order that an individual is able to realise his/her goals, has an active civil society awareness, is involved in civil events and capable of finding his place in labour market.

The activities which are necessary to ensure the achievement of these goals are:

- A larger part of education should take place in businesses in the real working environment. On the other hand – to be fair – small trade craft businesses with one or two workers usually cannot guarantee the implementation of innovative parts of the education – with the real production orders, or offer of services. The potential of work force is often not sufficient. If the relation between workers and apprentices surmounts the reasonable numbers (eg. more apprentices than workers), quality work with apprentices is not possible. The theory thought in schools which should complement the practical training in the trade craft business is often not associated to the practical training in an appropriate way. It should be considered to establish competence centres in which apprentices could acquire the necessary practical skills.
- The provisions of the Apprenticeship Contract should protect apprentices legally and socially, that is it has to be harmonised with the regulations that regulate work relations and education processes.
- The standards of practical and theoretical knowledge should be improved and interrelated. The poor quality of practical training in schools is accounted for by the out-of-dated equipment in the school workshops or insufficient training in licensed businesses (shifting of blame). It can be avoided, if the teaching in school workshops is oriented towards real practice, businesses and project work. It would ask for a new orientation in the teaching methods which presumes changes in planning, organisation and implementation of the teaching. Necessary here are the initiatives of the teachers themselves.
- The contents of education and teaching methods should always be in line with the technological development and support the economic development. The relations between the education for trades and crafts and trades and crafts themselves should be established already during the development of labour market development plan. If trade and crafts' businesses see the flexible reaction to their demands, which are changing very quickly in some professions due to technological development, they will be more ready to invest money in education. But, there is often a lack of employers' interests for the education of new generation.
- Chambers must retain their important roles in the organisation, implementation and supervision of practical apprenticeship training in businesses and be a link between stakeholders in the education processes and labour

- Education should be implemented by qualified masters – VET trainers and VET teachers in whose education should be always invested. the study has shown the lack of professional competencies especially in the field of modern technologies, European qualification standards, economic aspects of education, security at workplace and environmental protection - which both reach far beyond the profession itself, new forms of work organisation and important aspects of management and marketing and the lack of new methods and pedagogic processes connected to the changed role of the teacher.

The guiding principles for the reform in the field of the VET for trades and crafts should be concern for quality and education based on learning outcomes.

The studies made on the basis of this research have been presented at different events, in the written and electronic form, and to all stakeholders in the processes of education for trades and crafts.

Role of Social Partners and the Status of Apprenticeship in Turkey

Arjen Vos¹ and Özlem Ünlühisarcıklı²

¹ *ETF – Villa Gualino Settimio Severo 65, I-10133 Torino, Italy*

² *Boğaziçi University, Faculty of Education, 34342 Istanbul, Turkey*

Summary: Apprenticeship covers the training of those who work at enterprises to acquire a vocation within the scope of Law No. 3308, amended in 2001 into Vocational Education Law No. 4702. The amendments increased the role of social partners like professional organisations of employers and gave them new planning and implementation responsibilities in training activities. Despite the efforts, the status of apprentices in Turkey has remained rather low. This paper is based on the findings of `Third Policy Learning Workshop, Turkey` where the apprenticeship system is discussed together with some 40 stakeholders; and a series of in-depth interviews on the role of social partners in Turkey. The studies revealed that to boost up the status of apprenticeship in Turkey better publicity is needed; and a well established quality monitoring and advising systems to be implemented; and the clarity of the value and the use of the master certificate to be established.

Keywords: Apprenticeship, social partners

Introduction

Apprenticeship training¹ covers the theoretical and practical training mainly for the 14-19 years olds who are primary education graduates and work at enterprises to acquire a vocation. In this system, one day a week apprentices go to a training centre; the other five days they work at enterprises where a mentor is responsible for monitoring their work-based development. Apprenticeship training in Turkey is carried out in 36 occupational fields and 131 branches determined by the Ministry of National Education (MoNE) within the scope of Law No. 3308 that was amended in 2001 into the Vocational Education Law No. 4702. The law guarantees that companies pay apprentices at least one third of a minimum salary, while the MoNE provides the social insurance for the apprentices. Enterprises with more than 20 employees are obliged to provide training at the workplace.

Vocational Training Centres (MEM) are the major providers of apprenticeship training and each year more than 200,000 participants attend these centres. At enterprises where there are ten or more students or they have more than 200 hundred employees, training units are supposed to provide apprenticeship training. In some regions there are also Vocational and Technical Training Centres (METEM) or called Supra-Enterprise Training Centres that function in a similar way to MEMs and are run by the Confederation of Turkish Tradesmen and Craftsmen (TESK) since 1991. The Foundation for the Promotion of Vocational Training and Small Industry (MEKSA) supports TESK in running these centres. Under the scope of the Tradesmen and Craftsmen Law No. 507, TESK is liable for training, testing and

¹ The focus of this article is on the apprenticeship system and does not cover other work-based learning options like practical training of the secondary VET students.

assessment, and certification in unrecognized occupations where MoNE does not offer apprenticeship training.

TESK is a tradesmen and craftsmen organization for manufacturing and service sectors and has been involved in vocational and technical training, more than any other organization for the provision of apprenticeship training, because the training largely covers occupations that are relevant for the SME sector. Other social partners are not as involved into the apprenticeship system. TESK represents more than 90 per cent of the total number of enterprises in Turkey and has nearly 1.9 million tradesmen and craftsmen members. As an umbrella organization, TESK represents 13 Sector Occupational Federations, 82 Unions of Chambers in each of the provinces, and 3.483 Local Occupational Chambers (SVET 2006). TESK supports apprenticeship training by allocating funds from the Confederation's budget; organizing training and giving certificates; and improving the quality of vocational and technical training by means of workplace monitoring and advising. In short, TESK has a crucial role, as a social partner, in contributing to the apprenticeship system in Turkey (Ünlühisarcıklı, 2007).

In general, the awareness of the social partners in Turkey that investing in education and training pays off is very well developed. Social partners contribute actively to educational strategy discussions and are the key shapers of the Occupational Standard Sector Bodies that are set up under the Vocational Qualification Authority. Law No. 3308 stipulates that social partners should be involved in the planning, development and evaluation procedures through the Lifelong Learning Councils at national and provincial levels (Parkes et. al. 2009, Demirer et. al. 2008).

Methodology

Although Turkey has well established apprenticeship system and programmes, the MoNE acknowledges that the status of apprentices is rather low (SVET 2007).

This paper is based on the information gathered from two studies. The first one is the 'Third Policy Learning Workshop, Turkey' where the apprenticeship system is discussed together with some 40 stakeholders from different directorates of MoNE, provincial directorates, schools and training centres and from social partners in Kırşehir, in July 2008 (Vos, 2008). The second one is a series of in-depth interviews on the role of social partners in Turkey. Altogether, three directors and five deputy directors from three MEMs; and one representative from each of the two unions of chambers that run under TESK were interviewed in May-June 2009 in Istanbul, where there are many Chamber members. One TESK representative in Ankara was telephone interviewed.

Social partners and the apprenticeship system

Some of the main conclusions derived from the Kırşehir workshop are related to the positive sides of the system: In terms of legislation, the apprenticeship system in Turkey is well developed; and despite the need for technological upgrading, the system is found sufficiently funded. However, there are issues which need to be changed like the time duration of the programs; delayed entrance into the system as a result of increased years of compulsory education which requires adaptation strategies of the apprenticeship programs; and the inadequate training of teachers and mentors in enterprises.

In spite of the well developed apprenticeship system, the low status of apprentices is considered as the most burning problem of the apprenticeship system: a large part of apprentices come from lower social classes, and frequently are school drop outs. Also the status of the certificate is in many occasions not clear or recognized, as normally a mastership certificate is a pre-condition for opening a small business, but in practice business start-ups also take place without such certificate. The apprenticeship system is not well connected to opportunities for further education and training; and working conditions of apprentices in the workplaces can be quite tough.

Further interviews with MEM administrators and social partners reflected similar concerns and issues. The apprenticeship system is considered as `the last castle from the abyss` as one of the directors defined. However, they also believed employment opportunities provided an important contribution to the image. Generally the administrators considered the name change of the centres from apprentice training centres to vocational training centres positively for the image.

MEM administrators indicated that the employers are either not enthusiastic or knowledgeable about the apprenticeship system and more information collection and promotion is needed. To give an example, there are about 20 thousand registered apprentices whereas about some 200 thousand apprentices work unregistered in Istanbul. With no social security, being disposable workers adds up to the low status of apprenticeship.

MEM administrators considered the local TESK occupational chambers as important social partners for contributing the apprenticeship system. For instance, in Istanbul there are 154 local occupational chambers under the Istanbul Tradesmen and Craftsmen Chambers Union, and 15 local occupational chambers under the Istanbul Metalwork and Craftsmen Chambers Union that are eligible and responsible for registering and directing the apprentices to related MEMs for their training. However, the administrators were of the opinion that the involvement of these chambers could be more effective. This is expected specifically in two ways: by providing proper monitoring of the enterprises, and by directing more apprentices to vocational training.

Interviews with the representatives from the two unions in Istanbul revealed some difficulties on these issues. Enterprise Monitoring and Consulting Group (IDDG) are fulfilling one of the most important functions of the local occupational chambers for maintaining the quality assurance of apprenticeship training. Accordingly, each IDDG at local occupational chambers monitors and ensures that the apprentices are provided with well equipped, hygienic, secure training and working conditions. Similarly, the Union Enterprise Monitoring and Consulting Group (BIDDG) function at the provincial level to monitor the local occupational chambers. However, the interviewees from the abovementioned unions reflected that IDDGs do not function well mainly for two reasons: firstly, there are too many enterprises to be monitored and the IDDGs do not have that many members to be able to do so; secondly, the municipalities and in the case of sanctions also the police departments, are not knowledgeable about how the system works so the enterprises which do not comply with the regulations generally do not suffer the consequences. Therefore, ensuring a good monitoring and consulting system is still a challenge for the quality assurance of the apprenticeship system.

Another issue is the low numbers of membership to the local occupational chambers. Most of the small entrepreneurs run their business either unregistered or by becoming a member of the municipal Chamber of Commerce under the umbrella

organization of the Turkish Union of Chambers and Bourses (TOBB) rather than the local occupational chambers. By an addendum to the TOBB Law No 5174 (item 102), the requirement of having a mastership certificate is bypassed, if the entrepreneur is a member of the municipal Chamber of Commerce. That provides a short cut to starting up an enterprise, but in the long run harms the apprenticeship system and status extensively, because the apprenticeship and journeyman certificates that lead to mastership certificates which are granted by the MoNE or TESK do not mean much for setting up a business. Therefore, another challenge is holding to the fundamental requirements of the Law No. 3308 and keeping the functionality and credibility of the certificates.

Overall, the interviewees are of the opinion that the numbers of MEMs should be increased; the municipalities and the general public should be better informed on the job opportunities of the apprenticeship and the importance of ensuring high quality. Also, the quality of apprenticeship training would be increased by providing in-service training for teachers, trainers and mentors. Moreover, they indicate a need for sector analysis of demand and supply. At present half of the apprentices in Istanbul come from barber shops and hairdressing salons, although there is a high demand for apprentices in metalwork industry as the interviewee from the Istanbul Metalwork and Craftsmen Chambers Union mentioned. Labor market analyses should be the basis for planning the supply of apprenticeship programs in the MEMs. This would contribute to the status and the relevance of the apprenticeship.

Conclusion

The Kırşehir workshop and further interviews revealed some challenges to improve the social status of apprenticeship. The role of social partners in this process is vital. A precondition is that both TESK and TOBB would recognize only with mastership certificates one can set up an enterprise. The improvement of the monitoring and consulting is essential for increasing the quality of apprenticeship training. There is more need for capacity building for teachers, trainers and mentors. Collection and dissemination of information would give both municipalities and potential apprentices a better view of the opportunities of the apprenticeship system. This could promote the apprenticeship system as a positive choice instead of the 'last resort'. The role of TESK and TOBB is crucial.

References

- Demirer I., Aslan S., Erdinc S., Kalkan O. (2008): Involvement of Social Partners in VET Education Particularly in Tourism and Construction, Self-study Document for Turkey, Ankara, unpublished
- Parkes, D., Vos, A., Nikolovska, M. (2009): Involvement of Social Partners in Education and Training. Turin: European Training Foundation.
- SVET (2006): Strengthening the Role of the Social Partners and Social Dialogue in the Vocational Education and Training System in Turkey (Policy Paper). SVET: Ankara.
- SVET (2007): Vocational Education and Training in Turkey (Strategy Paper). SVET: Ankara.
- Ünlühisarcıklı, Ö. (2007): Apprenticeship and Enterprise-Based Learning Systems in the MEDA Region, Country Report: Turkey. Turin: European Training Foundation (Draft Document).
- Vos, A. (2008): Third Policy Learning Workshop Turkey: The Apprenticeship System. Turin: European Training Foundation (Workshop Report).

The Algerian Experience of Developing an Apprenticeship System

Mr Kayouche Sid Ali

*S/D Apprenticeship-MFEP
Ministry of Vocational Training and Education*

Summary: Following the creation of a legal basis in the 1980-s, the apprenticeship system in Algeria saw a remarkable development and rise in popularity but also periods of stagnation. In order to cope with structural challenges that became evident, public policy intervened with amendments of the basic law, the introduction of an apprenticeship tax and the launch of a programme for consolidation and further development of apprenticeship. The ambitious policy goal aims to reverse by 2014 the current trend in vocational education and training which at present shows a participation rate of 70% for residential training and 30% for apprenticeship.

Brief analysis of the development of the apprenticeship system and its difficulties

Development of the apprenticeship system

Since its implementation (at the beginning of 1982) the system of training through apprenticeship has undergone a rapid and significant expansion. After two years of effort, placements were found for around 40.000 apprentices.

As the national economy and this method of training developed, several laws were implemented to improve or amend certain provisions of this Basic Law and allow it to be adapted to each change in the system.

More than 20 years after its implementation, an assessment carried out by the vocational training services found that the system of training through apprenticeship had reached stagnation point with around 120.000 young people in apprenticeships in 2003.

It is also significant to note that between 1984 and the end of 2003, the number of apprentices only rose by 80.000 or an average of 4.000 apprentices/year, whereas the theoretical potential with a strict application of the law could provide opportunities for placing 500 000 young people in total. This shows the gap still to be filled and the work to be done to achieve results close to the possibilities offered by the national economy.

The public authorities, in a similar situation, subsequently introduced two amending laws, amending and supplementing Basic Law 1981 on apprenticeship. The main amendments relate to:

- the enlargement of the age group covered by the apprenticeship (age limit extended to 25);
- the extension of its scope to public establishments of an administrative nature (EPA – *établissements publics à caractère administratif*);
- the organisation of the apprenticeship in levels 4 and 5;
- the implementation of a mechanism for coordination with employers and professionals.

However, the measures taken to pass the amending laws of 1990 and 2000 only took effect from 1995 for the first amending law with a total number of 102 000 trainees.

The most significant effect could be seen in 2003 with more than 120.000 apprentices.

A slightly more detailed analysis of the figures recorded in 2007 shows that 210000 young people were in apprenticeships, representing a rise of 70% over the previous three years.

Out of a total of 210.000 apprentices, it was found that:

- 136.500 apprentices were in the private sector, or 65% of the total
- 73.500 apprentices were in the public sector, or 35% of the total.

The IT and Administration and Management sectors experienced a noticeable decline; however the Construction and Public Works sector, with more than 16.000 apprentices, showed an increase of 125% compared with 2004, when it only had 3 400 apprentices.

The Agriculture sector saw a rise from 750 apprentices in 2000 to 10 716 in 2006 (a 14-fold increase). Over and above the considerations relating to the regulatory provisions, the internal inadequacies of the mechanism and the difficulties encountered, the apprenticeship remains a training method which the sector expects to favour and organise more effectively.

Financing

In Algeria, a combination of a system of training wages, well-targeted public subsidies and an apprenticeship tax that penalises non-trainers provides incentives for participation both to young people and employers.

The FNAC – *Fonds National de Développement de l'Apprentissage et de la Formation Continue* [National Fund for the Development of Apprenticeships and Continuing Training] is made up mainly of two fees for continuing vocational training and apprenticeship each fixed at 1% of the total wage bill (the new Finance Act for 2007 raised each of the two fees set initially at 0.5% by the Finance Act for 1998), and payable by all businesses whatever their status with the exception of public services.

The FNAC is a public body under the supervision of the Ministry of Vocational Training and Education [MFEP] and takes all actions aiming to promote and enhance apprenticeships and continuing training. For example, it also finances 'diagnostic research' on apprenticeship training, the creation and tailoring of programmes, training of human resources involved in the apprenticeship process or supplementary payment for craftspeople and masters involved in complementary theoretical and technological training (FTTC).

The difficulties of apprenticeship training

A closer analysis of the different results of the various meetings relating to the monitoring and development of this training method found the following difficulties:

Administrative and financial aspect

The credits granted do not allow the activities linked to apprenticeships to be taken on effectively.

Apprentices placed in public establishments (EPA) encounter problems with the payment of their grants, given that the budget of these establishments does not provide for the payment of the allowance to the apprentices.

On the partnership between training establishments and businesses

The relations of the establishment with its environment in general and with businesses in particular are not sufficiently developed.

On the role of the Commissions Communales de l'Apprentissage (Local Apprenticeship Commissions)

The Local Apprenticeship Commissions do not carry out their duties as devolved by the law relating to them.

On the supervision of apprenticeships in businesses

The choice of the apprentice master in charge of supervising the apprentice in the professional environment often does not correspond to the educational and qualification requirements. In the same way there is no framework for meetings between trainers providing the Complementary Theoretical and Technological Training and the apprentice masters.

On the placing of apprentices

Businesses and craftspeople are reluctant to comply with the quotas of apprentices as laid down by the law. Consideration should be given to determining whether the business can or cannot take on apprentices.

Regarding regulation and control

The framework for the organisation of the apprenticeship within the business is not clearly defined; a system for educational monitoring should be set in place in addition to the involvement of the Labour Inspectorate.

Consolidation and development of apprenticeship training

With regard to this point, a policy of coordination was undertaken by the sector with the different partners involved. The effects of this broad coordination can already be seen in an initiative in the form of an instruction from the *Ministre de l'habitat et de l'urbanisme* [Minister for Housing and Town Planning] to the Departments for Town Planning and Construction, Departments for Public Housing and Equipment and Property to ask them to invite construction companies to participate in the national training effort by taking on a greater number of apprentices.

For the next five years, the vocational training and education sector is therefore obliged to reverse the trend which is currently 70% for residential training and 30% for apprenticeship training, to achieve 30% in residential training and 70% in apprenticeship training by 2014.

In this regard, and given the advantages of this type of training, the Ministry of Vocational Training and Education has undertaken a programme for its consolidation and development, concentrating mainly on the following:

- *Diagnostic research on apprenticeship training*
Starting from the various recommendations arising from the research, the vocational training and education sector has made use of the information collected and drawn up an operational action plan, in the short and medium term, relating to the implementation of the measures recommended by the research team.
- *Training and improvement of human resources responsible for apprenticeship supervision*

This related to the training and improvement of 48 heads of department in the wilaya¹; 2000 *Adjoints Techniques et Pédagogiques des établissements de formation (ATPA)* [Technical and Teaching Assistants in Training Establishments] and *Professeurs d'Enseignement Professionnel chargés de l'apprentissage (PEPA)* [Teachers of Vocational Training responsible for apprenticeships] and 1000 apprentice masters.

- *The creation of training programmes tailored to apprenticeship training*
For 2008, more than 65 training programmes have been tailored following the new methodological approach.
- *The development of teaching methods for apprenticeship training by means of*
 - a) The implementation of an approach called “trade regulation”. This aims to improve training by ensuring better consistency and complementarity of apprenticeships, namely theoretical training in the establishment and practical training in the business.

This approach which was tried in seven wilayas showed the following:

- greater motivation of apprentices;
 - better organisation of courses;
 - significant reduction in absenteeism and drop-out rates;
 - increased support from businesses.
- b) The implementation of a tailored methodology for structuring training programmes and courses as well as instruments to manage and monitor apprenticeships

This intention to ensure an improved quality of apprenticeship training can already be seen in several guides which have been produced and are currently being validated:

- guide to creating and structuring apprenticeship training programmes and courses;
 - guide for the apprentice master;
 - guide to the organisation and management of apprenticeship services in training establishments.
- *Apprenticeship in the Conferences on Vocational Training and Education*
The different actions, as seen in the form of the recommendations at the Conferences, were presented in the form of an action plan, as follows: 1 – Organisational and structural aspect; 2 – Relations and coordination aspect; 3 – Regulatory and legal aspect; 4 – Educational aspect; 5 – Financial aspect.

Prospects for the reorganisation of apprenticeship training

The reorganisation of this form of training must also be planned, in the short, medium and long term, by implementing the following actions:

- Develop the apprenticeship in the sectors considered to be strategic;

¹ Algeria is divided into forty-eight territorial authorities called wilayas. The wilaya is a local authority which has a legal personality and financial autonomy. It is also an administrative division of the Algerian State. It has an elected assembly called the APW ('Assemblée populaire de wilaya' – People's Assembly of Wilaya) and is under the authority of a wali (prefect). The wilayas are divided into dairas, which in turn are divided into communes.

- Restructure training programmes to adapt them to the specific aspects of the apprenticeship;
- Devise and implement an organisation to ensure the fair distribution of resources between the different training methods;
- Initiate an annual programme of educational training for apprentice masters, ATPA and PEPA;
- Develop teaching methods linked to the apprenticeship through the network institutions;
- Specialise regional centres in apprenticeship (the specialisation of EFP - *établissements de formation professionnelle* [vocational training establishments] in the families of the predominant trades in relation to their teaching allocation (create an educational map of the area with each establishment specialising in one or several vocational sectors);
- Harmonisation of entry dates for apprentices;
- Homogenisation of groups of apprentices for the FTTC (Complementary Theoretical and Technological Training) by level and speciality.

'Last Mile to the Job – Training on Demand in the IT Offshoring Sector'

Mohamed Slassi Sennou

*Confédération Générales des Entreprises du Maroc, Commission Formation¹
23, Rue Mohamed Abdou, Palmiers – Casablanca, Morocco*

Summary: For two years, Morocco has had considerable success as a platform for providing offshoring services, which has created a highly dynamic emerging sector: the Offshoring sector. This sector is characterised by considerable employment potential, by employers who are demanding in terms of the quality of the human resources they need and by rapidly changing skills requirements, particularly in the IT Offshoring sector. This has highlighted a glaring mismatch between the national production scheme and the employment market in this sector, the result of an inflexible training system which fails to take account of the needs. This paper shows how important it is to draw on good practices adopted within the field of Industrial Operations Management in order to improve the scheme's production processes on a national scale for the rapidly-growing labour catchment by producing people with the required skills and ensuring that the processes evolve in parallel.

Keywords: Matching job training, training on demand, qualification training process, production management.

Introduction

In order to promote the adoption of a proactive economic strategy by public authorities, and a targeted and relevant promotion of Morocco as an offshoring destination (IT Offshoring, Business Process Offshoring, Customer Relations), Morocco has attracted large international companies and thus won a sizeable share of the world's offshoring market. Since last year, it has been included in the highly coveted group of the 30 best Offshoring destinations, according to a study by the Gartner Group. However, Morocco's Achilles' heel is unquestionably the quality of its human resources. At the beginning of 2008, employers within the sector noticed high turnover of staff and wage increases, reflecting the skills shortage. This resulted in a loss of company competitiveness and consequently constituted a threat that seriously endangered the future of this new labour catchment and its recently-acquired status.

According to a study conducted by the APEBI (Association of IT, Telecommunications and Offshoring Professionals) among its members, the major problem resides at two levels:

1. The ability of the training scheme to produce people with 'soft skills' to an acceptable international standard, particularly the considerable lack of skills in communication (command of the working language which is usually French) and lack of awareness of appropriate behaviour in the working environment.
2. The ability of the training system to adapt and indeed anticipate skills requirements in the Offshoring sector.

¹ *General Confederation of Moroccan Businesses, Training Commission*

The idea of adapting the good practices adopted in the Production Management of goods to the Production Management of Skills is not new. What does appear to be new, however, is the design and implementation of processes that tailor the response to the mismatch between the labour catchment and training by providing the value chain of national production with a 'finishing school' training system through retraining/qualification, controlled by demand. In Industrial Operations Management, this is called: 'delayed differentiation', a concept that enables a product to be tailored to the needs of a specific target consumer. Unlike Operations Management, this 'finishing school' training is controlled directly by demand, in other words by the employers themselves. This has given rise to the ForShore 3000 Project, a Public/Private Partnership project which provides training for the IT Offshoring sector for 3000 engineers and technicians by giving them redeployment qualification training over a 12-month period.

Methods and research design

The best practices in Operations Management teach us that good governance of production systems hinges on two factors:

1. Matching Demand to Production, which involves a value issue.
2. Optimising the Cost/Efficiency ratio, which involves a cost issue.

The organisations that have modelled themselves on these two factors are flexible, creative and cooperative. But this cannot be achieved without the existence of a network of various multidisciplinary stakeholders, driven by a shared ambition, who cooperate, learn and develop together. This is the case as regards the processes of ForShore 3000, as we shall see later.

Matching Demand to Production

The Project is based on four stakeholders and six processes. *The stakeholders are:*

1. The market, represented by the APEBI, the association of the sector's employers.
2. The Public Authorities, represented by two bodies. One is responsible for the Industrial and Commercial Development Strategy of Morocco (the Ministry of Commerce and Industry – MCI) and the other is responsible for promoting employment (the National Agency for the Promotion of Employment and the Development of Skills – ANAPEC).
3. The Training Bodies (TB) selected and qualified to take part in the Project.

The market (employers) lies at the heart of the qualification/redeployment training 'finishing school' production system because it operates at all levels, from defining needs to recruiting the employee, as shown in the process table below. This gives the project the flexibility required by the sector as it is capable of following, or even anticipating, demand – both as regards quality and quantity.

The following table summarises the role of each stakeholder in the processes.

Stakeholders/Processes	APEBI	MCI	ANAPEC	TB
Selection of Candidates	Responsible		Logistical Support	
Selection/Qualification of TBs	Validation	Logistical Support	Responsible	
Assessment of Job/Trade needs	Responsible	Validation	Logistical Support	
Training Programmes	Validation, Assessment		Assessment & Monitoring	Preparation & Delivery
Placement/Recruitment of successful trainees	Responsible		Assessment & Monitoring	
Funding	Assessment		Responsible	

Figure 4: Stakeholders/Processes in the ForShore 3000 Project

Evolving processes in parallel

The other idea borrowed from the good practices adopted in the field of Operations Management is that of evolving processes in parallel.

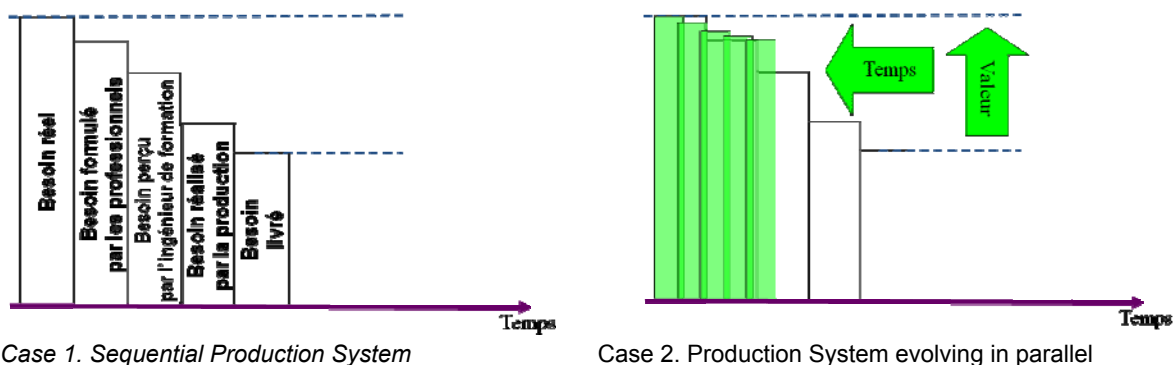


Figure 5: Evolving Processes in Parallel*

*Key to Figure 2

<i>Besoin réel....</i>	Actual Need Need as seen by the sector professionals Need as seen by the training developer Solution created by training developer Solution delivered
<i>Temps</i>	Time
<i>Valeur</i>	Value

As you can see, a production system directed by demand and evolving in parallel results in increased production (value) and reduced costs.

In the case of the ForShore 3000 Project, it has been possible to develop processes in parallel as a result of implementing a common frame of reference between the stakeholders. This is the Job/Trade Register (known as the REM) and the Job/Skills Register (REC) which gives an exhaustive list of the jobs within the sector and describes, for each trade, the associated know-how and necessary skills (technical competence, relationship skills, workplace behaviour, procedural knowledge, etc.).

Thanks to this, the definition of a trade in the REM (by the employers) automatically results in defining the skills requirements and consequently, in translating them into the pedagogical content devised and delivered by the Training Bodies, with approval fed back by the employers.

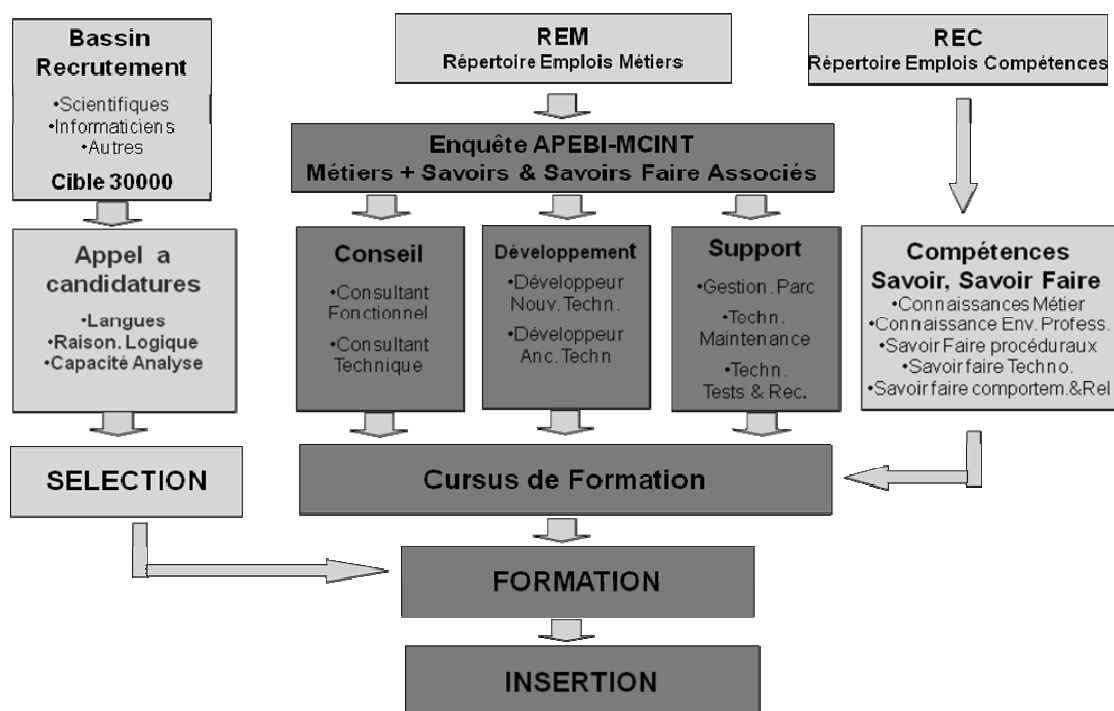


Figure 3: ForShore 3000 Process*

Key to Figure 3

<i>Bassin recrutement...</i>	Recruitment Pool - Scientific personnel - IT specialists - Others 30 000 Target
<i>REM...</i>	REM Job/Trade Register
<i>REC...</i>	REC Job/Skills Register
<i>Enquête...</i>	APEBI-MCINT Survey Jobs + Knowledge & Associated know-how
<i>Appel...</i>	Call for Applications - Languages - Reasoning/Logic - Analytical ability
<i>Conseil...</i>	Consultancy - Operational Consultant - Technical Consultant
<i>Développement...</i>	Development - New Technology Developer - Old Technology Developer
<i>Support...</i>	Support - Fleet management - Maintenance Eng. - Tests & Accep. Eng.
<i>Compétences...</i>	Skills, Knowledge, Know-how - Knowledge of Trade - Knowledge of Prof. Env.

	- Procedure Know-how - Techno. Know-how - Behav. & Rel. Skills
<i>SELECTION</i>	SELECTION
<i>Cursus...</i>	Training Course(s)
<i>FORMATION</i>	TRAINING
<i>INSERTION</i>	RECRUITMENT/EMPLOYMENT

Results

The ForShore 3000 Project was launched six months ago as a pilot scheme. Around 200 engineers and technicians have been trained to meet the needs of this burgeoning sector. 100% of successful trainees will be recruited by the employers who selected them on entry and mentored them throughout the entire duration of their training.

A study assessing the pilot scheme has been initiated and will doubtless reveal the strengths on which we will capitalise and the weaknesses that we need to rectify.

But already, one aspect that the scheme has revealed is that it is self-regulating. In fact, since the end of 2007, when the employers estimated that the number of engineers and technicians required by the end of 2009 would be 3000, the sector has experienced a slowdown due to the global crisis. Automatically, demand has dropped, with only 1000 successful trainees being recruited through this selection process up to the end of 2009. This trend may be reversed and will be clearly visible to the ForShore 3000 processes.

These processes are currently being studied by ANAPEC with a view to extending them to other sectors (Tourism). Similarly, certain sources of funding⁽¹⁾ that are striving to improve the employability of young people have shown considerable interest.

Last but not least, the methodology of finishing by qualification/redeployment training built on the ForShore 3000 process has by its very existence persuaded investors that Morocco is the right destination. Thus, its ability to have a positive effect on the competitiveness of companies by reducing the time-to-market of the production of skills, has considerably reduced the threat to this emerging labour catchment.

References

- Répertoire Emplois Métiers, Répertoire Emplois Compétences. Meda 2. Maroc Compétence. *April 2009.*
- Etude des besoins en Compétences dans le secteur de l'IT Offshoring. *November 2007. DNPT/MCI. Rabat.*
- Processus du ForShore 3000. APEBI. Commission Ressources Humaines. *December 2007. M. Slassi Sennou & M. Taieb Debbagh.*
- Implication des Professionnels dans le Dispositif de la Formation Professionnelle. Assises des la FP. Atelier Gouvernance. *October 2006. CGEM. Commission Formation. M. Slassi Sennou.*
- Management des Opérations Industrielles. Proconseil.net. ESCP. March 2005. Pierre Marie Gallois.*
- SILATECH (Qatari fund for improving the employability of young people in the Arab world).

A Renaissance for Apprenticeship Learning? - and it's Implications for Transition Countries

Sören Nielsen

European Training Foundation (ETF)

Summary: This contribution will discuss the contemporary 'renaissance' of apprenticeship on the backdrop of realities in transition countries. Learning organised as apprenticeship depends historically and culturally on a self-regulated social organisation. The paper sums up the notion of the 'renaissance' of innovative apprenticeships by pointing out the potentially positive implications for VET system 'transmission' (in particular school-to-work transition) and 'transition' (student flows, distribution and resource demands/productivity).

Keywords: school to work transition, renaissance of TVET

Introduction

In Claudio Magris "Danube", a Mittel-Europa tradition in the social organisation of society is described. He tells about a Danube bed tradition, where the German apprenticeship system has set its imprint on countries along the road to the Black Sea, inspired by the German 'Handwerker'-tradition and its institutions being brought along in the "Ulm-Kassen" transporting the German settlers down the Danube. It is based on apprenticeship, social partnership in the form of the guilds, and strong social status and professional pride of competent skilled workers.

In the Straight Street in Damascus there is an exquisite shop and workshop producing fine handicrafts in wood with an owner/Master craftsman who has become very rich. In a shabby side-street there is a very small shop with a poor and bitter craftsman who was an apprenticeship in the fine workshop for 8 years with next to no salary and now unable to compete.

In Riga the two most beautiful and proud buildings are the houses of the Kaufmänner and the Handwerker, built in the Middle Ages by the German guilds in a country where before no native Latvians were allowed to work with bricks, were forbidden to enter an apprenticeship, and only allowed to stay at night on the Riga side of the Daugava in case of fire.

These examples illuminate that learning organised as apprenticeship depends historically and culturally on a self-regulated social organisation. It must be built on strong social partnership with recognised and fair access, willingness of companies to participate, approved work contents in terms of technology and job construction, and statutory time servicing requirements. In short, it must be based on a contractual arrangement.¹ These conditions are not easy to establish and make it difficult to introduce apprenticeship systems in countries in transition. On the other hand, the learning opportunities of work-based learning are so rich, also if lifelong learning is

¹ This requirement goes both ways. The Syrian example shows that unregulated apprenticeships can result in exploitation. In Denmark from 1905 all new apprentices had to had in their contracts to the local head of police to ensure that they did not run away as soon as they had learned enough. The 'apprenticeship investment calculation' is based on a duration of time which balances the initial costs with later profits for companies.

ever to become a reality, that we must try to devise concepts and test models which tap into such leaning arenas also in VET reform strategies in ETF partner countries.

A discussion is currently ongoing on a 'renaissance' of apprenticeship as a contemporary learning form relevant e.g. in IT-based changes on work organisation.² Richard Sennett³ argues that we now have to find back to the intrinsic values of the traditional way of qualifying skilled workers and ensure that skills are given the necessary time to develop, that skills are learned in a social context and that the training of the competent skilled worker is based on exercise, exercise, exercise – "the golden rule is 10,000 hours", he states. Craftsmanship is about continuously finding new and refined ways to make things function and to learn from what does not function well.

This perspective on learning is not new. In the *Nichomachean Ethics*⁴ Aristoteles analyses the qualitative difference between theoretical (*episteme* and *teoria*) and practical knowledge (*techne* and *fronesis*)⁵, and he emphasises that we learn the skills we need by doing the activities we are to master. Practice as a learning arena possesses its own knowledge forms with specific and adequate learning acquiring forms.

The new renaissance discourse is not really a renaissance of the classical apprenticeship model as such, which is still the essence of VET in its dual form in countries from Switzerland to Norway. The 'renaissance' is a reflection of the fact that pedagogical science has become aware of apprenticeship as an attractive form of learning, and that modern changes in working life leads to expectations of learning 'in practice' at the workplace. This development is obviously of great relevance for VET. It is against these major societal changes that apprenticeship or work-based learning has again come into focus as part of the development of the new learning concept, e.g. in new concepts such as 'the learning organisation', 'lifelong learning', learning in 'communities of practice', 'situated learning', 'legitimate peripheral participation', and 'the reflective practitioner'.

Methods and research design

This paper builds on empirical analyses on work-based learning⁶ and reflections on challenges experienced in transition countries, and analyse the learning potentials in 'external' working life contexts and not go into discussions on 'internal' learning processes of the individual. Learning theory has concentrated too much on the formal aspects of learning studied as processes 'inside' the individual while neglecting the social practice in which learning takes place. A key perspective for this research interest has been the conceptualisation developed in an OECD study⁷, in which education and training is described as located in a 'learning landscape' where the learner has options making it possible to establish an individual 'pathway' in the form

² Winther, S.J.; Taylor, S.L. (1996). The role of IT in the transformation of work: A comparison of post-industrial, industrial and proto-industrial organization. *Information Systems Research*, 7, pp. 5-21.

³ Sennett, R. (2008), *The Craftsman*, New Haven: Yale University Press.

⁴ Aristoteles (1995). *Nichomachean Ethics*, Loeb Classical Library. Cambridge: Harvard University Press.

⁵ For an in-depth analysis of the theory-practice knowledge conceptualisation in Aristoteles, see Saugstad, T. (2002) Theory and practice in an Aristotelian perspective. In: *Scandinavian Journal of Educational Research* 46, p. 373-390.

⁶ Nielsen, K.; Kvale, S. (ed.) (2003). *Praktikkens Læringslandskab. At lære gennem arbejde*. Akademisk Forlag.

⁷ OECD (1998). *Pathways and participation in vocational and technical education and training*, OECD: Paris.

of a personal training plan. This is different from the previous idea that courses of education consist of a few standard programmes, the same for all and with students divided into classes following each other and learning at the same pace. This pragmatic view emphasises social practice, situated learning and possibilities for learning in communities of practice in a workplace. Increasing scholastic learning in VET has impaired the possibilities for students to take a walk in precisely the learning landscape where they are supposed to function professionally after the education.

A careful analysis of learning potentials in the learning landscapes of work can give guidelines for VET reforms in transition countries. We can start to analyse company training and VET school education as separate learning arenas and argue - based on Aristoteles⁸ understanding of knowledge and learning - that many problems inherent in the school-company interplay are caused by the fact that these two learning landscapes are fundamentally organised differently.

Learning is also related to development of a vocational identity, acquiring of responsibility, coping with (also routine) work tasks as they come, broader socialisation both in broader terms as well as to the concrete workplace layout and tools/machine systems. First and foremost learning concerns how to become a specific type of person, a carpenter, a baker, an electrician, etc. Schools are good at providing 'spectator' skills while companies are good at providing 'participant' skills. Both learning arenas are needed. It is a paradox that workplace learning is highly preferred by apprentices in dual VET systems compared to the immediately much more comfortable school-class learning, so there is also a strong student motivational reason for restructuring VET programmes.

The learning topographical approach and flexible organisation, which individualise learning pathways, have important implications for the design of the 'didactical room', a widening of which could probably be a first step in transition countries. A new strategy for VET reform in transition countries could therefore focus on reorganising the school workshops with local employer support, as a next step towards bringing the renaissance of apprenticeship and the landscape of learning thinking forward. Guidelines for such initial reform initiatives could be the following.

In many transition countries VET is organised in subjects; the contents and goals of basic technological subjects are mostly described by the basic laws of the natural sciences in their relation to basic technology. Technological descriptions of the functions and structures of basic machinery often miss the relevance to modern technological systems.

In most cases students have a week or month-long practice in a company. This practice is not sufficient to understand the world of labour, but it could be very helpful to analyse its organisation and to transfer good practice into school workshops.

Between schools and local companies there often exists a traditional network, based on individual contacts between directors of schools and companies, or between teachers and local companies to get jobs for students. Societal institutions only die slowly and there are some opportunities to re-establish links with the companies but to widen networks to include small and medium-sized companies.

There is a sharp division between theory and practice, between classroom and workshop, and between VET teacher and trainer functions, which is harmful to students' competencies if teachers, trainers and students do not learn to combine technological theory and the labour process with the actual functioning of machines

⁸ Aristoteles (1995). *Nicomachean Ethics*, Loeb Classical Library. Cambridge: Harvard University Press.

and tools. Needed in most transition countries is a new configuration of teaching, learning and practical work exercises.

Results

The paper draws two lessons of the analysis carried out.

1. Learning inspired by the actual developments of learning theory and the 'renaissance' of apprenticeship can be organised in learning arrangements in countries of transition in VET school workshops enabling the work-based or logic of production approach to be operationalised in practice. This is the most realistic innovation strategy for most transition countries.
2. Re-establishing apprenticeship in ETF partner countries in a modernised form of the classically regulated tradition of the guilds will require fundamental organisational and societal changes to avoid the obstacles mentioned in the three cases introducing this paper. Components of the apprenticeship system in modernised forms could be a potential strategy and would probably profit more from contemporary examples of modern apprenticeship in countries like Finland and the UK⁹ not bound by the burden of long cultural and historical lines.

Such reforms would have a positive impact on education system transition and transmission and is therefore worthwhile to invest in.

References

- Aristoteles (1995). *Nicomachean Ethics*, Loeb Classical Library. Cambridge: Harvard University Press.
- Bertelsmann Foundation (ed.) (1999). *Vocational Education and Training of Tomorrow*, Bertelsmann Foundation Publishers, Gütersloh.
- Boreham, N.; Lammont, N. (2001). *Work Process Knowledge in Technological and Organisational Development. 'WHOLE' project*. European Union Directorate-General XII Framework Programme IV Targeted Socio-Economic Research Programme.
- Nielsen, K.; Kvale, S. (ed.) (1999). *Mesterlære – læring som social praksis*. Hans Reitzels Forlag.
- Nielsen, K.; Kvale, S. (ed.) (2003). *Praktikkens Læringslandskab. At lære gennem arbejde*. Akademisk Forlag.
- OECD (1998). *Pathways and participation in vocational and technical education and training*, OECD: Paris.
- Parkes, D.; Nielsen, S. (2006). *A Cross-Country Analysis of ETF Peer Reviews on Curricular Reform in Vocational Education and Training in Four South East European Transition Countries*. European Training Foundation.
- Saugstad, T.. (2002) Theory and practice in an Aristotelian perspective. In: *Scandinavian Journal of Educational Research* 46, p. 373-390.
- Sennett, R. (2008) *The Craftsman*, New Haven: Yale University Press.
- Wenger, E. (1998). *Communities of Practice, Learning Meaning, and Identity*. Cambridge: Cambridge University Press.
- Wenger, E.; Leave, J. (1991). *Situated learning, Legitimate Peripheral Participation*. Cambridge University Press.
- Winther, S.J.; Taylor, S.L. (1996). The role of IT in the transformation of work: A comparison of post-industrial, industrial and proto-industrial organization. *Information Systems Research*, 7, pp. 5-21.

⁹ See for instance the initiative "AnApprenticeship" which was formed to offer a unique reference point on advice on being or employing an apprentice. <http://www.anapprenticeship.co.uk>