

# **Unravelling Policy, Power, Process and Performance**

The Formative Evaluation of the Dutch Adult and Vocational Education Act

**Wim J. Nijhof & Wil van Esch (eds.)**

## Colophon

- Title** Unravelling Policy, Power, Process and Performance : The Formative Evaluation of the Dutch Adult and Vocational Education Act
- Editors** Wim J. Nijhof & Wil van Esch
- Design** Evert van de Biezen (with help from Monique Kole)
- Published by** CINOP  
's-Hertogenbosch, January 2004

© CINOP 2004

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without permission in writing from the publishers.

ISBN 90-5003-421-7



Centrum voor innovatie van opleidingen  
(Centre for innovation of education and training)  
P.O. Box 1585  
NL-5200 BP 's-Hertogenbosch  
Telephone: +31 (0)73-6800800  
Fax: +31 (0)73-6123425  
[www.cinop.nl](http://www.cinop.nl)

# Contents

<b>List of Contributors</b>	<b>I</b>
-----------------------------	----------

<b>Acknowledgements</b>	<b>5</b>
-------------------------	----------

1	<b>Introduction – Wil van Esch &amp; Wim J. Nijhof</b>	<b>7</b>
1.1	Introduction	7
1.2	Overview	8

## **SECTION I THE CONTEXT AND THE QUESTIONS 13**

2	<b>The process of shaping a responsive VET system; a reconstruction – Wim J. Nijhof</b>	<b>15</b>
2.1	Prelude	15
2.2	Responsiveness and flexibility as ‘Leitmotiv’	19
2.3	Interlude: short-term interventions and intermediations	21
2.4	Effect: from memorandum on the key issues to the Adult and Vocational Education Act	23
2.4.1	Basic aims	23
2.4.2	Quality control in the Adult and Vocational Education Act	25
2.4.3	Attainment targets	25
2.4.4	Study programmes, learning pathways and modules	29
2.4.5	Modular learning pathways	32
2.5	Towards a qualification system and structure as a condition for responsiveness	34
2.6	Coda	35
	References	38
3	<b>Evaluation of an Act: methodology and process – Klari-Janne Polder</b>	<b>43</b>
3.1	Introduction	43
3.2	Theory of evaluation	45
3.3	Content of the Act	46
3.4	Methodology and process of the evaluation	47
3.4.1	Selection of evaluation themes	48
3.4.2	Status and tasks of the Steering Committee	50
3.4.3	Scientific evaluation programme	52
3.4.4	Hearings	53
3.4.5	Final evaluation report	53
3.5	Conclusions and discussion	54
	References	54

## **SECTION 2    RESPONSIVENESS OF THE SYSTEM    57**

<b>4</b>	<b>The effectiveness of the qualification structure</b>	
	<b>– Jittie Brandsma</b>	<b>59</b>
4.1	Introduction	59
4.2	The development model for the qualification structure	60
4.3	Characteristics of the qualification structure	63
4.4	Evaluation of the qualification structure	65
4.4.1	Evaluation criteria: operationalisation and analysis	65
4.4.2	Research questions and research design	66
4.5	Results	67
4.5.1	Development, maintenance and renewal of the qualification structure	67
4.5.2	Expectations with regard to the qualification structure	69
4.5.3	Impeding factors	70
4.6	Conclusions and discussion	71
	References	75
<b>5</b>	<b>Promoting the macro-efficiency of vocational education?</b>	
	<b>– Lex Borghans &amp; Hans Heijke</b>	<b>79</b>
5.1	Introduction	79
5.2	Effective vocational education: some theoretical considerations	81
5.3	The control model	85
5.4	Qualification development: the role of lead bodies	86
5.5	Macro-efficiency advice: The role of the ACOA	89
5.6	The study programmes offered: the role of community colleges	92
5.7	Conclusions and recommendations	94
	References	96

## **SECTION 3    FLEXIBILITY OF THE VET SYSTEM    99**

<b>6</b>	<b>The flexibility of secondary vocational education – Elly de Bruijn, Cees Doets &amp; Wil van Esch</b>	<b>101</b>
6.1	Introduction	101
6.2	Flexibility	102
6.3	Research question and methodology	104
6.4	Premises of public policy regarding flexibility	105
6.5	Realisation in practice	108
6.5.1	Organisational flexibilisation	108
6.5.2	Flexibilisation of learning pathways	109
6.5.3	Flexibilisation of the curriculum	111
6.5.4	Pedagogical flexibilisation	112
6.6	Limits to flexibilisation?	112
	References	114

7	<b>Internal Efficiency and Flexibility – Jos W.G. Geerligs</b>	<b>115</b>
7.1	The methodological question	<b>115</b>
7.1.1	Four indicators of internal flexibility	<b>115</b>
7.1.2	The algorithms of the indicators	<b>117</b>
7.1.3	Ways to calculate the indicators	<b>119</b>
7.2	The practical use of the indicators	<b>119</b>
7.2.1	The CBS monitoring of Dutch VET	<b>119</b>
7.2.2	The analysis of effects of dualisation and the qualification structure	<b>120</b>
7.2.3	The WEB evaluation (1)	<b>123</b>
7.2.4	The WEB evaluation (2)	<b>125</b>
7.3	Conclusion	<b>127</b>
7.3.1	The use of indicators – advantages and disadvantages	<b>127</b>
7.3.2	The normative question	<b>129</b>
7.3.3	Practical problems	<b>130</b>
7.4	Discussion	<b>131</b>
	References	<b>132</b>

## **SECTION 4    QUALITY OF THE TEACHING AND LEARNING PROCESSES    133**

8	<b>Improving the quality of teaching-learning arrangements in VET – Loek Nieuwenhuis, Regina Mulder &amp; Henk van Berkel</b>	<b>135</b>
8.1	Attractiveness and consistency as criteria for quality: introduction	<b>135</b>
8.2	Assessing the impact of policy measures	<b>138</b>
8.3	The impact of legal and institutional quality instruments	<b>140</b>
8.4	Organising attractiveness and consistency	<b>142</b>
8.5	Conclusive remarks	<b>144</b>
	References	<b>146</b>
9	<b>The quality of the apprenticeship system – new roles and tasks in work-based learning – Jos Frietman</b>	<b>147</b>
9.1	Changing roles and tasks	<b>147</b>
9.2	Work-based learning	<b>148</b>
9.3	The quality of internships	<b>149</b>
9.3.1	Stages of work-based learning	<b>149</b>
9.3.2	Student support	<b>151</b>
9.4	Responsibilities and quality in workplace learning: actor's roles	<b>152</b>
9.4.1	The community college	<b>152</b>
9.4.2	The role of employers	<b>153</b>
9.4.3	Information exchange between community colleges and placement companies	<b>153</b>
9.4.4	The role of the lead bodies for vocational education	<b>154</b>
9.5	Responsibilities and quality of work-based learning: the sectors	<b>155</b>
9.6	Summary and conclusions	<b>156</b>
9.7	Tasks and responsibilities in practice	<b>156</b>

9.7.1	The quality of work-based learning	<b>158</b>
	References	<b>159</b>

## **SECTION 5 REGULATING THE OUTPUT OF THE VET SYSTEM 161**

10	<b>The Quality of Examination arrangements – Regina Mulder, Loek Nieuwenhuis &amp; Henk van Berkel</b>	<b>163</b>
10.1	Introduction	<b>163</b>
10.2	Requirements for proper examination	<b>164</b>
10.3	The examination system according to the WEB	<b>166</b>
10.4	The system at work	<b>169</b>
10.5	Conclusions and future perspectives	<b>172</b>
	References	<b>175</b>
11	<b>The returns to vocational education in the Netherlands – Rolf van der Velden &amp; Maarten Wolbers</b>	<b>177</b>
11.1	Introduction	<b>177</b>
11.2	Data and model	<b>178</b>
11.3	Transfer to continuing education	<b>180</b>
11.4	Labour market entry	<b>184</b>
11.5	General opinion of study programmes	<b>190</b>
11.6	Conclusions and discussion	<b>194</b>
	References	<b>196</b>

## **SECTION 6 THE QUALITY OF THE SELF-REGULATED INSTITUTIONS 199**

12	<b>The Policy-making capacity of community colleges – Peter Karstanje &amp; Louise van de Venne</b>	<b>201</b>
12.1	Capacity to pursue policy	<b>201</b>
12.2	'Past' research	<b>203</b>
12.3	Recent research	<b>206</b>
12.4	Conclusions and discussion	<b>213</b>
	References	<b>216</b>
13	<b>The Funding of VET and Adult Education – Dick van Ingen</b>	<b>217</b>
13.1	Introduction	<b>217</b>
13.2	Funding arrangements	<b>218</b>
13.2.1	Sources of funding	<b>218</b>
13.2.2	Systems of funding	<b>219</b>
13.2.2.1	Vocational education and training (VET)	<b>219</b>
13.2.2.2	Adult education	<b>220</b>
13.2.2.3	Education of new immigrants	<b>221</b>
13.3	Analysis of functionality	<b>222</b>

13.3.1	Funding of VET	222
13.3.2	Funding of Adult education	224
13.4	Conclusions and policy recommendations	225
	References	229

## **SECTION 7 REFLECTIONS 231**

### **14 The Evaluation of the Adult and Vocational Education Act: conclusions – Klari-Janne Polder 233**

14.1	Introduction	233
14.2	Outcomes of the scientific evaluation	234
14.3	About the use of evaluation outcomes	238
14.4	Political evaluation process	239
14.5	Effects of the evaluation	239
14.6	Conclusions and discussion	242
	References	243

### **15 Looking ahead – Recent developments in Dutch VET Policy – Wil van Esch 245**

15.1	Introduction	245
15.2	Recent developments: the seven policy themes	246
15.2.1	The national qualification structure for MBO (upper secondary vocational education)	246
15.2.2	The public administrative steering of vocational practice training	248
15.2.3	The external legitimation and quality of examining	248
15.2.4	The accessibility of education and individual courses	249
15.2.5	The position of the student	249
15.2.6	Internal and external supervision	251
15.2.7	The administrative steering of adult education	251
15.3	Mid-term issues	251
	References	252

### **16 Paradoxes, Pitfalls and the Prospects for a Dynamic VET System – Ewart Keep & Alan Brown 255**

16.1	Introduction	255
16.2	Evaluating the Dutch Reforms – Questions of Process	256
16.3	Planning Systemic Change	258
16.4	Problems and Issues	259
	References	264

### **Glossary 267**





---

# List of Contributors

**Henk van Berkel** is an Associate Professor at Maastricht University in the Netherlands. He received his PhD at the University of Amsterdam in 1984. He is the founder and editor of “Advances in Health Sciences Education” and “Exams” and has published ten books on such topics as quality assurance and educational testing. His web site is: [www.personeel.unimaas.nl/h.vanberkel/](http://www.personeel.unimaas.nl/h.vanberkel/)

**Lex Borghans** is a Senior Researcher at the Research Centre for Education and the Labour Market (ROA) of Maastricht University. Postal address: Lex Borghans, ROA, P.O. Box 616, 6200 MD Maastricht. E-mail: [l.borghans@roa.unimaas.nl](mailto:l.borghans@roa.unimaas.nl)

**Jittie Brandsma** is a Senior Researcher at the Faculty of Behavioural Sciences, University of Twente, the Netherlands, where she received her PhD in 1993. Her main research areas are innovation and the effectiveness of initial and continuing vocational education and training; training for the least qualified, and lifelong learning. She has been involved in various national and international projects.

**Alan Brown** is a Principal Research Fellow at the Institute for Employment Research at the University of Warwick. He is also an Associate Director of the Economic and Social Research Council's Teaching and Learning Research Programme with responsibility for research on work-related learning and international collaboration.

**Elly de Bruijn** is a Senior Researcher in the Research Department of CINOP, the Dutch organisation for innovation in VET located in 's-Hertogenbosch. Until 2001, she was a researcher at the SCO-Kohnstamm Institute and a university lecturer in educational theory at the Department of Educational Science of the University of Amsterdam. She publishes in the field of education and labour, in particular with respect to vocational education. E-mail: [ebruijn@cinop.nl](mailto:ebruijn@cinop.nl)

**Cees Doets** is Director of the Expertise Centre of CINOP at 's-Hertogenbosch. He obtained his PhD in 1982. His main research areas are adult education, vocational training and lifelong learning.

**Wil van Esch** is a Senior Policy Researcher in the Research Department of CINOP. Before this, he worked as a project manager at the Institute for Educational Research at The Hague and as a senior researcher at the Institute for Applied Social Sciences at the University of Nijmegen, where he received his PhD. His major projects concern innovation through competence learning and the strengthening of the skill-formation system in the Netherlands. E-mail: [wesch@cinop.nl](mailto:wesch@cinop.nl)

**Jos Frietman** is General Manager and Senior Researcher at the Knowledge Centre for Vocational Training and Labour Market in Nijmegen, the Netherlands.

**Jos Geerligs** holds an MSc in plant pathology and a PhD from the University of Twente. He was an Inspector for Vocational Education and a Senior Staff Officer for knowledge policy for another 12 years at the Ministry of Agriculture, Nature and Fishery. At present, he is a researcher and knowledge engineer for Stoas Education in Wageningen, the Netherlands. His focus is on studying the linkage of working and learning in complex systems e.g. education and policy development.

**Hans Heijke** is Director of the Research Centre for Education and the Labour Market (ROA) and Professor of Education and the Labour Market at the Faculty of Economics and Business Administration of Maastricht University. Postal address: Hans Heijke, ROA, P.O. Box 616, 6200 MD Maastricht. E-mail: h.heijke@roa.unimaas.nl

**Dick van Ingen** is an independent economics of education specialist. He has done research into economic aspects of education policy, and into the productivity and efficiency of institutions in providing education. At the time of the evaluation, he was employed at the Institute for Research on Public Expenditure.

**Peter Karstanje** is Director of the Netherlands School for Educational Management, University of Amsterdam, providing master's programmes in educational management.

**Ewart Keep** has a BA in modern history and politics (London University) and a PhD in industrial relations (Warwick University). Since 1985, he has been employed at the University of Warwick, firstly in the Industrial Relations Research Unit (IRRU), and, since 1998, as Deputy Director of the ESRC Centre on Skills, Knowledge and Organisational Performance (SKOPE). He has acted as an advisor to the UK and Scottish governments, and has published extensively on UK vocational education and training policy, work-based learning for the young, the links between skills and competitive strategy, and the learning society and learning organisation.

**Regina Mulder** is Vice-Director of RISBO (Rotterdam Institute of Social Policy Research, Erasmus University Rotterdam). Her research focus is on factors of success and failure of school careers in primary and secondary vocational education, dropout, the relation between education and the labour market, the design and evaluation of (didactical) innovations, evaluation of alternative school programmes for potential dropouts and the unemployed. Recently, she has been leading a project of the "Stichting Consortium PGO" concerning the development and implementation of new didactical models for VET for all community colleges.

**Loek Nieuwenhuis** is Senior Researcher at Stoas Research in Wageningen, the Netherlands. He is Coordinator of the Labour Market Research Programme for Agricultural Education. Before this, he worked at Groningen University and Erasmus University, Rotterdam on institutional and learning aspects in VET. At Groningen University, 1991, he finished his PhD study on complex learning situations in school and business and industry. Together with the University of Twente, he has recently been working on a new research programme "The Learning Potential of the Workplace", granted by NWO (Dutch Science Foundation).

**Wim Nijhof** is Professor of Education at the University of Twente and Chair of the Division of Curriculum Technology for School and Work. He was a member of the Steering Committee of the Evaluation of the Adult and Vocational Education Act. The focus of his research is skill formation, competence development, and workplace learning in an international perspective. E-mail: [w.j.nijhof@utwente.nl](mailto:w.j.nijhof@utwente.nl)

**Klari-Janne Polder** is a Researcher allied to the SCO-Kohnstamm Institute, Faculty of Social and Behavioural Sciences of the University of Amsterdam. The author was appointed Secretary to the Steering Committee for the Evaluation of the Adult and Vocational Education Act.

**Louise van de Venne** worked as a Researcher at the SCO-Kohnstamm Institute of the University of Amsterdam, with a special interest in educational governance, policy and school organisation. She is a member of the academic staff on the Education Council.

**Rolf van der Velden** is Head of the Education and Occupational Career Division at the Research Centre for Education and the Labour Market (ROA), Maastricht University. He is a Fellow of the Maastricht Research School of Economics of Technology and Organisations (METEOR) and a Fellow of the Interuniversity Centre for Educational Research (ICO). He is Chairman of the Network Transition in Youth and a member of several research associations in the field of social stratification, education and the labour market. His current research interests include international comparisons in the transition from school to work, competence development during education, and the long-term effects of education on careers.

**Maarten Wolbers** is a Senior Researcher at the Research Centre for Education and the Labour Market (ROA), Maastricht University. He is Project Manager of a large-scale annual Dutch survey among school-leavers from secondary education (RUBS). His main research interests include social stratification issues in general and school-to-work transitions in particular.



# Acknowledgements

When a government introduces a law, in which an evaluation of the functioning of that law is scheduled for an appointed date, one could speak of a unique event; it is, however, even more unique when the government is actually willing to act on the basis of this evaluation study. Politics is, however, not as rational as it seems.

This volume is a compilation of the main results of an evaluation study of the new Adult and Vocational Education Act, as introduced and implemented in the Netherlands in 1996. The study was carried out between June 1999 and June 2001.

A Steering Committee, responsible for the methodology and process, submitted its results to the Minister of Education – in a box containing nine reports with some 1100 pages of information – in June 2001.

Researchers and scientific members of the Steering Committee also presented and discussed their main conclusions at the annual conference of the Dutch Educational Research Association (VOR) and came to the conclusion that a presentation of methodology, process and results could be valuable for the international community and research institutes in the field of adult and vocational education. We have received many requests from abroad for the process and outcomes of the evaluation study.

Since the summer of 2001, the authors have worked on their chapters in their own individual styles and at different speeds, reducing their extensive reports to key information in readable chapters.

To understand the evolution and transformation of the system of Adult and Vocational Education in the Netherlands, the editors added three chapters (1, 2 & 15). The assessment of the innovation and the evaluation study was splendidly done in chapter 16 by Alan Brown and Ewart Keep, both from Warwick University, who have had so many profound experiences in the UK and in international VET systems. We greatly appreciate their expertise, enthusiasm and prompt work for this book.

Gay Howells as a native speaker used her fabulous linguistic and interactive talents to help us get a consistent volume, which is really not easy with so many researchers from different disciplines, even within the domain of Adult and Vocational Education. Gay has also put together a concise glossary for international readers to help them understand the Dutch VET system better.

Monique Kole and Evert van de Biezen did the layout, which is certainly not the easiest part. We are very grateful for having such excellent assistants.

A final word of gratitude is extended to the Expertise Center of CINOP for making this publication possible.

We hope that the international community of research into Adult and Vocational Education will profit from our experiences and will stimulate the discussion of VET through critical reflection.

Wim J. Nijhof and Wil van Esch (editors)  
Enschede/'s-Hertogenbosch, December 2003

# 1 Introduction

WIL VAN ESCH & WIM J. NIJHOF

## 1.1 Introduction

On 1 January 1996, the *WEB*, a new Adult and Vocational Education Act, came into force in the Netherlands. This Act brought together *MBO* (upper secondary vocational education) and adult education. Hundreds of vocational and adult education institutions merged to form 43 large community colleges, offering training and education in a very broad range of sectors. Moreover, a small number of special single-sector institutions remained.

One main objective of the Act was to provide a variety of study programmes at different levels, so that the individual needs of students could be better met. One of the measures to realise this aim was an improvement in the match between adult education and *MBO*. The second main objective was an improvement in the match between education and the labour market. One of the measures to realise this objective was the introduction of a national qualification structure for upper secondary education and – some years later – adult education.

The new Act prescribed that the Minister of Education reports to the Dutch Lower Chamber on the effectiveness and efficiency of the Act before 1 January 2002. A Steering Committee coordinated the scientific evaluation programme that was conducted by Dutch experts on VET and adult education between June 1999 and July 2001. The evaluation study resulted in eight research reports, on the basis of which the Steering Committee organised a hearing for stakeholders. At the end of the evaluation process, the Steering Committee formulated overall conclusions and recommendations, independently of the researchers and policy-makers. The publication of the report of the Steering Committee in June 2001 constituted the end of the scientific evaluation and the beginning of the political evaluation in parliament.

This volume is about the process and the results of the evaluation, and the proposed steps for improvement, as carried out by the researchers<sup>1</sup>. There are seven sections. After this section on the context, recent history and evaluation issues, we present two sections dealing with the responsiveness and flexibility of the VET system. Section 4 is about the quality of the teaching and learning processes. The monitoring of output of the system is the subject of section 5, while section 6 deals with the quality of self-regulated institutions. In the final section, a presentation of the results and a critical reflection on the evaluation itself will take place. We end this book with an epilogue, in which recent developments in Dutch VET policy are described.

<sup>1</sup> One specific study of legal issues has not been included. This study assumes very specific expertise in the domain of law-making, regarding vocational and adult education, and was very technical in nature.

## 1.2 Overview

In the next section, a brief indication of the content of the chapters, by way of an advance organiser, is presented to the reader, to give a better understanding of the whole project, which took about two years of intensive information and data collection, and discussions with stakeholders in the VET system, researchers and Steering Committee. The study is a policy evaluation and, at the same time, a formative analysis, which may help to give feedback to the Minister of Education and encourage all the main actors in the field to do better and improve the performance of the VET system. The study itself, which is comprehensive in nature, and carried out by different research groups and disciplines, was conducted between July 1999 and July 2001. The study is unique, in that it evaluated a whole system of adult and vocational education enforced by one act. Our main motive in presenting this volume is to share our knowledge and experiences with colleagues and interested policy-makers in Europe.

We believe that the European Union will be able to profit from this kind of study when setting up comparative studies in VET.

### **SECTION 1: THE CONTEXT AND THE QUESTIONS**

In *chapter 2*, Wim Nijhof presents a historical picture of the transformation of the VET and Adult education system since the beginning of the 1980s, when the signs of change and of mismatches between the labour market and VET system were becoming visible, when the knowledge economy seemed to be emerging, when new demands for high skills seemed to be imminent, and the consequences for the Dutch system were defined in terms of responsiveness and flexibility. A series of comprehensive interventions were sketched to shape the new model of VET and adult education in the Netherlands for the 21st century. Many of these interventions and regulations formed the basis for the new Adult and Vocational Education Act (*WEB*).

The content and the way in which the evaluation of the Act was set up and conducted is the subject of *chapter 3*. Klari-Janne Polder describes the central question and the procedure of the evaluation in order to attain the targets of the Act, as a result of the statutory instruments. In this chapter, the content and performance of the evaluation are presented. The content consists of the targets of the Act and the changes that were implemented to realise these targets. The main changes concerned the national qualification structure, the system of quality control, the funding model, the decentralised steering of adult education and the vocational practice training. The performance of the evaluation consisted of eight steps.

### **SECTION 2: RESPONSIVENESS OF THE SYSTEM**

The effectiveness of the qualification structure for senior vocational education and training is the subject of the contribution from Jittie Brandsma in *chapter 4*. The match or mismatch between vocational education and training and occupational practice has been a central issue in the debate around VET for more than thirty years. In the debate, it was concluded that the government and both sides of industry should get more involved and have more influence on both the content and design of VET. The 'royal road' consists of a developmental sequence of the construction of occupational profiles, training profiles and framework curricula. The central question in this contribution is whether expectations with regard to the national qualification structure for VET have been met, and whether the development and steering model underpinning it can explain the extent to which these



expectations have – or have not – been met. The results are related to experiences in England and Germany.

*Chapter 5* deals with the macro-efficiency of vocational education and training. According to Lex Borghans and Hans Heijke, vocational education courses should fill a social need, should provide school-leavers and graduates with favourable perspectives in the labour market, while their contents should both contribute to the students' general education and provide them with sustained and broad occupational qualifications. The procedural aspects of the Act therefore pay explicit attention to the principle of macro-efficiency. The chapter presents a theoretical framework for the concept of *macro-efficiency*. The core element of this framework is the idea that the main objective of the Act cannot be to strive for the fulfilment of all the demands made by employers. Their main conclusion is that current legislation contains too many incentives for setting up narrow, specialist courses, and that schools should be given much greater responsibility for their study programmes.

### **SECTION 3: FLEXIBILITY OF THE VET SYSTEM**

The authors of *chapter 6* – Elly de Bruijn, Cees Doets and Wil van Esch – examine the results of two evaluation studies with reference to the implementation of the Act. A central concept behind the Adult and Vocational Education Act is 'flexibility', which is explained in four categories; namely organisational flexibility, flexibility of educational pathways, flexibility in the curriculum and pedagogical flexibility. Responsiveness and transparency are defined as the two central dimensions of a flexible system of vocational education. The results of the studies demonstrate that such a system does not as yet exist. Flexibilisation of the educational process has gained little ground in educational practice. The Act itself also contains inconsistencies that put a brake on its realisation in educational practice. The chapter ends with some critical reflections regarding the flexibility of the educational process.

The focus in the previous chapter was on pathways, the educational approach to flexibility. *Chapter 7* by Jos Geerligts focuses on the measurement of efficiency, the business approach to internal flexibility. Dutch VET in schools for MBO should provide a minimal vocational qualification for everyone over 16 that enters the labour market. That is why the supply system comprises four levels and several pathways; this is to accommodate diverse target groups. The provision has the obligation to guide students through appropriate pathways and levels. Thus, when students qualify in a reasonable time, this is also a matter of efficiency through the flexibility of internal supply. The main conclusion is that the monitoring of efficiency needs to be improved. Whereas a cohort approach would be preferable, for the WEB evaluation it is mainly cross-sectional data that are available. Recent developments, such as the measurement of qualification gain and the future introduction of the student number, will facilitate cohort studies.

### **SECTION 4: QUALITY OF THE TEACHING AND LEARNING PROCESSES**

In *chapter 8*, Loek Nieuwenhuis, Regina Mulder and Henk van Berkel present the results of a study of the impact of legal measures on the quality of educational delivery in Dutch VET. Firstly, they discuss the main goal of modern VET being to motivate students for lifelong learning. Preparing students for a knowledge-based society should be done by motivating them for learning for employability during their working career. Secondly, they argue that a direct link between legal measures and educational practice is nonexistent. The link between law and practice in social systems has a three-step feature: the institutional structure and the organisational design form intermediate layers in social systems. Laws

deal with the outskirts of systems, whereas organisations have a direct impact on educational practice 'on the shop floor'. Thirdly, based on these two premises, they investigate the impact of educational legislation on institutional, organisational and practical levels.

The authors conclude there is still a great deal of quality to be realised in Dutch VET. At political and institutional levels, the main reaction is to establish more and more detailed prescriptions to improve VET delivery. They argue, however, that this regulatory reaction will turn out to be counterproductive, resulting in a retrograde move. In order to establish a forward movement, colleges should be supported in improving the professionalism of teachers and trainers in companies. Institutional behaviour should be changed from prescriptive to supportive to colleges for delivering flexible and attractive VET.

The changes in responsibility between actors regarding organising work-based learning are the subject of *chapter 9*, written by Jos Frietman. The central question is what each actor does and to what extent the quality of work places as learning places has been affected. The depiction and conclusions build on research into the quality of the organisation of work-based learning. Relevant information has been collected from lead bodies, community colleges and their counterparts in agriculture. Moreover, the quality of work-based learning is discussed and the perspectives of the various participants in this process are reviewed for each different educational sector. The conclusion is that the introduction of the WEB has left a vacuum in several places, because the expertise around work-based learning – counselling by the lead bodies – has disappeared. Although some branches created transitional arrangements, where the lead bodies were still directly involved in the counselling of trainees, an overall loss of expertise cannot be denied. The fact that some divisions of community colleges are giving top priority to external counselling and the relationship with placement companies is a positive development. Employees are specially trained and qualified to operate as work-based learning counsellors. There are an increasing number of initiatives aimed at improving the cooperation between community colleges and lead bodies at a regional level. It remains to be seen, however, if these developments will be able to increase the overall quality of work-based learning.

#### **SECTION 5: REGULATING THE OUTPUT OF THE VET SYSTEM**

Examination arrangements are the subject of *chapter 10*, written by Regina Mulder, Henk van Berkel and Loek Nieuwenhuis. The central question of this chapter is how a system of assessment and examinations can be arranged and carried out, which leads to internal and external consistency. In this part of the evaluation of the Act, the characteristics of the current system of examination in the Netherlands are described and explained. Furthermore, the performance of the different institutions will be highlighted, as well as the relation between performance and the conditions for an effective system of examination. Possibilities for improvement, also in relation to recent developments in the Dutch VET system, are outlined.

How the transition from secondary vocational education to subsequent destinations takes place for individual school-leavers is investigated by Rolf van der Velden & Maarten Wolbers in *chapter 11*. Particular emphasis is placed on changes in the external returns to education through the years. For most types of education, the first students from the new education programmes still have to leave school, making it impossible at the moment of evaluation to assess the impact of the introduction of the qualification structure on the external returns to secondary vocational education. One exception is the agricultural sector, where the new qualification structure was introduced in 1992. Considering the available data, they restrict themselves in this chapter to the first and second qualification

objectives. For the transfer to continuing education, this concerns the transfer to *HBO* (higher professional education) and dropouts. With respect to entry onto the labour market, this concerns aspects such as the chance of having a paid job, or a permanent job, the match between education and work, and wages. To the question of whether the study programmes prepare students adequately for subsequent destinations, students seem to be satisfied with the choices made at the time with respect to their programme in secondary vocational education.

#### **SECTION 6: THE QUALITY OF THE SELF-REGULATED INSTITUTIONS**

In *chapter 12*, Peter Karstanje and Louise van de Venne report on a study that was conducted into the capacity of adult and vocational education institutions to pursue their own policies as part of the evaluation of the *WEB*. In view of the fact that the Act has only been in force for some years, this study was rather premature. The institutions – which have often had to cope with the consequences of mergers at the same time as the introduction of the *WEB* – were overloaded. Consequently, it would not have been reasonable to cherish too high expectations of their capacity to pursue policy by that time. This chapter discusses a number of findings from the study. Firstly, it presents a profile of elements of the capacity to pursue policy in the early days after the introduction of the *WEB*. Then, it discusses more recent research. Finally, it offers a number of possible explanations for the fact that institutions still do not seem to be able to pursue their own policies as well as they might.

Dick van Ingen deals with the funding of VET and adult Education in *chapter 13*. At the time of this evaluation, the systems of funding for VET had only just become fully operational and those for adult education had not yet taken effect. Transitional systems were in operation, thus the focus of the evaluation of funding is mostly *ex ante*. This focus of the study imposes important limitations on judging the effectiveness of the education system under the new Act. The funding regulations based upon the Act, it should be added, contain a final clause that states that an evaluation of the system will take place in 2004. The analysis was conducted on the basis of information gathered by documentary research and interviews with managers of VET colleges.

First, there is a description of old and recently introduced funding systems that have replaced the old ones. Then, an analysis of the functionality of the new funding systems is presented. The analysis is directed at access and quality, efficient pathways and good governance requirements. Finally, questions and answers are given, along with the conclusions on the analysis and policy recommendations.

#### **SECTION 7: REFLECTIONS**

The results of the evaluation of the Act are presented by Klari-Janne Polder in *chapter 14*. The main conclusion of the Steering Committee is that actors in the VET system – and especially the educational institutions – are making use of their scope for self-steering in a less than optimal way. This is one of the central features of the new Act. The freedom for self-steering which the Dutch government aimed to give to the central actors in the system is sometimes restricted by regulations made by the actors themselves. The tasks and responsibilities of the different actors are also not always clear. This general conclusion is based on an analysis of the scientific evaluation by the Steering Committee. According to the Steering Committee, the solutions to the central shortcomings of the Act demand an amendment to the Act.

The results of the whole evaluation study can be used in different ways. The author states that the Steering Committee influenced the viewpoint of the Minister of Education in relation to a limited amount of major problems, namely supervision and adult education. The scientific evaluation thus did

not contribute to new statutory rules in the first place, but mainly to the Minister's intention to improve the execution of the Act in practice. The scientific evaluation mainly supported the argumentation, the consideration of viewpoints and the alternatives to action.

Wil van Esch presents some recent developments in Dutch VET policy in *chapter 15*. Evaluation studies do not stop policy-makers, quite the reverse. When introducing and implementing a new VET Act, new initiatives had already been taken. Some of these are at the stage of policy intentions, some have already been implemented, showing that educational policy-making is not always a rational procedure and evidence-based. For a good understanding of what happened after the evaluation study, these policies can help in understanding the dynamics of power, stakeholders and the reluctance of the primary key players to change to order.

Ewart Keep and Alan Brown, in the final *chapter 16*, reflect on the key focus of this volume, the attempt by a national government to undertake an interim evaluation of a major attempt at just such a reform of a national VET system. Such a broadly-based evaluative overview of a reform process and its outcomes is relatively rare in their view, and the systemic approach adopted is valuable because it provides pointers towards the often highly complex series of interactions that occur within VET systems between the different stakeholders, particular institutional configurations and patterns of participation, and the regulatory framework within which these interactions, adjustments, and exchanges of information take place. Most national VET systems in Europe have witnessed significant reform over the last decade. In some cases, such as Germany, the change has tended to be evolutionary in nature. At the other end of the continuum, the pace and scale of reforms in England might best be characterised as revolutionary. The Dutch case appears to fall roughly in the middle of this spectrum.

# Section 1

The Context  
and the Questions



## 2 The process of shaping a responsive VET system; a reconstruction<sup>2</sup>

WIM J. NIJHOF

*Since the beginning of the 1980s, vocational education and training has undergone a series of changes in both its organisational structure and its content. Changes have taken place at all levels of the education system – as much at the macro-level as at meso and micro-levels. The changes relate not only to regular full-time and part-time vocational education, the apprenticeship system, adult education and private institutions, but also especially to the relationship between vocational education and business and industry. There has been an unprecedented process of transformation, which has profoundly altered the complexion of vocational education, and considerably improved relations with business and industry by organising a series of interfaces to enhance communications between the two. The effectiveness, efficiency and quality of vocational education as a producer of qualifications have also been essentially improved through the application of modern educational ideas to training and responsiveness.*

*In the 1990s, a system change could be observed, based on an increase in the autonomy of institutions, expansion of scale, output control, lump sum financing and external quality control. From a traditional system oriented to disciplines, a transition was under way towards a system of learning pathways based on competencies. From a fixed learning route for all, a system with internal and external flexibility was being created.*

*This chapter outlines the changes and effects of the past twenty years and, in the final section, formulates a number of tasks for the future.*

### 2.1 Prelude

At the end of the 1970s, it became clear that developments in vocational education were out of step with those in business and industry. Friction was growing in the match between school and work, There was a decline in interest in vocational education among students, and increasing complaints about the quality of qualified school-leavers from vocational education. It was said that vocational education was not preparing students adequately for the labour market.

<sup>2</sup> This chapter is a translated, revised and updated version of a chapter published in 1997 under the title *Transformaties in het beroepsonderwijs* (Transformations in Vocational Education) in the *Onderwijskundig Lexicon* by Samsom Tjeenk Willink, Alphen aan den Rijn.

The economy was performing moderately to poorly, unemployment was relatively high, the output of vocational education was low, and mobility negligible.

In particular, the development of new technologies played a major role in the question of whether the content of occupations, the nature of work processes and the infrastructure and interfaces of organisations were changing and demanding new cognitions, skills and attitudes. These changes were occurring worldwide and questions were being asked about how employees should be trained for the future: should their training be broad or specific, flexible, aimed at higher cognitive skills or, conversely, not (Berryman & Bailey, 1992; Heidegger et al., 1991; Hull & Prescott, 1984; Levin, 1984). In order to channel this dissatisfaction, analyse its validity and come up with possible solutions for creating a better match between education and the labour market, a commission was set up, under the chairmanship of G. Wagner, then the CEO of Shell. This commission would start the ball rolling for the creation of a number of commissions that were intended to smooth the way to a new elan, new working methods and new forms of structuring vocational education in the Netherlands.

### **THE WAGNER OPEN DISCUSSION**

The Commission produced a report in 1984 ('On the way to shared responsibility'), in which this commitment by both sides of industry and government was unequivocally formulated, and which made a series of recommendations allowing this responsibility to become operational, for instance, through the establishment of sector-specific negotiating bodies between education and business and industry. Furthermore, in particular, it was proposed that each individual should, as a minimum, be able to acquire a vocational qualification and that vocational qualifications should be brought more into line with what was required in occupations and functions (*Ministerie van Onderwijs en Wetenschappen*, 1985). The control of this was initially placed firmly in the hands of these negotiating bodies, which acted as a sort of platform. Later these bodies were to merge with the LOBs – national bodies for vocational education<sup>3</sup>.

The development of occupational profiles, the formulation of attainment targets and the grafting of training profiles onto these were flourishing. Each negotiating body undertook initiatives, followed its own procedures and working methods and thus developed one or more profiles or group profiles and attainment targets derived from them, but there was no harmonisation, standardisation or coordination of any kind between them. Some authors characterised this working method as naive: occupational information was converted in a fairly linear manner into learning contents for vocational education, while it remained to be seen whether this would result in a better match (Brandsma, 1993; Van Hoof & Dronkers, 1980; Nijhof, 1986). These views and experiences led to further methodological reflections and studies about the way in which occupational profiles were determined and could be transformed into qualification and training profiles (Brandsma, 1993; Moerkamp & Onstenk, 1991; Nieuwenhuis, 1993; Nijhof & Mulder, 1986; Streumer, Thijsen & Nijhof, 1991) which fitted into a qualification format (*Ministerie van O&W*, 1993). An attempt was made to prescribe a standard methodology in order to establish occupational profiles and educational profiles, analogous with a working method that had been developed earlier in England and Scotland, albeit without success, even though we can see that at the time a standard mix of methods was being used (Nieuwenhuis, 1993).

<sup>3</sup> These LOB's changed their name in 2001 into KBB, Kenniscentra Beroepsonderwijs Bedrijfsleven (Expert centers for Vocational Education and Training in Business and Industry). We will use the term Lead Bodies throughout this volume to indicate these organizations.



Experiences in Scotland and England relating to the drawing up of national qualifications incidentally served as an important model for Dutch policy-makers and practitioners, whereas Germany had worked for many years with fixed accreditation procedures to acknowledge occupational images (or profiles) as the foundation for structuring study programmes – these experiences had also been incorporated to a lesser degree (Nijhof & Streumer, 1994a). Due to the lack of a vocational education system and to the major problems that British business and industry was experiencing, a massive attempt was launched to set up a different system, following a top-down strategy. ‘... the combination of a comprehensive structure based on outcomes [competencies, WN], and insistence on relevance to the workplace, was seen by some as a revolution’ (Twining, 1993, p.29).

This step was important in the sense that business and industry and vocational education entered into discussions with each other and discovered that the perceptions that each held of the other often did not correspond with reality. Often it was researchers who established that it was frequently not at all clear – either in business and industry or in schools – what exactly the problem was concerning match, and to what it could be attributed. They did this by means of studies, such as the analysis of pioneering companies, the analysis of the number of qualified school-leavers and the full recognition of diplomas on the labour market, analyses of mobility patterns, task analyses at the workplace, analysis of career patterns, national surveys of companies and schools, documentary analyses and the like.

In this sense, the analyses helped to improve diagnosis of the problem and to lower the threshold between the two systems. In this way, a climate was created in which fewer prejudices and more valid observations, more critical judgements and consensus forming came to play a central role. The second generation of attainment targets was developed but was, remarkably enough, not implemented, or was not implemented in accordance with the statutory provisions.

Parenthetically, as long ago as 1988, the Ministry of Agriculture had already started its own procedure for drawing up a qualification structure and based its work to a great extent on an assumed consensus between business and industry, government and education and on the formulation of attainment targets within qualifications and partial qualifications by teachers, based partly on an education theory of Van de Lagemaat (1986) (*Overzicht van Diploma's en Certificaten, 1990*). The Ministry of Agriculture had oriented itself to the Scottish, French and German systems of vocational education and the attempts undertaken there to create a new qualification structure or to reform an existing one from the inside out (Geerligs, 1999; Hövels et al, 1995), however, regarded this approach as not effective in all respects, due to the lack of real communication with business and industry, the top-down approach from the Ministry, the way it capitalised on teachers in order to implement the reforms and its rapid tempo.

The Wagner Commission had, however, provoked discussions, promoted co-makingship, designated instruments for educational reform and created a climate for change.

#### **THE TEMPORARY ADVISORY BODY EDUCATION-LABOUR MARKET**

The Tijdelijke Adviescommissie Onderwijs Arbeidsmarkt (1990) (Temporary Advisory Body Education-Labour Market, also the Rauwenhoff Commission) was established in 1989 and came up with some *unorthodox* proposals for improving the match between education and the labour market. The Commission took as its basic principle the premise that no single actor as such could solve this problem. It steered a course therefore towards intensive cooperation between schools, business and industry and government. Its second basic principle was that lifelong learning and employability were the crucial skills with which people should be equipped in order to be able to adapt to new

developments. This is why the Commission saw the function of education as wide: general preparation for entering society, cultural orientation and vocational qualification. The acquisition of a basic qualification for all was regarded as an important condition, as was the structural acquisition of vocational education and practical training through a compulsory form of dualisation. Finally, the Commission wanted relative autonomy for institutions (the independent school – actually, the school as independent company). A proposal regarding dualisation for all forms of initial vocational education, whether apprenticeship, *MBO* (Upper Secondary Vocational Education), *HBO* (Higher Professional Education) or the first phase of university education, provoked mixed reactions, and would eventually, in practice, remain limited to the apprenticeship system (in the work-based variant) and placement-like situations in the school-based variant (*MBO*, *HBO*. and university education). This conclusion was also drawn by the Dualisation Commission.

The Rauwenhoff Commission summarised its ideas in a programme of action with eight themes, each of which, to varying degrees, would filter through into policy and legislation, or into operational programmes. These themes were:

- a trials of so-called free-market projects;
- b towards an independent school;
- c companies as co-makers to give shape to the principle of co-makership;
- d dualisation, a route to achieve a legal basis for dualisation in commercial training, higher and university education, adult general secondary education and upper secondary vocational education;
- e a minimum basic qualification for all;
- f quality assurance (internal and external);
- g the professionalising of teachers;
- h legislation aimed at the integration of the *WCBO*\* (Commercial Training Act) and the *SVM*\*\* Act and aimed at the integration of *MBO*, *LLW* (the dual system) and *vocation-oriented adult education*<sup>4</sup>.

It would soon become apparent that the proposals of this Commission implied major changes and had meanwhile had a great influence on the next stage of vocational education. This applied particularly to topics b, d, e, f and h, not only as regards legislation and restructuring, but also in terms of a reassessment and repositioning of the importance of vocational education to the economic significance of the Netherlands. The development of the *WEB* (Adult and Vocational Education Act) – which, moreover, goes further than the Commission proposed, as it includes not only *LLW* and *MBO* (short and long, full-time and part-time) but also all forms of subsidised adult education – appears to have had the greatest impact.

### THE DUALISATION COMMISSION

One of the most radical proposals of the Rauwenhoff Commission was to dualise all initial vocational education (from primary through all forms of study programmes at tertiary level) and to formulate a legal foundation for this. This proposal was, as already mentioned, regarded as controversial. A new commission was established, whose terms of reference were to study how and with what added value dualisation would be possible. Dualisation was proposed by both the Wagner and the Rauwenhoff

4 \*Before the introduction of the Adult and Vocational Education Act, the community colleges provided the commercial training programmes, which gave them the opportunity to improve cooperation with the labour market.

\*\*This relates to government innovation focusing on re-engineering *MBOs* into sectors, managerial innovation and modularisation.

Commissions as one of the most important solutions to the problem of match between education and the labour market. The Dualisation Commission, under the chairmanship of Van Veen, however, reached a different conclusion, based on a number of facts and considerations. In the meantime, it turned out that, as a result both of the measures taken and of economic developments, participation in secondary vocational education had doubled in the ten years from 1984 to 1993; the distribution of qualified school-leavers and graduates across different social sectors reasonably reflected the needs of the labour market. There were quantitative problems at the bottom of vocational education (students without diplomas) and in parts of higher education (surpluses for parts of the public sector). The Commission considered the qualitative match to have improved considerably, as a result of the newly deployed instruments, such as occupational profiles, the establishment of attainment targets by the lead bodies, and review and exploratory committees.

The Commission recorded that vocational training could occur along many routes. It did not consider it desirable to deploy only one channel (dualisation) as the way to the labour market, as was the case, for example, in Germany. It therefore proposed broad institutions into which *MBO* and commercial training were incorporated, apprenticeship systems and *KMBO* (short full-time *MBO*) variants were to continue to provide for the existing need; full-time and part-time *MBO* study programmes were brought under one institutional system and work placements were expressly subjected to the requirements of vocational training (approx. 20 per cent of nominal study time) with an extracurricular character by definition and through direct supervision by the labour organisation in which application-oriented skills, practical occupational skills, moral values, and reflective skills would be acquired (*Commissie Dualisering*, 1993, p.8-9).

#### **THE BIESHEUVEL COMMISSION**

In all the discussions about vocational education and about improving the match between it and the labour market, another commission was functioning, which was given the task of working out the specific position of agricultural education and the responsibility of the Ministry of Agriculture in this matter. The Rauwenhoff Commission, after all, hinted at a complete integration of study programmes within one legal framework and placing all the authority in the hands of the Ministry of Education.

The Biesheuvel Commission (1992) concluded that agricultural education was an integral part of the agricultural knowledge system and must therefore be placed with the Ministry of Agriculture and remain there. One important argument was that the Agriculture Minister was responsible for secondary vocational education because of the implementation of his policy relating to rural education.

## **2.2 Responsiveness and flexibility as ‘Leitmotiv’**

The use of commissions – a tried and tested instrument in education policy – proved to bear fruit here too. CEOs, in cooperation with experts and controversial thinkers, transformed the system of vocational education into a modern, responsive institution of VET, respecting the public interest of macro-efficiency, the needs of business and industry, and the core responsibility of community colleges to organise powerful learning environments. This was a system that would anticipate developments, be proactive, both from inside out and in consultation with its external environment. A system was created within ten years that had to be considered able to achieve the desired responsiveness, in relation to:

- a the conversion of exogenous changes into internal educational developments, both organisationally and as regards the content of education;
- b the keeping up-to-date of data files relating to occupational profiles, labour market data, number of qualified school-leavers, the full recognition of diplomas on the labour market and vocational advice;
- c the integration of and variation in learning pathways (short and long, full-time and part-time), school-based and work-based, thus guaranteeing internal flexibility;
- d the promotion of the independence of institutions;
- e the promotion of a change in culture: from subject-oriented to competency-oriented education;
- f the promotion of a support structure and infrastructure, enabling secondary vocational education to acquire customised external professional help;
- g a system of institutions to help implement the transformation of occupational profiles into education:
  - research institutes that carry out field and labour market research to record exogenous developments;
  - lead bodies (n=21<sup>5</sup>), which on that basis establish occupational and qualification profiles and develop attainment targets;
  - institutions (community colleges) that develop independent learning pathways or have these developed experimentally, with the aid of knowledge centres such as *CINOP* (Centre for the Innovation of Education and Training), *SLO* (Institute for Curriculum Development) and universities, and carry them out;
  - an Adult and Vocational Educational Board that advises the Minister with regard to problems about adult and vocational education;
  - *ACOA* (Advisory Body Education-Labour Market) which assesses the efficiency of training courses;
  - *CREBO* (Central Register of Vocational Qualifications);
  - institutions that develop and administer (or help to do so) tests and examinations that are geared to the attainment targets;
  - institutions that certificate internal and external quality assurance systems;
  - review committees that provide external validation of the relevance and quality of study programmes and learning pathways;
  - institutions that monitor the mobility, flexibility and transfer capability of qualified school-leavers and graduates and relate this back to the policy of institutions and government organisations, such as *ROA* (Research Centre for Education and the Labour Market) and *STOAS* Research for the Agriculture domain.

We can observe that a transformation has taken place that has had legal, educational and organisational consequences. These are as yet limited to secondary vocational education. One development that is occurring differently in Australia, for example is that attempts are being made to have higher education become an integral part of the qualification structure.

<sup>5</sup> Since the beginning of the 1980s the number of lead bodies went down from 31 to about 21 in the 1990s. As a consequence of labour market changes and policy interventions, also based on the evaluation of *WEB* (Act) a further reduction is visible based on mergers between lead bodies and reengineering of their tasks.

The implementation of a qualification structure and system, however, involves more than just the allocation of functions and tasks to institutes and actors. It is a learning process, in which everyone must learn to play their role, and to properly exercise their authority and skills. Some form of harmonisation and standardisation is necessary here.

In the next sections, we first follow a number of other instruments that could be regarded as provisional interventions, before a comprehensive Adult and Vocational Education Act began to take shape. In addition, comments are made on a system in the making.

### 2.3 **Interlude: short-term interventions and intermediations**

Since the Wagner Commission's open discussion, a series of activities have been developed that were intended to increase the responsiveness and effectiveness of vocational education. One important and wide-ranging operation was to be the *SVM* operation, which can be regarded as the forerunner of the *Bve* (Adult and Vocational Education) operation (the process of developing community colleges). The *SVM* operation also set out guidelines which were to help shape the Adult and Vocational Education Act. At the same time, similar procedures were being undertaken in other sectors of education, such as expansion of scale, substantive and administrative reform, increased efficiency and improved output, programmed reform, output financing, as well as promotion of the influence of information and communication technology (ICT) in education. The Information Science Incentives Plan (*INSP*, 1984-1988) and programmes of action following this, such as *PRINT*, *PROCO*, *OPSTAP* and *NABONT* were all intended to enhance the influence of ICT in education and vocational education.

Operations to achieve expansions of scale were introduced in infant and elementary education (converted into primary education), in secondary education (in order to make broad basic education possible for all students) and in higher professional education (the concentration of schools of higher professional education into *hogescholen*, the so-called Cooperation, Specialisation and Concentration operation).

#### **THE SVM OPERATION**

The process of sector formation and reform was officially started after the adoption of the Worrell & Nuis Motion on 23 June, 1987. The amalgamation of short and long study programmes and the start-up of reform (both administrative and substantive) were necessary in order to take up the challenges of the 1990s, as process management argued (*SVM-procescoördinatie* no. 26, 27 juni, 1989). Sector forming, administrative reform, modularisation and quality assurance, the conversion of occupational profiles into attainment targets and certificates covering parts of a diploma or qualification. A radical set of instruments was employed to ensure that vocational education was geared to the demands of the 1990s, demands expressed by the Wagner Commission and various European commissions (including *IRDAC*, 1989) (International Research and Development Advisory Committee of the EU) and which have been dealt with above. Single-category, full-time *MBO* schools were forced to merge at regional level by having to achieve a standard minimum size of 600 students, educational sectors were formed to create powerful, broad study programmes, modularisation was proposed to build flexible learning pathways, short and long, broad and narrow, horizontal and vertical. The old formal lecturing type of education provided too few opportunities for this. Modern forms of management could make controlling the system more effective. Quality assurance and control could be better organised by giving schools themselves more responsibility. This reflects the ideas of the Wagner Commission and

their effect. To provide a legal basis for all the changes, the *SVM* Act, after much controversy and postponement, finally came into operation on 1 September, 1991.

Spending cuts also played a role and forced institutions to further discussions. The operation was certainly not without its difficulties and pressures. The economy was not flourishing and schools too had to share the burden. By way of compensation, a Contract Activities Act was passed. This Act allowed schools of secondary education to carry out contract activities for third parties (training, services) on a break-even basis, and thus to behave as a competitor to commercial training institutions. It was also intended to strengthen economic relations between education and business and industry by enabling the knowledge of educational institutions to benefit companies, and vice versa. This interface was able to ensure that good relations between schools and companies grew, which had an impact on the curricula of schools, allowing qualifications to be better geared to regional needs. As a result, part of the culture of schools changed: they now had to respond to market demand, find niches, function cost-effectively, carry out marketing and acquisitions, and submit quotations. New skills would be called for and new forms of personnel and financial administration and management were required.

Actual processes of reform in the framework of the *SVM* operation had incidentally been taking place since the middle of 1986 and were harmonised by the *SVM* process coordination, which then took charge and took the initiative in keeping the Minister and Secretary of State for Education, the Dutch Lower House, and all the other players in the field keenly involved and in informing, monitoring and supporting them.

During the *SVM* operation, signs of harmonisation processes relating to adult education could already be observed. After all, questions relating to obtaining vocational qualifications applied just as much to commercial training, including that part of adult education. At the same time, it became clear that incorporating all vocational training activities into one Act would be an important resolution, also as regards the efficient spending of public funds.

As of 1 August 1992, the *KVE* (Qualification Structure for Adult Education) became effective for day/evening education, for primary education, non-formal, part-time education for young people, development work and commercial training. It was a sort of blanket act that would be further developed into the *VAVO* (Adult General Secondary Education) bill and the *WCBO* (Commercial Training) bill (*Ministerie van O&W*, 1988).

This legislation was geared to achieving greater provisions and more autonomy for the relevant institutions. The *KVE* and *SVM* Acts and the *VAVO* and *WCBO* bills expired on 1 January 1996.

The *Bve* process coordination that now took over the tasks from the *SVM* process coordination to help develop new study programmes for adult and vocational education thus observed: "From that moment on, new legislation was required for the whole field of adult education and vocational education and training. In view of present developments, the ongoing integration of adult education and vocational education and training can be expected." (*Bve*, 1992, no. 06, p.5).

From then on, it became clear that a new single act for the whole field of secondary vocational education and adult education would be brought in, even though the *SVM* Act had barely been implemented.

On 29 March 1993 a memorandum on the key issues of the Adult and Vocational Education Act was ready.

Although the *SVM* operation proved to have been a crucial but short-lived intervention – a step towards the formation of the community college – the operation was not completed and not all

interventions were converted into real educational practice. In essence, all the instruments were present to draw up the *WEB*.

## 2.4 **Effect: from memorandum on the key issues to the Adult and Vocational Education Act**

### 2.4.1 Basic aims

The goal of the new Adult and Vocational Education Act (*WEB*) was to bring cohesion to the entire field of secondary vocational education and adult education. This related to:

- one cohesive system of flexible, effective and efficient learning pathways;
- in which each new student was to be offered an appropriate learning pathway;
- in which dropping out was to be avoided as far as possible;
- and business and industry were to have an influence on the level and nature of qualifications for professional skills;
- broad and socially-oriented qualifications were anticipated (to avoid school-leavers becoming trapped);
- a new regime was anticipated, in which the new policy processes could be implemented (*Ministerie van Onderwijs en Wetenschappen*, 29 March, 1993).

The Minister of Education made reference to a number of radical instruments, which would in part dovetail with the policy deployed, for instance, through the *SVM Act*, but, at the same time, new instruments were also announced that would have consequences for innovations that were still in progress. In fact, the formation of community colleges, the establishment of a system of external quality control and internal quality assurance, the development of both an output-oriented funding system and a single integrated qualification structure would lead to a new regulation model that managed and monitored at a distance. The *Kernpuntennotitie over de Wet Educatie en Beroepsonderwijs 1996 (1993)* (Memorandum on the key issues of the Adult and Vocational Education Act) also made it clear that the legislation in force at that moment had barely been implemented, while a radical and wide-ranging new proposal was being advanced.

For schools, teachers and students, this was the start of a period of instability and uncertainty – comparable with similar changes in the United Kingdom (Twining, 1993) and Australia (Dercksen, 1993; Nijhof & Streumer, 1994a). The call for calm, stability and an overview of the situation would continue to be repeated – also without success.

The government was seeking integral instruments of policy-making and macro-efficiency, the education field wanted to flesh out the quality of its primary processes as well as possible and needed certainty concerning targets groups, working methods and funding, while business and industry required transparent qualifications, professional skills and responsiveness from the system.

Responsiveness in this connection is a characteristic of the system. The vocational education system is required to react swiftly to exogenous and endogenous changes and to translate or transform these into learning pathways and learning processes that help increase flexibility, transferability and employability. This demand for responsiveness was at the basis of the reforms that were occurring worldwide in education and vocational education systems (Hövels, Nieuwenhuis, Kraayvanger, Le Rutte, 1995; Nijhof, 1997; Nijhof & Streumer, 1994b, 1997; Resnick & Wirt, 1996); in the 1990s it formed the

motive for modernising and transforming vocational education (*Ministerie van O&W, 1993; Reuling & Koch, 1993*). The initiatives for this came largely from business and industry, as a result of economic, technological, demographic and organisational trends.

The design of a new qualification structure had to take into account as far as possible this proactive capacity (*Nieuwenhuis, 1993*). The aim of the new system was to guarantee accessibility for all and make possible a basic qualification for all (see contribution from Hövels). As a result, the qualification structure had to serve several purposes: preparatory vocational (*VMBO*) and qualifying (*MBO*), which meant that the ultimate goal of the government-funded qualifying system was a qualification. The structure was also intended to enable a specific target groups policy to be pursued.

Qualification here means a recognised set of knowledge, skills and/or attitudes that enable a student to take part in socio-cultural relations, to learn to learn, to acquire and retain a job and to experience further personal growth through ongoing training or development.

A vocational qualification is a cohesive set of skills and key skills (cognitive, interactive, psychomotor and communicative) recognised by the government, which must make possible the start or practice of an occupation and form the basis for career development and continuing employability within an occupational or related cluster.

By qualification structure we mean the architecture of learning pathways in terms of size, duration, basic aims, cohesion, entry selection and certification or examination. The duration is expressed in terms of study load. The aims relate to the regulatory principles of the learning pathway (a) form, b) level of complexity, c) transfer, d) degree of autonomy of the learner, e) relation between learning to work and learning while working (placements, project education, dualisation, experience learning) (*Eraut, 1994*).

Cohesion relates to the unity and conditionality between parts of the learning pathway. Entry selection relates to the conditions under which students can take part in qualifications and partial qualifications.

Certification is really self-explanatory: here it involves the completion of an attainment target or set of attainment targets that produce a qualification or partial qualification. This may also be an assessment of prior learning and the evaluation of this, in the form of diplomas (accreditation) (*Assessment and Accreditation of Prior learning, APL*), as developed in England and widely acclaimed in the Netherlands (through the recognition of informally acquired qualifications), so as to provide a basic qualification to people who have disturbing and complex experiences and competencies, without forcing them to follow formal, school-based learning pathways (*Commissie EVK, 1994*) (*Committee for the Recognition of Acquired Competencies*).

The recognition of competencies and accrediting them is, however, no easy task (*Frederiksen & Collins, 1996; Vickers, 1996; Wolf, 1998*) and this is experiencing great interest, even in the United States, where new skills are being introduced for the total education system, to achieve a more closely-knit relationship between academic education and preparation for work (*Tucker, 1996*).



The *WEB* aims to facilitate the integration of adult education and vocational education both institutionally and via learning pathways through the formation of community colleges. Primary education, *VAVO* (adult general secondary education), non-formal education for young people and preparatory/vocational education (*VMBO*) are financed by local authorities, whereas the qualifying education (*MBO*) is funded by the State. This also means that the responsibility for managing adult education lies with local authorities, especially a specific target groups policy, including quality control by means of quality assurance systems.

### 2.4.2 Quality control in the Adult and Vocational Education Act

Based on the principle of increased relative autonomy for institutions, these institutions are given the authority and the responsibility for ensuring quality control by means of at least three instruments:

- a periodic self-evaluations (internally, in respect of the quality of the primary process, and externally, through a regular assessment carried out by external independent experts, which is also made public and plays a role in the subsidy relationship between government and institution);
- b attainment targets serve as a source of testing: does a study programme comply with the demands made and does it produce students who meet the required attainment targets? Attainment targets thus compel institutions far more explicitly to improve audits of the qualitative output;
- c other quality control instruments for the introduction of, for example new study programmes, where testing in advance is desirable (partly as a form of external legitimisation).

Hoeben (1997) has examined the issue of quality assurance at length. The above makes it clear that this instrument is a source of testing for soundness for the government, on the basis of which they can force institutions to carry out consultations and adjustments. Institutions can, in turn, have their quality assurance systems certificated; this can be of major significance when they offer contract activities to the market. Certification thus ensures an external assessment, valuation and hallmark of quality that has to be updated periodically.

### 2.4.3 Attainment targets

One important instrument for drawing up study programmes or learning pathways is the use of attainment targets. One may ask what exactly attainment targets are and whether specifications for them exist. This question applies equally to terms such as objectives, qualifications and partial qualifications, qualification structure and qualification system. We go into this issue more thoroughly, since attainment targets have become a crucial management tool for the vocational education system. By the attainment targets of a training course is meant: everything that students must have learned by the end of their study programme. This involves the desired learning effects to be tested, formulated as the ability required for that end (certification). Attainment targets are thus binding educational and learning objectives – binding both as regards the design of the curriculum and the examination.’ (De

Groot, 1986, 112)<sup>6</sup> In order to determine attainment targets, both the concept and the contents of a study programme are decisive.

According to De Groot, a study programme is characterised by four points:

- 1 substantial scope;
- 2 cohesion in its range of subjects;
- 3 clear goal-orientedness;
- 4 a final 'examination' in one form or another (De Groot, 1986, p.109).

Such a study programme offers a surplus value (a quality, a qualification), is recognisable (has a clear name) and can be externally demonstrated with the aid of a certificate. As part of a national education system, De Groot argues, it must be a package of more or less cohesive learning achievements and, as a whole, be meaningful to the student and to society. The diploma must thus have social value.

What these cohesive learning achievements are exactly thus greatly depends on views about occupation, qualifications and key qualifications, career development and relations with exogenous developments (Achtenhagen, 1994; Geurts, 1989; Hövels et al., 1995; Nijhof & Streumer, 1997; Van Zolingen, 1995) and the significance of competencies and their impact on the labour market.

Attainment targets form the educational expression, interpretation or transformation of occupational profiles. They are the carriers or vehicles with which the actors (teachers, students, test-makers) within the education system must communicate, organise learning processes and test competencies. Various models have been developed and refined in the past few years to portray this process of transformation (Brandsma, Nijhof & Kamphorst, 1990; Moerkamp & Onstenk, 1991). It involves, after all, a conversion of occupational profiles into attainment targets and instruction processes. A similar transformation – De Groot (1986, p.114) speaks here of a coverage problem – relates to reliably converting desired competencies into desired learning effects and these, in turn, into learning tasks. There is no one-to-one correspondence between them, according to De Groot. It involves reasoning, justification and tenability, not scientific consistency.

In Figure 2.1, the transformation process is ideal-typically depicted in a model that can be regarded as generally accepted.

The actual application of this can in no way be called simple. Hövels et al. (1995) point, for example, to the question of whether the two sides of industry are succeeding in doing justice to the core of occupational practice in the industrial sector, which is often heterogeneous; namely: the conversion of occupational profiles in terms of attainment targets (aspects of knowledge, skills and attitudes) into different levels of complexity, which are assumed in the qualification structure.

<sup>6</sup> De Groot points to the fact that the term attainment targets was introduced rather suddenly in the middle of the 1970s in the discussions about the reprogramming of university education. He believes that one can work more easily with it than with the wider term objectives, which had led to ambiguous discussions in the 1960s and 1970s. De Groot means by his reference to Simon that attainment targets can avoid the interchangeability of goals and preconditions. The question is whether the current attainment targets comply with this requirement.

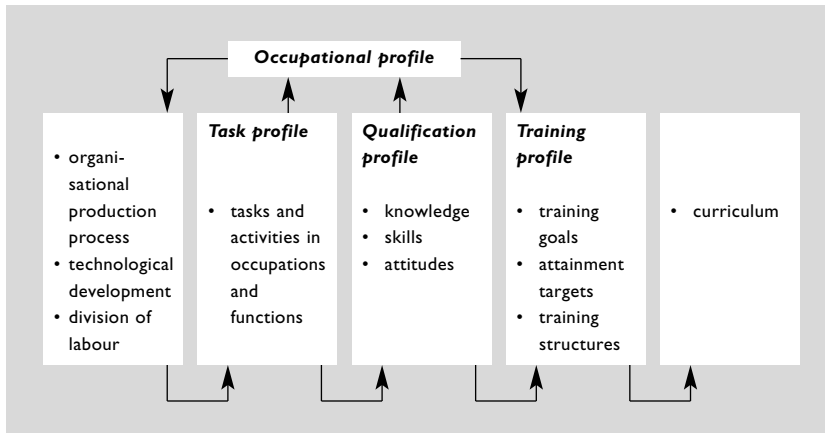


Figure 2.1: Profile development as process (Moerkamp & Onstenk, 1991, p.71)

Anyone looking at the experiences gained with attainment target procedures will observe that the first experiences were mainly learning processes for the sector-specific negotiating bodies, enabling them to learn to deal with these new types of issues and techniques and with the objective tendering of research procedures at institutes for contract research.

The evaluation of Frietman (1993) of the so-called second generation of attainment targets indicates that the negotiating bodies went about their work in their own headstrong way, that different accents were placed in each sector of industry and that more uniformity and standardisation of vocational education profiles and a central format were desirable. From an analysis of experiences and interviews, Hövels et al. (1995, p.26-27) concluded that in 1994 half the MBO institutions had not translated the attainment targets into curricula, while the second generation of attainment targets should legally have been in force as of 1 August 1993 for a large number of the study programmes. Where this had been done, however, the institutions turned out to have structured the attainment targets in a different, but legally permitted manner: in competency-oriented modules, in subjects, or a combination of these two – actually, thus, the classic variants of competency and subject teaching.

This third generation of attainment targets had to be ready by 1 August 1996 and be introduced by 1 August 1997 within MBO and commercial training.

The introduction of attainment targets thus proved not to be without problems. From an implementation study by Brandsma, Thuring-Van der Linden and Schuit-Van der Linden (1996), it appears that institutions accepted the attainment targets instrument. They felt that they were being given a certain amount of freedom to apply their own ideas and interpretation, although they were relatively neutral about the quality of the attainment targets in terms of unambiguity (Brandsma et al, 1996, p.26). The actual implementation did, however, throw up a large number of problem areas at most of the institutions interviewed:

- attainment targets were formulated either too vaguely or in too much detail;
- the classification into certificates that cover parts of a diploma or qualification was not logical;
- too little expertise was available to implement the attainment targets;
- the introduction required too much time;

- the introduction of the second generation of attainment targets was not considered worthwhile, because the third generation would have to be introduced within a short time;
- there was a lack of adequate support;
- insufficient funding was available (Brandsma et al., 1996, p.44).

The question to be answered was: What was the current situation regarding the introduction of new attainment targets? The researchers were reasonably positive about this. Their definition of implementation was based on a combination of criteria:

- the time of introduction of the new attainment targets;
- the incorporation of attainment targets into the curriculum or a part of it;
- an examination syllabus (part) in which the new attainment targets were incorporated;
- the selection of new teaching materials to achieve the attainment targets;
- the existence of planning for the introduction of attainment targets;
- the allocation of extra funds for their introduction;
- the involvement of external support agencies.

If one defines implementation, however, as actual or current use of an innovation (Fullan, 1991), one will find that the operational definition above mainly relies on planning resolutions and not on the actual operational behaviour of an institution or study programme in relation to attainment targets. Only the actual use of teaching materials, based on new attainment targets, and examinations in accordance with these new targets, would be a true concrete test. In that sense, the institutions and study programmes were not complying with requirements.

The researchers also observed that the process of introduction was progressing slowly. According to their definition, the economics study programmes were the furthest advanced. In addition to a national survey, six case studies were also conducted to gain further insight into the effect of attainment target documents on the curriculum, the examination syllabus and the teaching materials. It was concluded that this effect could not be established.

Incidentally, it was striking that the researchers, in assessing the attainment target documents, imposed a compulsory criterion whereby attainment targets had to be formulated in terms of observable behaviour, stating conditions and level. They did not, however, justify this choice of behaviourist (objectives) attainment targets (Mager (1975), 1960). Anyone taking a more cognitivist or constructivist standpoint was thus reproached in advance. In recent literature, on the contrary, it is the application of higher cognitive reflexive skills within meaningful contexts that is advocated (Berryman & Bailey, 1992; Raizen, 1989; Mulder, 1996). At the very least, a number of other additional analyses should have been carried out. Now it looks as though attainment targets are carriers of occupational requirements (*competency*, job requirements) and not of potential skills that lead to transfer (*competence*, learning to learn). The use of taxonomies as a means of codification was also involved in order to give a place to attainment targets. The code seems to be meaningful in itself, whereas it is, of course, about the structuring and sequencing of attainment targets. Occupational activity can be discussed as total complexes, but it can also be reduced to its smallest constituent elements. It is now precisely this difference in perspectives on occupations, on occupational activity and on reflexive and reconstructive activity that plays a major role in the design of modern learning pathways and the choice of methodologies for occupational analysis (Engeström, 1994; Van Zolingen, 1997). Dercksen (1993, p.15) points out that for this reason competencies in Australia are broadly defined and may not be interpreted in a task-oriented or function-oriented way.

Finally, the lack of expertise and support at institutions and in study programmes and their reluctance to facilitate the qualification structure by means of attainment targets were striking.

The great and rapid changes and the high speed at which generations of attainment targets had to be introduced at too short intervals, and the combination of different – often parallel – innovations gave vocational education little or no possibility to pause for breath, or for effect or reflection. A certain restraining influence of the qualification structure was explicitly mentioned by Hövels et al. (1995, p.36) as a means of promoting stability, provided that:

- individual flexibility is implanted in students in the form of metacognitive qualifications with a high transfer potential;
- a highly responsive system of commercial training and on-the-job learning is maintained;
- and business and industry itself accepts its responsibility for post-initial learning.

This is not the place to examine in depth techniques for the development of occupational profiles and attainment targets (see Brandsma, 1993 for a thorough overview; see also Moerkamp & Onstenk, 1991).

Until the present day, attainment targets have seldom been the subject of analysis. Between 1988 and 1992, Geerligs, Van Hoof, De Jong and Nijhof (1996) analysed all the examinations and attainment targets in agricultural education to check if there had been any essential shifts in the nature of attainment targets. The question was whether responsiveness had occurred. The conclusion was that great qualitative differences could be demonstrated in favour of the *ODC (Ministerie van Landbouw, Natuur en Visserij, 1992)*, in the sense that activity competencies played a central role. Hövels et al., however, indicated problems when introducing these attainment targets and converting them into modules.

Another study (Nijhof & Kamphuis, 1995) checked if the attainment targets in the form of transfer goals had had an effect on courses, educational learning processes and tests. The result of the analysis was shocking: measured with the aid of two taxonomies (De Block, Bloom), the answer was negative. The formulation of attainment targets is one step, their conversion into educational learning processes and measurable qualifications is another. The development and the systematic and consistent application of instruments that can help promote this standardisation is therefore essential.

Despite all these problems, attainment targets form the most important input instrument for managing educational learning processes in secondary vocational education. It is clear, however, that improvements are necessary. Here is an obvious task for the *Bve Council*, for the lead bodies, and for university research groups to develop effective technology. Continuation and stabilisation of system characteristics is a requirement for this. One major aid for this purpose is the format or framework of the qualification structure.

#### 2.4.4 Study programmes, learning pathways and modules

The transition from the *SVM Act*, via the *Kernpuntennotitie* to the *Adult and Vocational Education Act*, for example, nicely illustrates a second very important characteristic in respect of the regulations relating to learning pathways. "Education is provided in the form of modules with a certain study load", states the *Kernpuntennotitie*, in respect of the proposed *Adult and Vocational Education Act (Ministerie van O&W, 1993, p.28)*. *Koninkrijk der Nederlanden, 501 Wet van 31 oktober 1995 (Act no. 501, of 31 October, 1995)* providing for adult and vocational education (*WEB*) states in Article 7.1.2, however, that

institutions provide education in the form of study programmes. A study programme is a cohesive whole of units of study; one or more units of study of a vocational study programme lead to a partial qualification. The government does not comment on whether educational units are modules.

It is striking that the *Kernpuntennotitie* makes education in the form of modules – or modular education – compulsory, whereas the term does not appear in the *WEB*.

Despite this, the impression exists that virtually all *MBO* study programmes have been modularised. And why is that, in fact? Is modular education more effective or better than other forms of education? Before we provide an answer to this question, we shall first examine a number of structural characteristics of the 'format' of the qualification structure.

The *WEB* identifies vocational study programmes and learning pathways. Some five vocational study programmes and two learning pathways, classified according to duration and the proportion of the practical work part. Vocational study programmes are arranged hierarchically, according to the complexity of problem-solving activity (see, for example, Nieuwenhuis, 1991; Mulder, 1996), according to transferability and the degree of independence or autonomy of occupational practice (see also Eraut, 1994). This is illustrated in Figure 2.2.

Vocational study programmes may be wholly or partially achieved. They then lead to a qualification, or a partial qualification. Mastery of a vocational qualification is set out in a diploma; a partial qualification in a certificate. Partial qualifications are gained by the mastery or achievement of a combination of attainment targets.

There are *three learning pathways*, depending on the proportion of the practical training (more or less than 60% of the time): the school-based learning pathway with placement (the classic *MBO* variant) and the work-based learning pathway (learning while working); (dualisation) (Onstenk, 1994) and a combination of both.

Level <sup>7</sup>	Vocational study programme	School-based	Work-based	Diploma's <sup>8</sup>
1	assistant training <sup>9</sup>	–	yes	53
2	basic vocational training	–	yes	199
3	vocational training	yes	–	204
4a	middle management study programme	yes	–	144
4b	specialists' study programme	–	yes	62
Total				693

Figure 2.2: Study programmes, preferred learning pathways and qualifications in 1997

7 The Netherlands is in line with the SEDOC classification. Level 5 is reserved for higher education and higher professional education.

8 Source: Ministerie OC&W, Stand van zaken implementatie *WEB*, 14 February, 1997.

9 This level denotes a limited basic qualification; basic vocational training is regarded as a full basic qualification (Ministerie OC&W, Kwalificatiestructuur secundair beroepsonderwijs. Criteria voor het format, 14 July, 1993).

10 Johannes Koch, former employee of *BIBB* and one of the spiritual fathers of the *Leittext* method, who became director of his own commercial firm in Berlin, drew this picture during a *CEDEFOP* conference at Amsterdam on 2 June 1997, about key qualifications.

It cannot, however, be ruled out that in the future learning pathways will (or may) acquire a virtual character, thanks to information and communication technology. Experiments in the framework of *Bve 2000* and the *Bve Net* point unmistakably to the possibilities of virtual learning, which puts a different complexion on the interpretation of the work-based and the school-based pathways. A master-journeyman relationship via internet or a computer coach, of course, has a different effect in the formation of vocational identity and competencies.

Furthermore, critical comment can likewise be made as regards the hierarchy of study programmes (see also Hövels et al., 1995). In particular, we record here that, as a result of changing ideas about labour organisations (including Senge, 1990), and of the increasing level of training of school-leavers, function hierarchies seem to be disappearing<sup>10</sup>. The concept of the 'learning organisation' (Senge) and of the 'knowledge-creating company' (Nonaka & Takeuchi, 1995), have led to fundamental changes being expected as regards the functional layers in labour organisations. Aspects such as complexity, transfer and autonomy in relation to key skills have led to a diversity of interchangeable functions, with consequences for study programmes and learning pathways.

The format for the qualification structure bears an extraordinarily close resemblance to the English one and may undergo changes, as a result of a re-analysis of work processes. It was expected, for example, that middle management functions would disappear (in larger companies), while interface management in organisations would remain (Rummler & Brache, 1990). This discussion also makes it clear how difficult it is to develop a stable format and, at the same time, build a responsive – or even proactive – system.

The objectives of the national qualification structure are:

- a the promotion of transparency;
- b the promotion of efficient and effective learning pathways;
- c the promotion of qualified school-leavers.

In order to promote this, a set of criteria were developed and collated in a format for the qualification structure, with the aim, of course, of helping to improve communication between actors and producing a transparent system of qualifications and partial qualifications for customers, institutions and students. On the basis of this, programme and organisational development can take place and learning pathways be designed. In brief, as a result, the architecture that was mentioned earlier in terms of basic aims, cohesion and the like can be achieved.

#### 2.4.5 Modular learning pathways

It has already been pointed out that in the *SVM* operation and in the *Kernpuntennotitie* in preparation for the *WEB*, modules were prescribed as the curriculum format for vocational education, while in the discussions about learning pathways – particularly with reference to English thinking – the independence of learning pathways from attainment targets was mentioned. This means that institutions may autonomously decide on the organisation of educational learning processes.

Incidentally, doubt can be cast on the assumption that attainment targets can be achieved independently of learning pathways. Attainment targets that cover skills and attitudes, for instance should be acquired through skills training courses, practical exercises and actual work situations. Smells and colours are important sources of perception in certain occupations: in physiotherapy, one literally has to use one's

hands to administer therapies. Attainment targets, one could argue, are thus not by definition independent of learning pathways, not even if they are so defined.

The question here is: Why did the government want to make modules compulsory? It is not easy to find an answer. The rationale behind modular systems can perhaps be reduced to individual study systems (ISS) and differentiation models from the 1960s and 1970s. Part of the answer may be found in the criticism of the existing system: not very responsive, inflexible, few possibilities for differentiation.

Modular systems should, in principle, be able to provide a solution to this issue. The United Kingdom too plays a major role as regards modules. It was Scotland especially that as long ago as the early 1980s developed a modular system (Clarke, 1994; Raffe, 1994). Raffe mentions the following arguments for modularisation:

- updating the curriculum would be simpler;
- the options for students and customers from business and industry would be increased;
- flexible entry and exit opportunities;
- more flexibility in teaching methods (instead of only formal lecturing);
- differentiation according to place and tempo;
- encouragement of changes according to method, work form and assessment. (Raffe, 1994, p.20).

Raffe mentions yet another argument to emphasise the independence of learning pathways: all the modules in the Scottish system can be followed in different sectors and at different locations. They are therefore completely interchangeable between institutions (a single hard currency of qualifications) and are thus a standard.

It is striking that there is scarcely any form of research or testing underpinning the introduction of modules, while the implementation studies in respect of individual study systems (ISS), of differentiation models in primary and secondary education, and blocks in university education display no obvious advantages over the existing systems. The introduction of Programme Units in Participatory Learning – forerunners of the current modular systems – also do not appear to be functioning optimally (Den Boer & Meesterberends-Harms, 1986; Nieuwenhuis, 1986). What is remarkable is the lack of experimental and systematic studies concerning modules. As a result of their wholesale introduction (with almost national cover), a comparative study has virtually been precluded. A programme evaluation of vocational education is thus of great importance for the years ahead<sup>11</sup>. Is the system working as intended? Is it really flexible? Is it possible to gain time vertically and horizontally in the system? Or is waste occurring? Are the costs greater than the benefits? Can the match with the labour market be considered successful? Are qualified school-leavers and graduates employable?

If the conditions have been fulfilled (validly laid down, representative, unambiguous attainment targets that have actually been introduced, geared to knowledge and skills, professionals who can handle the new systems, the availability of adequate educational materials, and a government that does not frustrate the implementation of such a system with yet another radical innovation), then the effects of the policy can be determined in a meaningful way. Now we have to rely on policy reconstruction, part studies (De Bruijn, 1997; Harms, 1995) and subjective observations (Hövels et al., 1995).

11 In the meantime PhD studies of Gordijn (1998) and Geerligs (1999) appeared on this issue.



What many people fear – that the fragmentation of the curriculum, where each module is taught separately and possibly each attainment target is dealt with separately – proved in Scotland to be excessive. Employers became confused with the large number of modules and certificates. Their recognisability on the labour market therefore decreased. Raffe wonders therefore whether qualifications are indeed the means par excellence of steering a vocational education system. From an educational viewpoint, however, he has no alternative.

In Germany, a debate has been raging for several years about whether or not to modularise German vocational education. Opponents feel they have been confirmed in their views by the Scottish experience. The likelihood of fragmentation is great, which would result in there being no integral occupational image for students, nor any integral vocational qualification. Modular systems require good management, cohesion and a clear view of the general situation. They should vary in size (time should vary according to the complexity of the attainment target to be mastered), be well sequenced according to conditional characteristics, be perfectly organised internally according to instruction characteristics and feedback, and varied according to instruction method: the learning pathway should be suitable for its goal. This is not the case.

Another important part of the learning pathway or the curriculum is the practical component.

In the format, the practical component is characterised by a variety of forms: placements, practical training places, through an allocation of time of at least 60%, working while learning and learning while working. The Dualisation Commission advised not to obsessively follow a single route here, but to go for several options. Van der Klink (1999) has examined this important topic in greater detail, both at school and in companies. His conclusion is that workplace learning is in many cases not very effective.

## **2.5 Towards a qualification system and structure as a condition for responsiveness**

Anyone wishing to organise different learning processes in order to create competencies different from the previous ones, and as a result to serve the macro-economic function of replacement, innovation and responsiveness, will seek means and preconditions to achieve this. In the past few years, it has emerged that the Dutch government has mainly relied on macrocontrol, expansion of scale, output financing and quality assurance. Although it often declared that responsibility lay with the professionals (the institutions and their staff), monitoring of this system relied on a number of institutions that fulfil different functions. The recent discussions about the role of knowledge in the economy and in companies makes it clear that educational institutions produce and distribute knowledge. They have always done this and they will continue to do so. But there is a desire to intensify these processes, to improve relations between institutions and customers (students, companies, institutions) and to break down barriers. The system was therefore designed based on ideas about internal and external flexibility, as well as ideas about the economic-regional meaning of training, about macro-efficiency and efficiency. It is not the lean and mean concept – which has led to decentralisation, slimming down and other forms of re-engineering by business and industry – that is the dominant model, but the system of central coordination and management. Institutions thus always have autonomy in a relative sense. If they want something new, others determine the validity of this. In that respect, Dutch community colleges are much less autonomous than those in the United States or England. The concept that we use as a

framework for the characterisation of this central management philosophy, as a flexibility strategy, is a concept of Nijhof & Streumer (1994b).

In the *context* of the system, there are companies, the labour market and institutions operating that should pick up signals and translate them into measures. These are the companies themselves and their own in-company training, the two sides of industry, the relevant Ministries of Education, Economic Affairs, Social Affairs and Agriculture, the lead bodies, the examination institutions, the educational council and other advisory institutions. In brief, all the institutions and organisations that at macro-level have to answer the validity question or coverage question: What must future occupational practitioners (and citizens) know and be able to do?

The *input* of the system is to a significant extent determined by the way in which decision-making takes place at macro-level. The study programmes on offer relate to a 'specified' demand for qualification, which is based on labour market expectations and occupational requirements and which must be formulated in attainment targets. Many mediating institutes can be of help here in the translation of attainment targets, but in view of the scale, community colleges can be expected to develop or to have already developed their own expertise centres to tackle this problem. The lead bodies too play an important role here. This is also a problem of coverage, as well as one of implementation: the requirements of the qualification structure, as formulated in the format, must be met, and in such a way that they are practicable. The use of modern ICT aids (Bastiaens, 1997) can be very helpful here.

The *process factor* relates to the professionalism of the institution and its staff; the effective structuring and organising of learning pathways. It looks as though this part especially will demand a great deal of attention in the coming years: this is the pivot of the qualification system. If quality is missing here, the same will be true of the qualifications. To modularise or not, school-based or work-based, the role of the teacher, the role of ICT – this is where the choices, learning processes and learning effects are visible. Research into the quality of the implementation and effects of learning pathways (internal flexibility) is vital here (Achtenhagen, Nijhof & Raffe, 1994).

The *output* or the result of the system is judged by its effects. This measure of effect is not simple, but will look more differentiated, because the system has several entry and exit points, several levels and variations in tempo and depth. The search for new performance indicators is in progress, especially in the light of the aims of the system: is the system flexible? Does it visibly and clearly qualify people with a basic qualification? Is the system efficient? (Van Batenburg & Den Boer, 1996; Lokman, Van Woerkom and De Bruin, 1996). In addition, the labour market effects should be established in terms of mobility and social output. In particular, questions such as the relation between learning pathway, remuneration and productivity, and the relation to the under-utilisation of qualifications are relevant problems in this connection.

## 2.6 Coda

In the above, we have made a sketch and a reconstruction of the operating and change processes within vocational education, which we have designated a transformation process. From a reactive – maybe even conservative – system of single-category schools and academic education, a system has emerged

that, as regards potential and infrastructure, is characterised by flexibility and responsiveness, with the aim of providing a contribution to the sustainable employability of people on the labour market through a broad multi-qualifying study programme. As a result, the system contributes to an economy that has become increasingly knowledge-intensive.

Within the scope of a contribution such as this, it is neither possible nor necessary to deal with all aspects. The analysis given here is based on an educational analysis which is sharply focused on those instruments that impact on learning pathways and learning processes. This does not, however, detract from the fact that other interesting perspectives too are certainly conceivable, such as those of economics, management science, business administration and the sociology of labour. It was also not our intention to give a quantitative overview of the current situation. Firstly, this can easily be obtained; secondly, it changes relatively rapidly<sup>12</sup>. The Dualisation Commission has recently shown that many problems dating from the beginning of the 1980s have either disappeared or have cancelled each other out.

By using the term transformation, we are expressing our view that the process of change and reform is not complete, and also that it is not a linear process, in which from the very beginning there are clear goals in mind and that the instruments merely serve to smooth the way. In many cases, those instruments also had to be developed and in many cases they still do not work effectively. The use and implementation of occupational profiles, attainment targets, quality assurance instruments, tests and educational study units, which are still crucial when it comes to the organisation of educational learning processes, leave much to be desired. But the chosen direction seems to be the right one. It is now a matter of optimising a system with potential. Let us therefore finally attempt to point out a few problems and problem complexes that are foreseen for the years ahead and to which answers will have to be found.

Education systems by definition aspire to a certain form of security and stability for their students, while business and industry, in order to be able to continue to make profits, must engage in cut-throat competition. They have to compete and engage in benchmarking. This paradox can produce tensions on both fronts. This problem has not been solved in the German dual system, nor is it clear if the Dutch qualification structure and system are capable of dealing with this paradox. It is, however, significant to recall Twining's lament in the UK a system must be given the chance to reach maturity. Optimising the Dutch system through careful studies and controlled interventions will increase the likelihood of success.

Responsiveness in the sense of responding swiftly should be complemented by responding wisely. Not every fashion is long-lasting and not every technological innovation endures or proves to be of major importance. That is why attempts to achieve deepening and broadening in the sense of key qualifications or basic skills are meaningful. It is all about teaching people to acquire learning strategies that they can

12 See, for example Westerhuis, A. & L. Hendriks (1997). *Vocational Education in the Netherlands. Developments in Initial and Continuing Vocational Education*. 's-Hertogenbosch: CINOP. For a recent overview of policy reconstructions relating to *KMBO*, see E. de Bruijn (1997). *Het experimentele en het reguliere: twintig jaar voltijds kort middelbaar beroepsonderwijs* (dissertation). Amsterdam: UvA. Furthermore, publications from Max Goote Kenniscentrum, University of Amsterdam.

apply in changing circumstances, so that their employability – their ability to acquire and retain a job – can be safeguarded. Of course, this skill is also dependent on dedication, motivation and intelligence, on the business climate and on human resource development and management. The principle of multiple or dual qualifying that was tested in a number of European projects might be considered, even if vertical access in the Dutch qualification structure is reasonable (Manning, 1996).

Whether the basic principles of the qualification structure (qualification level as training level as function level) are tenable will also have to be proved from labour market studies. Research into the flexibility and structure of the Dutch labour market shows that education and vocational education have become less function-specific (Borghans & Heijke, 1996). In this respect, the studies by the ROA contain interesting information to relate to the discussion on learning pathways. Does a learning pathway matter or not? Indeed, do different pathways effectively lead to employability and transferability? (Nijhof, 1996). For the time being, these studies broadly confirm the aim. If, however, we follow the development of labour organisations and these indeed evolve in the direction of self-learning flat organisations with few function hierarchies, then the level- classification should be reconsidered. This will, moreover, have to be done in a European context. The issue of a basic qualification for all will, anyway, continue to exist, and, particularly for the lowest groups, the question of whether the assistant level is 'working' and produces full recognition of diplomas on the labour market will have to be examined.

Recently a 'new' instrument was added to the existing techniques for occupational analyses. Much of the old criticism of occupational analyses – that they derive fairly linear and mainly technically rational qualifications from studies set up on a quantitative basis (see Brandsma, 1993; Laur-Ernst, 1990) and, as a result, overlook the essence of an occupation, namely that it includes structures or entities of activity complexes around specific core problems – has led to the testing of methods to chart core problems as activity complexes. It is, incidentally, interesting to observe that the influence of the activity theory thinking is now again becoming active, whereas in the 1970s, under the influence of Van Parreren, Russian psychology in the Netherlands gained access to these types of problems. Be that as it may, the work of Engeström (1994) has led to renewed interest in these types of problems (including Van Zolingen, 1997). Besides, activity complexes are being regarded differently through the use of role analyses, competencies and outputs (see Nijhof, Van Ginkel & Streumer, 1996). It is especially meaningful for the learning pathway and didactics how this way of dealing with core problems should be organised.

For the effective formulation of attainment targets as input for training profiles and examination requirements, more valid procedures should be followed that are geared to the above-mentioned ideas. If one follows an activity theory, the attainment targets should also be expressed in an activity theory way. If one holds a different view of occupations and of occupational practice – perhaps according to the level of occupational practice – one will also have to establish standards for their formulation in order to achieve harmonisation between and within attainment target documents. This is equally desirable between and within examination institutions and when laying down procedures for the recognition of informally acquired qualifications.

Furthermore, it has been established that, up to the present day, attainment target procedures have produced a great deal of paperwork, with few visible effects in the teaching and learning processes. After three generations of attainment targets within nine years, it would be advisable to take stock: at

what tempo and on what grounds should adjustments be made? How can the quality of attainment targets and their continued influence on education learning processes be safeguarded? The organising of improved vocational didactics, with new learning contents linked to the new learning pathways deserves to be given priority.

The internal flexibility of the system will require further study. The amalgamation of single-category schools into sectorial schools and then into community colleges, of course, does not mean that adult education, vocational education and contract education are being flexibly interwoven or integrated. Whether all the intended organisational effects in terms of added value, synergy, efficiency through scale and the linking of new learning pathways will materialise remains to be seen. For the time being, the problems of implementation are proving considerable and the basic conditions still have to be fulfilled.

If we survey the whole, we observe that, since the 1980s, a huge operation has been set in motion, where it is unclear whether the master plan had already been drawn up in the seventies. Be that as it may, adult education and vocational education and training have acquired a web-like organisation and an intriguing task: the promotion of the knowledge economy through qualifications.

## References

- Achtenhagen, F. (1994). How should research on vocational and professional education react to new challenges in life and in the workplace. In: Nijhof, W.J. & Streumer, J.N. (eds.). *Flexibility in Training and Vocational Education*. Utrecht: Lemma.
- Achtenhagen, F., Nijhof, W.J. & Raffe, D. (1994). *Feasibility study on Vocational Education*. Paris: OECD.
- Bastiaens, Th. (1997). *Werken en leren met Electronic Performance Support systemen*. Enschede: Universiteit Twente.
- Batenburg, Th. Van & Boer, P. den (1996). *Startkwalificatie en voortijdig schoolverlaten*. Amsterdam: Max Goote Kenniscentrum.
- Berryman, S.E. & Bailey, Th. R. (1992). *The Double Helix of Education and the Economy*. New York: Columbia University.
- Boer, P.R. den & Meesterberends-Harms, G.J. (1986). Onderzoek naar de ontwikkeling van programma-eenheden in het kort MBO. In: Plomp, Tj. & J.G.L. Thijssen (red.). *Curriculum-ontwikkeling voor beroepsonderwijs en bedrijfsopleidingen*, pp. 130-141. Lisse: Swets en Zeitlinger.
- Borghans, L. & Heijke, H. (1996). *Flexibility and the Structure of the Dutch Labour Market*. Paper gepresenteerd ter gelegenheid van ROA-10. Maastricht, 6 en 7 juni 1996.
- Brandsma, T.F. (1993). *Beroepsprofiel- en leerplanontwikkeling; de koninklijke weg als naïef traject?*, dissertatie. Enschede: Universiteit Twente.
- Brandsma, T.F., Nijhof, W.J. & Kamphorst, J.C. (1990). *Kwalificatie en curriculum*. Een internationaal vergelijkende studie naar methoden voor de bepaling van kwalificaties. Amsterdam/Lisse: Swets & Zeitlinger.
- Brandsma, T.F., Thuring-van der Linden, A.M.L. & Schuit-van der Linden, C. (1996). *Invoering van de Tweede Generatie eindtermen in het MBO; voortgang en vernieuwing*. Enschede: OCTO.
- Bruijn, E. de (1997). *Het experimentele en het reguliere: twintig jaar voltijds kort middelbaar beroepsonderwijs*, dissertatie. Amsterdam: Universiteit van Amsterdam.

- Bve-procescoördinatie (1992). Opmaat. *BE informatienummer 06*. Bunnik.
- Bve-procescoördinatie (1993). Kernpuntennotitie BE. *BE informatienummer 13*. Bunnik.
- Bve Raad (1997). *Vernieuwingsagenda BE-instellingen*. Visies op de Nieuwe Beleidsagenda Educatie en Beroepsonderwijs. De Bilt.
- Clarke, S. (1994). Scottish VOTEC outcomes, with reference to construction and tourism. In: Nijhof, W.J. & J.N. Streumer (eds.). *Flexibility in Training and Vocational Education*, pp. 87-109. Utrecht: Lemma.
- Commite Biesheuvel (1992). *Schering en Inslag*. 's-Gravenhage: Ministerie van Landbouw, Natuur en Visserij.
- Commissie Dualisering (1993). *Beroepsvorming langs vele wegen*. Leiden: DOP.
- Commissie Erkennen Verworven Kwalificaties (1994). *Kwaliteiten Erkennen*. Zoetermeer: Ministerie van Onderwijs en Wetenschappen.
- Dercksen, W. (1993). *Australië hervormt zijn beroepsonderwijs*. RU Utrecht (manuscript).
- Engeström, Y. (1994). *Training for Change: New Approach to Instruction and learning in working Life*. Geneva: International Labour Office.
- Eraut, M. (1994). *Developing Professional Knowledge and Competence*. London: The Falmer Press.
- Frederiksen, J. & Collins, A. (1996). Designing an Assessment System for the Future Workplace. In: Resnick, L.B. & Wirt, J.G. (eds.). *Linking School and Work*, pp. 193-223. San Francisco: Jossey Bass.
- Frietman, J. (1993). *Richtlijnen voor de toekomst*. Een onderzoek naar de Tweede Generatie Eindtermen opgesteld door het Bedrijfstakgewijze Overleg (BOOB's). Nijmegen: Instituut voor Toegepaste Sociale Wetenschappen.
- Fullan, M. G. (1991). *The new Meaning of Educational Change*. London: Cassell Educational Limited.
- Geerligts, J., Hoof, N. van, De Jong, M. & W.J. Nijhof (1996). *Eindtermen in het Landbouwonderwijs*. Enschede: Vakgroep Curriculumtechnologie.
- Geerligts, J. (1999). *Design of Responsive Vocational Education and Training*, dissertatie. Enschede: University of Twente.
- Geurts, J. (1989). *Van Niemandsland naar Beroepenstructuur*, dissertatie. Nijmegen: Katholieke Universiteit Nijmegen.
- Gordijn, J. (1998). *Computergestuurde feedback in Modulen*, dissertatie. Enschede: University of Twente.
- Groot, A.D. de (1986). *Begrip van evalueren*. 's-Gravenhage: VUGA.
- Harms, G.J. (1995). *Effecten van modulair beroepsonderwijs bij leerlingen: motivatie en rendement*, dissertatie. Groningen: Rijksuniversiteit Groningen.
- Heidegger, G., Jacobs, J., Martin, W., Mizaldaski, R. & Rauner, F. (1991). Betriebliche Organisationsentwicklung und Berufliche Bildung im Internationalen Vergleich. In: Dybowski, H. Pütz & F. Rauner (hrsgb). *Berufsbildung und Organisationsentwicklung*. Bremen: Donat.
- Hoeben, W.Th.J.G., Kwaliteitszorg in het Beroepsonderwijs. In: Nijhof W.J. (ed.). *Onderwijs Lexicon: Ontwikkelingen in het Beroepsonderwijs en de Volwasseneducatie*. Alphen aan den Rijn: Samson H.D. Tjeenk Willink, 1997.
- Hövels, B.W.M., Nieuwenhuis, A.F.M., Kraayvanger, G. & R. le Rütte (1995). *Landelijke Kwalificatiestructuur in Ontwikkeling*. ARO werkdocument 25. Adviesraad voor het Onderwijs. Leiden: DOP.
- Hoof, J.J. van & Dronkers, J. (1980). *Onderwijs en Arbeidsmarkt: Een verkenning van de relatie tussen onderwijs, arbeidsmarkt en arbeidssysteem*. Deventer: Van Loghem Slaterus.
- Hull, D.M. & C.A. Prescott (1984). *High Technology Careers. A guide for Counselors*. Waco, Tx: The Center for Occupational Research and Development.
- INSP (1994). *Stimulating Policy of implementing ICT in Education (1984-1988)*. 's-Gravenhage: Ministerie van Onderwijs en wetenschappen.

- IRDAC (1989). *Skills shortages in Europe*. Brussel: Europese Commissie
- Klink, M. van der (1999). *Effectiviteit van werkplekopleidingen*, dissertatie. Enschede: Universiteit Twente.
- Koninkrijk der Nederlanden (1995). 501 Wet van 31 oktober 1995, houdende bepalingen met betrekking tot de educatie en het beroepsonderwijs (*Wet Educatie en Beroepsonderwijs*). Staatsblad 1995.
- Lagemaat, D. van de (1986). *Onderwijzen in Ondernemen*, dissertatie. Culemborg: Educaboek.
- Laur-Ernst, U. (1999). *Integrated Learning of Complex Qualifications*. In: Nijhof, W.J. & Brandsma, J. (eds.). *Bridging the skills Gap between Work and Education* (159-169). Dordrecht: Kluwer Academic Publishers.
- Levin, H.M. (1984). *Education and Jobs in a Technological World*. Columbus, Oh. The National Center for Research in Vocational Education.
- Lokman, I., Van Woerkom, M. & De Bruin, C. (1996). *Rendement in de BVE-sector*. Een vooronderzoek naar de haalbaarheid van nieuwe rendementsindicatoren. Wageningen: Bureau Arbeidsmarktonderzoek. STOAS.
- Mager, R.F. (1975). *Preparing Instructional Objectives*. Belmont, Ca: Fearon Publishers.
- Manning, S. (1996). *Qualifications with a dual orientation; towards employment and higher education*. A comparative investigation of innovative schemes in seven European Countries. Berlin: WIFO.
- Ministerie van Landbouw, Natuur en Visserij (1992). *Overview of all Diplomas and Certificates (ODC)*.
- Ministerie van Onderwijs en Wetenschappen (1985). *Beroepsprofiel- en leerplanontwikkeling voortgezet beroepsonderwijs*. 's-Gravenhage: Ministerie van Onderwijs en Wetenschappen. Kamerstuk 19477.
- Ministerie Van Onderwijs en Wetenschappen (1988). *Voorstel van Wet op het Cursorisch Beroepsonderwijs (WCBO)*. 's-Gravenhage: Ministerie van O&W.
- Ministerie van Onderwijs en Wetenschappen (1993). *Changing Role of Vocational and Technical Education and Training*. Report to the OECD of the VOTEC-project. Zoetermeer.
- Ministerie van Onderwijs en Wetenschappen (1993). *Kernpuntennotitie over de Wet Educatie en Beroepsonderwijs*. Zoetermeer.
- Ministerie van Onderwijs en Wetenschappen (1993). *Kwalificatiestructuur secundair beroepsonderwijs*. Criteria voor het format. Zoetermeer.
- Moerkamp, T. & Onstenk, J.H.A.M. (1991). *Van Beroep naar Opleiding*. Inventarisatie van procedures voor het ontwikkelen van beroeps(opleidings)profielen. Utrecht: RVE.
- Mulder, R.H. (1996). *Leren Ondernemen. Ontwerpen van praktijkleersituaties voor het Beroepsonderwijs*, dissertatie. Rotterdam: Erasmus Universiteit.
- Nieuwenhuis, A.F.M. (1991). *Complexe leerplaatsen in school en bedrijf. Een studie naar de implementatie en effecten van participerend leren in het middelbaar beroepsonderwijs*, dissertatie. Groningen: Universiteit van Groningen.
- Nieuwenhuis, L. (1986). *Onderzoek naar participerend leren in het MEAO en MDGO*. In: Plomp, Tj. & J.G.L.Thijssen (red.). *Curriculumontwikkeling voor beroepsonderwijs en bedrijfsopleidingen*, pp. 142-150. Lisse: Swets en Zeitlinger.
- Nieuwenhuis, A.F.M. (1993). *Beroepsgerichte Leerplanontwikkeling*. In: Nijhof, W.J., Franssen, H.A.M., Hoeben, W.Th. G.J. & Wolbert, R.G.M. (red.). *Handboek Curriculum: modellen, theorieën, technologieën*. Amsterdam/Lisse: Swets en Zeitlinger.
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge Creating Company*. Oxford: Oxford University Press.
- Nijhof, W.J. (1996). *Curriculumkenmerken en arbeidsmarktperspectieven*. Paper gepresenteerd tijdens een symposium ter gelegenheid van ROA-10 te Maastricht (6 en 7 juni, 1996) Enschede: Universiteit Twente, Vakgroep Curriculumtechnologie.

- Nijhof, W.J. (1997). *Qualifying for the future*. In: Nijhof, W.J. & Streumer, J.N. (eds.). *Key Qualifications in Work and Education*. Dordrecht: Kluwer Academic Press.
- Nijhof, W.J. (red.) (1986). *Van beroepsprofielen naar curriculumprofielen*. Een symposium over methoden en technieken en beschouwingen over de relatie tussen beroepskwalificaties en eindtermen. Enschede: Universiteit Twente, Vakgroep Curriculumtechnologie.
- Nijhof, W.J., Van Ginkel, K. & Streumer, J.N. (1996). *Van Drukwerk naar Netwerk*. De Lier: Academisch Boekencentrum
- Nijhof, W.J. & Kamphuis, A. (1995). *Van eindterm naar instructie: een reconstructie*. Enschede: Universiteit Twente, Vakgroep Curriculumtechnologie
- Nijhof, W.J. & Mulder, M. (1986). *Basisvaardigheden in het Beroepsonderwijs*. 's-Gravenhage: SVO.
- Nijhof, W.J. & Streumer, J.N. (1994a). *Verbreed Beroepsonderwijs*. De Lier: Academisch Boekencentrum.
- Nijhof, W.J. & Streumer, J.N. (1994b). *Flexibility in Vocational Education and training: an introduction*. In: Nijhof, W.J. & Streumer, J.N. (eds.). *Flexibility in Training and Vocational Education*. Utrecht: Lemma.
- Nijhof, W.J. & Streumer, J.N. (eds.) (1997). *Key Qualifications in Work and Education*. Dordrecht: Kluwer Academic Press.
- Onstenk, J. (1994). *Leren en Opleiden op de Werkplek*. Amsterdam: RVE/A&O.
- Raffe, D. (1994). *The new flexibility in Vocational Education*. In: Nijhof, W.J. & J.N. Streumer (eds.). *Flexibility in Training and Vocational Education*. Utrecht: Lemma.
- Raizen, S.A. (1989). *Reforming Education for Work: a cognitive science perspective*. Berkeley: NCRVE.
- Reuling, J. & Koch, R. (1993). *Responsiveness in Vocational Education in Germany*. Berlin: BIBB.
- Rummler, G. & Brache, R. (1990). *Improving Performance*. San Francisco: Jossey Bass.
- Senge, P. (1990). *The Fifth Discipline: The Art and Practice of The Learning Organisation*. New York: Doubleday Currency.
- Streumer, J.N., Thijsen, J.A. & Nijhof, W.J. (1991). *Contractonderwijs in Ontwikkeling: van opleidingsvraag naar gemoduleerd cursusaanbod*. Woerden: ACON.
- SVM procescoördinatie (1989). *Voortgangsrapportage*. Informatieblad over Sectorvorming en Vernieuwing van het MBO. no. 23 (27 juni 1989/ maart 1989).
- Tijdelijke Adviescommissie Onderwijs Arbeidsmarkt (1990). *Onderwijs-Arbeidsmarkt: naar een werkzaam traject*. Alphen aan den Rijn: Samsom H.D. Tjeenk Willink.
- Tucker, M.S. (1996). *Skills Standards, Qualifications Systems, and the American Workforce*. In: Resnick, L.B. & Wirt, J.G. (eds.). *Linking School and Work*, pp. 23-53. San Francisco: Jossey Bass.
- Twining, J. (1993). *Vocational Education and Training in the United Kingdom*. CEDEFOP: Berlin.
- Vickers, M. (1996). *New Directions in the Assessment of high school Achievement: Cross-National Perspectives*. In: Resnick, L.B. & Wirt, J.G. (eds.). *Linking School and Work. Roles for Standards and Assessment*, pp. 341-381. San Francisco: Jossey Bass.
- Wagner Commissie (1984). *Op weg naar een gezamenlijke verantwoordelijkheid*. Eindrapport van het Open Overleg over de voorstellen van de Commissie Wagner inzake het Beroepsonderwijs. 's-Gravenhage: Staatsuitgeverij.
- Westerhuis, A. & Hendriks, L. (1997). *Vocational Education in the Netherlands. Developments in Initial and Continuing Vocational Education*. 's-Hertogenbosch: CINOP.
- Wolf, A. (1998). *Competence Based Assessment. Does it shift the demarcation lines?* In: Nijhof, W.J. & Streumer, J.N. (eds.). *Key Qualifications in Work and Education (207-220)*. Dordrecht: Kluwer Academic Publishers.
- Zolingen, S. van (1995). *Gevraagd Sleutelkwalificaties*, dissertatie. Nijmegen: Katholieke Universiteit Nijmegen.



---

Zolingen, S. van (1997). *Analysis of key qualifications and core problems in working life contexts*. Paper presented at the Multi-Level Seminar on the CEDEFOP project "Key Qualifications" (2-3 juni 1997, Amsterdam. Universiteit Twente: Vakgroep Curriculumtechnologie.



## 3 Evaluation of an Act: methodology and process

KLARI-JANNE POLDER

*The WEB (Adult and Vocational Education Act) came into force on 1 January 1996. This contained a regulation that the Act had to be evaluated before 1 January 2002 for effectiveness and efficiency. The Minister of Education installed a Steering Committee, which reported to the Minister in June 2001. This chapter presents the content and the process of the evaluation. The content consists of the targets of the Act and the changes that were implemented to realise these targets. The main changes concerned the national qualification structure, the system of quality control, the funding model, the decentralised steering of adult education and vocational practical training. The performance of the evaluation consisted of eight steps, with the Minister selecting the evaluation themes. The Steering Committee coordinated the scientific evaluation programme, which was conducted by several Dutch universities and knowledge institutes. The evaluation resulted in eight research reports, on the basis of which the Steering Committee organised a hearing for interest groups, which they also did at the beginning of the evaluation. At the end of the evaluation process, the Steering Committee formulated its definite overall conclusions and recommendations, independently of the researchers on the one hand, and policy-makers on the other. The publication of the Steering Committee's report marked the end of the scientific evaluation and the beginning of the political evaluation.*

### 3.1 Introduction

The Adult and Vocational Education Act came into force on 1 January 1996 (*Staatsblad* 1995, 501) and simplified the existing acts and regulations. More importantly, it brought together MBO (upper secondary vocational education) and adult education in one and the same statutory framework. A radical process of mergers was carried out, which resulted in the hundreds of publicly funded educational institutions being reduced to 43 community colleges, plus a number of more specific VET institutions nowadays.

Community colleges are sizeable institutions with, on average, about 15,000 students. They provide adult education (i.e. non-tertiary education) for students from eighteen years upwards. Besides adult education, community colleges provide MBO (i.e. post-16 education). In 2000, student enrolments in MBO numbered 425,000 and in adult education 150,000.

It is remarkable that in this Act two very different steering philosophies are combined, namely one for adult education and one for MBO.

The Act introduced a new administrative policy on adult education, a form of decentralisation through which local authorities were given greater powers of decision-making, instead of the educational institutions themselves (Polder, 2001; 1996; Polder et al., 1998a; 1998b). The board of the local authority, on the one hand, and the competent authority of the community college, on the other, draw up a contract on the basis of the Act. Each local authority is responsible for funding the chosen institution for the provision of adult education. In this way, access for students is regulated.

In addition to adult education, community colleges provide MBO, even though the latter is carried out on a quite different funding basis, in which local authorities do not play a role at all. For the provision of MBO, central government directly allocates funds to the community colleges. The funding basis is 80% input (i.e. related to the number of students) and 20% output (i.e. related to the number of diplomas). The national budget for adult education and MBO together amounts to a total of over two billion Euros (Van Wieringen & Attwell, 1999). During the past few years, the Dutch Lower Chamber has monitored the implementation process.

The Act prescribes that the Minister of Education has to report to the Lower Chamber on the effectiveness and efficiency of this Act before January 1, 2002. Such a regulation to evaluate is unique. For example, the Act is comparable with the Learning and Skills Act 2000, which came into force in England. However, in the latter case, an evaluation regulation is lacking. To comply with this prescription, a Steering Committee for the Evaluation of the Act was installed by the Minister in June 1999 (*Instellingsbeschikking, Uitleg*, no. 18, 23 June 1999). The final report of the Steering Committee on the functioning of the Act was based on independent scientific research and was submitted to the Minister in June 2001 (*Stuurgroep Evaluatie WEB*, 2001).

An evaluation of the Act can be characterised by three stages:

- the analysis of the content of the Act, which is the starting point for the evaluation;
- the methodology and process;
- the outcomes and effects of the evaluation.

In this chapter, we concentrate on the first two stages, namely the content and the methodology. In chapter 14, we shall concentrate on the last stage, namely the outcomes and effects of the evaluation. The stages of evaluation are presented in figure 3.1.

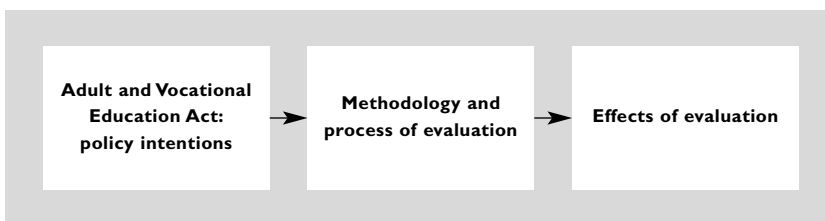


Figure 3.1: Stages of evaluation

### 3.2 Theory of evaluation

Evaluation of the functioning of a specific act is important. In an act, specific instruments are regulated, by which the government tries to realise a certain quality in *MBO* and adult education. The act is supposed to regulate the quality of the education system. The evaluation of an act consists of determining and judging that contribution. Thus, an evaluation implies more than just a description of the existing situation.

In the case of the evaluation of an Act, it is the influence of the statutory instruments on the functioning of the education system that is central, not the education system itself.

The evaluation of an act is a specific part of the policy cycle, i.e. the stages by which policy is made by government, and subsequently implemented and monitored. Finally, feedback is given to the policy-makers. We presuppose that the quality of the policy cycle, and, in particular, the quality of the evaluation and the conclusions politicians draw from the evaluation results determine the quality of the legislation.

Evaluation contributes to the rationality of the policy cycle and therefore results in new laws, regulations and practice of higher quality. When this policy cycle is going well, the evaluation results form the feedback to the policy-makers. Evaluation results can lead to changes, not only in the Act itself or in its regulations, but also in the way actors perform in accordance with the Act.

The functioning of the Act (i.e. its effectiveness and efficiency) is mainly determined by three factors:

- the content of the Act itself (i.e. the whole of the regulated instruments);
- the regulations which the Minister has decided within the framework of the Act;
- the performance of the actors (for example, educational institutions) who have to observe the Act.

If it turns out that the Act is not functioning well, there are several possible causes. Any recommendation should be in accordance with the cause. Only if the first factor is the cause of the non-functioning is it appropriate to amend the Act. However, if the second factor is the cause, the Minister has to adjust his regulations. And if the third factor is the cause, the Act should be observed and the Minister can give directions to the actors about how they should perform their tasks.

Difficult questions arise when all three factors are problematic at the same time. Of course, external factors may also play a role, but because they influence the system from outside, they usually cannot be rearranged.

In the evaluation of the effects of an act, the central question is to what extent its targets have been attained as a result of the statutory instruments. The degree of effectiveness of an act has to be distinguished from the degree of target attainment. The degree to which certain targets have been attained can easily be the result of other factors, independent of the act. If we consider the recent period of economic boom, as a result of which graduates easily found jobs on the labour market, the effectiveness of the Act (i.e. the realised quality of vocational education) in this situation seems evident. A scientific evaluation concentrates on the question of whether policy effects are indeed caused by policy interventions. This question of causality is usually very difficult to answer methodologically (cf. Bressers & Hoogerwerf, 1991; Cronbach e.a., 1981; Rossi & Freeman, 1989).

### 3.3 Content of the Act

In this section, we focus on the content of the Act, because this is what determines what has to be evaluated and how the results should be interpreted.

The *targets of the Act* are described as follows:

- implementation of a national qualification structure for *MBO*;
- improvement in the match between education and the labour market;
- improvement in the match between adult education and *MBO*;
- coherent decision-making for adult education.

With a view to achieving these targets, the government revised the division of powers between the state, local authorities, lead bodies, community colleges and other training institutions. A differentiated provision for adult and vocational education should be developed. It should cater for societal and individual demands for vocational and adult education. The provision should contribute to an adequate level of education on the one hand, and should be sufficiently accessible to students on the other.

To attain these targets, some changes were implemented when the Act came into force:

- a implementation of a national qualification structure;
- b development of a system of quality control;
- c a funding model for vocational education;
- d decentralised administrative steering of adult education;
- e reinforcement of work-based learning.

#### **RE. A. IMPLEMENTATION OF A NATIONAL QUALIFICATION STRUCTURE**

The Act regulated the conditions under which a qualification structure for *MBO* should come into existence. The qualification structure arranges the different qualifications and partial qualifications for which attainment targets for students are determined. The qualification structure for VET consists of four levels, comparable to the ISCED 3A and ISCED 3C programme orientation in accordance with the International Standard Classification of Education (ISCED-97). A certificate at the highest level allows a student to transfer to *HBO* (higher professional education).

The qualification structure should lead to:

- greater transparency of courses and certificates;
- recognition of vocational qualifications by branches (nationally and internationally);
- improvement in transfer along efficient tracks;
- easier recognition of qualifications already attained through assessment of prior learning;
- reducing the number of unqualified school-leavers.

The target of the qualification structure for adult education was to realise an effective transfer from adult education to *MBO*.

#### **RE. B. DEVELOPMENT OF A SYSTEM OF QUALITY CONTROL**

In accordance with the Act, each community college became responsible for the development of a system of quality control. The system consists of an internal and an external part. The internal part includes self-evaluation by the institution, and in the external part, other forms of quality control play a role, such as a quality control report and an audit commission of external experts. In the first place, the system of quality control should contribute to improvement in educational quality. Besides, a

system of quality control (and the quality judgements resulting from it) is an essential element in the new administrative relationships. If the quality of education turns out to be unsatisfactory, the government has the power to impose sanctions on the educational institution.

#### **RE. C. THE VOCATIONAL EDUCATION FUNDING MODEL**

The funding model for *MBO* should be given a more pronounced output character. Student performance is funded according to this funding model, which is defined in advance. The government expected the funding model to improve the performance of students of a particular institution. In this way, the funding model functioned for greater social responsibility by the educational institutions.

#### **RE. D. DECENTRALISED ADMINISTRATIVE STEERING OF ADULT EDUCATION**

The decentralised administrative steering of adult education, according to which local authorities contract community colleges for the provision of adult education, should create a system that is focused on societal results for those people who cannot directly find a place in other educational provisions. The local authorities should identify their target groups.

#### **RE. E. REINFORCEMENT OF WORK-BASED LEARNING**

In vocational education, it is possible to become qualified by means of two different learning pathways:

- a school-based pathway, in which the percentage of work-based learning is between 20 and 60%;
- a work-based pathway, in which the percentage of work-based learning is 60% or more.

With this model, the Act should reinforce vocational practical training in *MBO*. As a consequence, the involvement of business and industry would be reinforced, which would contribute to a better match between education and the labour market.

### **3.4 Methodology and process of the evaluation**

In this section, we describe how to evaluate an act, i.e. in terms of both the evaluation methodology and the evaluation process.

The methodology of the evaluation of the act is characterised by:

- prescription in the act to conduct an evaluation;
- focus on a limited number of themes;
- formative evaluation;
- independent status of the Steering Committee which coordinated the evaluation;
- scientific evaluation as the basis for the political;
- hearings for stakeholders and interest groups.

Special attention should be given to the fact that the evaluation of the Act concerned a *formative evaluation* rather than a summative evaluation in the end (Nijhof & Stijnen, 2001).

A formative evaluation results in recommendations to improve the functioning of the Act.

In the year 2001, i.e. five years after the Act had come into force, a mid-term review was drawn up. This was not a final, but a mid-term, judgement of the implementation process, because the vocational courses according to the Act started only in August 1997. The data gathering covered no more than four school years. The first students graduating from the long, four-year courses did not leave the community colleges until the middle of the year 2001. Nothing could yet be said about the transfer of

students to *HBO*; and as regards the transfer of students to the labour market, only very preliminary conclusions were possible. Thus the evaluation of the Act explicitly concerned a formative evaluation, i.e. an evaluation in function of the implementation process.

The evaluation process was conducted in 8 steps:

- Step 1: selection of themes by the Minister of Education;
- Step 2: installation of the Steering Committee;
- Step 3: first hearing;
- Step 4: formulation of definitive evaluation questions;
- Step 5: system of scientific evaluation programme;
  - Step 5a: preliminary investigation;
  - Step 5b: main investigation;
  - Step 5c: publication of research reports;
- Step 6: second hearing;
- Step 7: formulation of the final evaluation report by the Steering Committee;
- Step 8: political evaluation by the Minister.

### 3.4.1 Selection of evaluation themes

In step 1 of the evaluation process, the Department of Education carried out a lot of preliminary work, in terms of analysis of the policy documents, especially the sections of the Act and the explanatory memorandum, in which the main targets of the Act were set out. The Minister chose the evaluation themes and ordered the Steering Committee to focus on the evaluation of seven themes:

**Theme 1:** focused on the VET system catering for societal demands and on the match between education and the labour market.

The central evaluation question was: Does the Act steer the actors in such a way that they are able to function, directed at catering for societal demand and labour market demand?

The main subjects had to do with the effectiveness and efficiency of the national vocational qualification structure and the quality of work-based learning in companies.

**Theme 2:** focused on the VET system catering for individual demand, on the accessibility of education and on the position of the student.

The central evaluation question was: Does the Act steer the actors in such a way that they are able to function, directed at catering for individual demand, at the accessibility of education and at the reinforcement of the individual student's position?

Included among the main subjects were the differentiation in educational provision and the provision for students at risk.

**Theme 3:** focused on the quality and level of provision and examinations.

The central evaluation question was: Does the Act steer the educational institutions and the examination institutions in such a way that they can guarantee provision and examinations of sufficient quality, directed at external demand?



The main subject was the competition between examination institutions and its effect on the quality of examinations.

**Theme 4:** focused on the efficiency of learning pathways and internal and external student performance.

The central evaluation question was: Does the Act offer sufficient conditions to attain optimal accessibility to education for students, optimal student performances and optimal transfer to the labour market and to further education (especially *HBO*)?

**Theme 5:** focused on the match between the VET system on the one hand, and the other relevant systems on the other, in terms of programme content.

The central evaluation questions were: Does the Act offer sufficient conditions to realise an optimal match between compulsory secondary education on the one hand, and *MBO* on the other? Does the Act offer sufficient conditions to realise an optimal match between *MBO* on the one hand, and *HBO* on the other?

**Theme 6:** focused on the autonomy of institutions and their quality control system.

The central evaluation question was: Does the Act offer sufficient conditions to educational institutions so that they can be self-steering, pursue a good policy and have a quality control system directed at external demands?

In this theme, the funding system was also an important subject.

**Theme 7:** focused on administrative relationships and on the administrative load.

The central evaluation question was: Does the Act offer sufficient conditions to realise optimal administrative relationships between actors, which have a task according to the Act, and to decrease the administrative load?

The main subjects for study were the transparency of role division, information exchange and legal aspects, such as the right of appeal.

The Steering Committee formulated the central questions for each theme (in step 4), which acted as guidelines for the evaluation research. In the scientific evaluation programme, an evaluation model was used to position the themes. This evaluation model is presented in figure 3.2. The numbers 1 to 7 (in brackets) refer to the evaluated themes. The Steering Committee put the themes out to tender (in step 5).

In this figure, three main dimensions are distinguished:

- factors;
- intermediate effects on the VET system and adult education; and
- end effects.

Between these frameworks, causal relations could be considered. In the figure, four influencing factors are mentioned, namely:

- I Adult and Vocational Education Act (i.e. the Act regulates several instruments);
- II policy rules of the Minister;
- III behaviour of actors who have a role to play according to the Act;
- IV external factors, which have an autonomous influence, but were kept outside the evaluation.

The factors I to III influence the VET system. Four aspects of the VET system are distinguished:

- provision, directed at labour market/society (theme 1);
- provision, directed at the individual (theme 2);
- quality of provision and examining (theme 3);
- programme match between lower secondary education and *MBO* respectively *MBO* and *HBO* (theme 5).

Two aspects, namely the 'Capacity of the institution to make its policy' (theme 6) and the public 'Administrative relationships' (theme 7) could be considered to be conditions of the functioning of the VET system. Three end effects are distinguished in the figure:

- catering for labour market demand/societal demand;
- catering for individual demand, accessibility;
- output on the basis of student monitoring systems (theme 4).

### 3.4.2 Status and tasks of the Steering Committee

In step 2 of the evaluation process, the Minister installed a Steering Committee.

The Minister allocated the following tasks to the Steering Committee:

- a exploring the knowledge base needed for the different evaluation themes;
- b coordinating the opening up and compiling of existing knowledge about the adult and vocational education sector;
- c ensuring a balanced input of different sources of information in the knowledge base. In any case, past and current scientific research should be involved, as well as information from the Central Office for the Financing of Institutions, the Central Statistical Office, the Inspectorate of Education and educational support institutions;
- d hearing organised interest groups (which, in any case, included the *Bve Raad*, i.e. the council of public community colleges, the *COLO*, representing the lead bodies, Paepon, representing private adult education and training institutes, the association of local authorities, and representatives of employers and employees);
- e protecting the methodological and theoretical research principles; and
- f guiding and steering knowledge transformation in concluding reports for the Minister's Report to the Dutch Lower Chamber.

In the Committee's assignments, the scientific character of the evaluation is very explicit.

It is very important to mention that the members and chairman of the Steering Committee had an independent status in relation to the Minister and organised interest groups, which have been involved in the legislation and implementation of the Act. This can be considered to be an essential condition to judge in an objective way. The members were scientific, social or administrative experts. The Steering Committee was independent in terms of composition and scientific approach; however it was not so in terms of the evaluation themes. The Steering Committee was, however, free to formulate and rearrange evaluation questions within and in between each theme (in step 4). These evaluation questions acted as guidelines to the evaluation research the Steering Committee commissioned to scientific researchers and institutes (in step 5). The Steering Committee was independent in its choice.

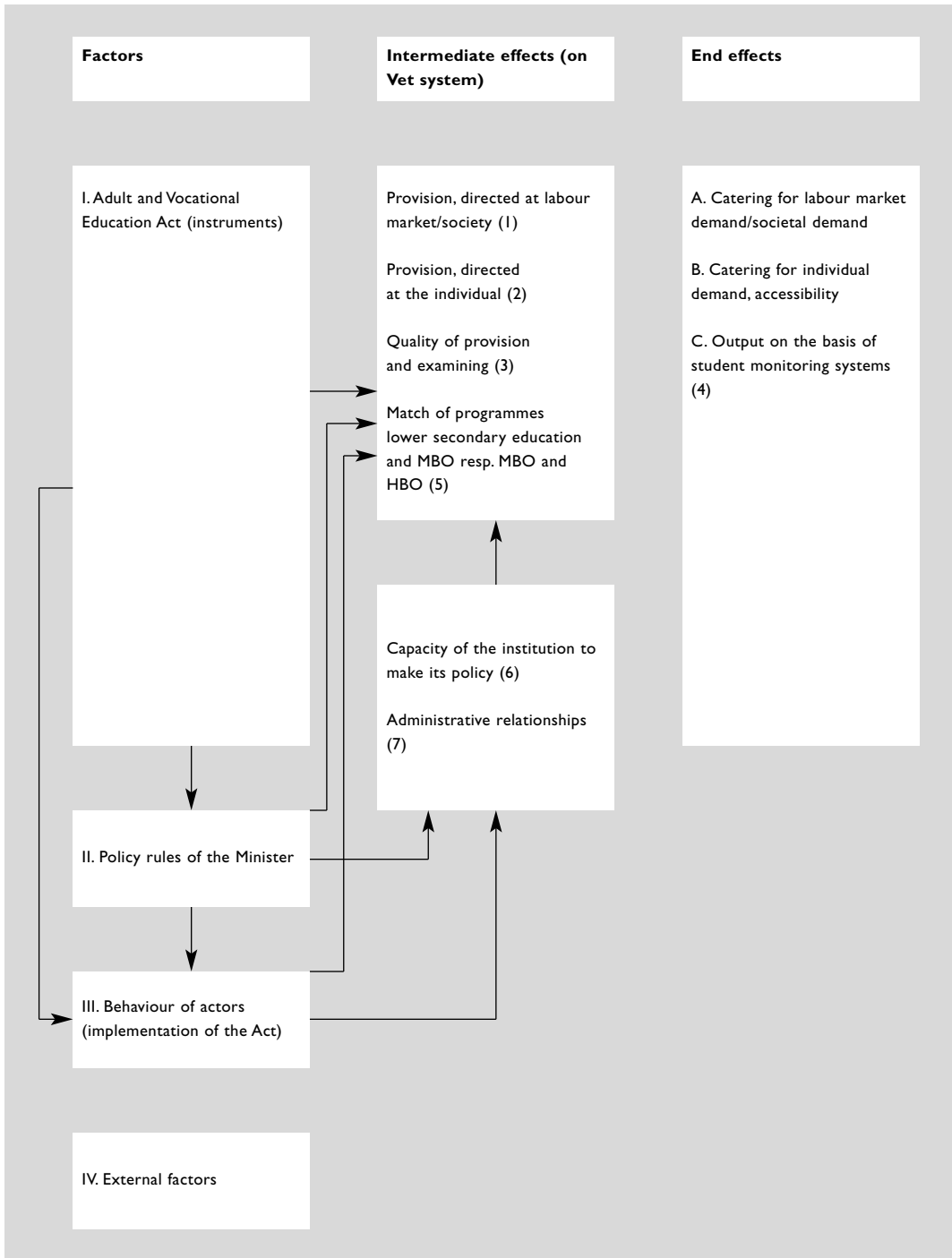


Figure 3.2: Scheme of evaluation factors and effects

### 3.4.3 Scientific evaluation programme

In step 5 of the evaluation process, the Steering Committee coordinated a scientific evaluation programme, in preparation for the political evaluation by the Minister and the Lower Chamber (in step 8). The evaluation report should be based on scientific research.

The budget for commissioning research in the framework of the evaluation programme amounted to a total of nearly 1 million Euros. Thus the Steering Committee had an ample budget at its disposal, thanks to the Department of Education and some other financiers.

Firstly, the Steering Committee commissioned a preliminary investigation into each theme (step 5a), to explore the knowledge base, which was already available in several organisations. In addition, the Steering Committee commissioned a main investigation into each theme (step 5b), to gather new, empirical data about the themes and questions.

The research included a variety of methods, such as studies of literature, case studies, surveys and secondary analysis and simulations. Due to the political deadline, the Steering Committee was limited in time: the studies had to be conducted in about one year. This tight time schedule limited the choices of research designs. For example, a longitudinal study was only possible by using available student monitoring systems for secondary analysis. Besides, reliable student monitoring systems were lacking. It was therefore impossible to conduct a cohort study to explain the impact of legal regulations on the student output attained.

The evaluation studies were carried out by the University of Twente, Maastricht University, CINOP, STOAS Research Wageningen, the University of Amsterdam, and Brabant University.

The Steering Committee organised two workshops with the research coordinators, to gear the themes to one another. In addition, it organised deliberations with the individual research coordinators. One very important methodological debate concerned the evaluation question of when the functioning of the Act in relation to a specific theme could be judged as satisfactory. The conclusion was that the functioning of the Act has to be judged according to its own standards, mainly expressed by the targets of the Act. To what degree have the targets been attained as a result of the Act? This question is very difficult to answer in methodological terms.

It is conceivable that the state of the art has been improved, compared to that in the period before the Act came into force, but that, at the same time, the policy targets have not yet been wholly attained. The Steering Committee and researchers therefore spent a great deal of time making the evaluation standards operational. Researchers often used a combination of 'hard' and 'soft' criteria. In the first case, the criterion is based on measurable facts; in the second, the researcher is judging the situation by using arguments.

The fact that policy-makers had not formulated the themes and the targets of the Act satisfactorily in measurable terms hampered the evaluation – an omission already identified by the General Auditor (Lower Chamber, 1997-1998, 26 065, no. 1-2).

The evaluation programme resulted in eight research reports, delivered with the guidance of the Steering Committee. The researchers were allowed to formulate conclusions and recommendations independently on the basis of their research results. The reports were published (step 5c) in June 2001.

### 3.4.4 Hearings

The Steering Committee organised a hearing for interest groups at two moments in the evaluation process, namely:

- at the beginning (step 3): before the definitive evaluation questions were determined (with which the Steering Committee commissioned the evaluation research). The aim of the first hearing was to explore the main visions and problems of interest groups;
- at the end (step 6): before the final report was submitted to the Minister. The aim of the second hearing was to give the interest groups an opportunity to react to the preliminary recommendations formulated by the Steering Committee.

The actors to which statutory tasks have been attributed are, in addition to interest groups, also objects of the evaluation. The Steering Committee therefore adopted an attitude of distance. It sent a letter to the community colleges and the lead bodies with a request that they cooperate and provide the information the researchers asked for. Otherwise the evaluation could not succeed.

In the evaluation, the position of the Inspectorate of Education is very special. It supervises strict observance of the Act by the educational institutions on the one hand. However, it is an actor itself with specific tasks, attributed by law, on the other. Considering this, its functioning is the same as the other actors: object of evaluation. The Inspectorate made its published material available for use in the evaluation research, such as its reports about the functioning of community colleges.

Evaluation research takes time. It turned out to be necessary to inform the interest groups structurally. Newsletters were therefore sent round, long before the research reports were published.

The second hearing took place two months before the Steering Committee published its final evaluation report. To prepare themselves, the interest groups received all the draft reports several weeks before the second hearing. They were able to read the results, conclusions and recommendations of the researchers. Furthermore, the Steering Committee sent a discussion paper, which contained its opinion on selected major problems, resulting from a lack of functioning of the Act. The Steering Committee formulated preliminary recommendations to solve each major problem. It was striking that the interest groups were divided into two camps (see further chapter 14). The opposing groups directly addressed the Minister, thus creating a lot of turmoil during the hearing.

### 3.4.5 Final evaluation report

At the end of the evaluation process (step 7), the Steering Committee formulated its definitive overall conclusions and recommendations independently. The research reports, as well as the opinions expressed during the hearings, served as input to reflect critically on this final evaluation report. The report was presented to the Minister during a press conference and was published. This event was the starting point for the political evaluation (step 8).

### 3.5 Conclusions and discussion

This chapter has focused especially on the methodology and the process of evaluation of the Adult and Vocational Education Act. This evaluation is a Dutch example of how to evaluate an education act regulating the VET system. It can serve as an interesting case for other countries that have the intention to evaluate their laws systematically and improve these on the basis of the evaluation results. The Dutch evaluation was an extensive one. In the Netherlands, eight steps were followed to conduct the evaluation of the Act. A special Steering Committee was installed and was able to operate independently to a great extent. A lot of scientific research of good quality was conducted. Interest groups were involved at crucial moments; they were informed by the published research reports before the final evaluation report was written. The scientific evaluation programme was followed by a political evaluation. More is written about the effects of the scientific evaluation on the political evaluation outcomes in chapter 14.

In this chapter, we focus on methodological questions, such as: Would it be possible to conduct the evaluation of an act in another way? Of course, for example in the Netherlands, the community colleges and institutions for higher education evaluate themselves, in relation to an act on the modern university structure. In other countries, for example, in England, the role of the Inspectorate in the evaluation activities seems more important. However, in this chapter, we have stated that the Dutch parliament preferred to have a totally independent status for the evaluating body. In methodological terms perhaps, an extra step could be added, directed at what we might call the creation of commitment to adopt the evaluation report.

Another methodological item concerns the moment of evaluation. In the Act, the date of evaluation was prescribed, but it turned out to be too early to evaluate the new courses of the VET system completely. Thus we can characterise this evaluation as a formative evaluation, even as an 'early warning evaluation'. In a few years' time, a follow-up will certainly be needed to obtain a definitive overview of the results. The fact that policy-makers had not formulated the targets of the Act satisfactorily in measurable terms hampered the evaluation. Even more of an impediment was the lack of reliable student monitoring systems to explain the effectiveness of the new courses. We conclude that the timing of the evaluation of an act is crucial and that adequate data-gathering should be set up in advance of the evaluation itself. In itself, these conclusions could serve as a recommendation to the Minister to better regulate the monitoring system of VET and Adult Education.

### References

- Bressers, J.Th.A. & Hoogerwerf, A. (red.) (1991). *Beleidsvaluatie*. Alphen aan de Rijn: Samsom H.D. Tjeenk Willink, 2e druk.
- Cronbach, L.J. and associates (1981). *Toward reform of program evaluation*. San Francisco: Jossey-Bass Publishers, first edition, second printing.
- Lower Chamber, 1997-1998, 26 065, no. 1-2.
- Nijhof, W.J. & J. Stijnen (2001). De formatieve evaluatie van de Wet Educatie en Beroepsonderwijs. *Pedagogische Studien*, 78, 6. pp. 225-235.
- Polder, K.-J. (1996). *Implementatie van wetgeving in onderwijs. Beleidsvaluatie-onderzoek in basisonderwijs en volwasseneneducatie*, dissertatie. Leuven-Apeldoorn: Garant.

- Polder, K.-J. & Huisman, T. with the cooperation of Bremer F. and Karsten, S. (1998a). *Ontwikkelingen in de educatie: Tweede meting in het kader van de educatie-monitor in 1998 naar de implementatie van de WEB bij gemeenten en ROC's* Amsterdam: SCO-Kohnstamm Instituut/'s-Hertogenbosch: CINOP.
- Polder, K.-J. with the cooperation of Karsten, S. (1998b) *Educatie onder de Wet Educatie en Beroepsonderwijs: Ontwikkelingen in 1998. Deelrapport I: Resultaten van de case studies*. Amsterdam: SCO-Kohnstamm Instituut.
- Polder, K.-J. (May-June 2001). Decentralization and adult education: a case study of the Netherlands. *International Journal of Lifelong Education*, vol. 20, no. 3, 237-252.
- Rossi, P.H. & Freeman, H.E. (1989). *Evaluation. A systematic approach*. Newbury Park: Sage publications, fourth edition.
- Staatsblad (1995). *Wet educatie en Beroepsonderwijs*. 's-Gravenhage: Sdu Uitgevers.
- Stuurgroep Evaluatie WEB (2001). *De WEB: van eenvoud naar evenwicht* Also published on the website of the Dutch Department of Education, Culture and Science ([www.minocw.nl](http://www.minocw.nl)). Zoetermeer: Stuurgroep Evaluatie WEB.
- Uitleg*, 18, 23 June 1999. Instellingsbeschikking Stuurgroep Evaluatie WEB.
- Wieringen, F. van & Attwell, G. (eds.) (1999). *Vocational and Adult Education in Europe*. Dordrecht/Boston/ London: Kluwer Academic Publishers.





# Section 2

Responsiveness  
of the system



## 4 The effectiveness of the qualification structure

JITTIE BRANDSMA

*This chapter focuses on the evaluation of the national qualification structure for VET. It concerns itself with the question of whether expectations with regard to the qualification structure have been met, and whether the development and steering model underpinning it can explain the extent to which these expectations have been met.*

### 4.1 Introduction

The qualitative match or mismatch between vocational education and training (VET) and occupational practice is an issue that has been debated for over thirty years. The statement “they cannot even hold a hammer”, which could be heard frequently during the late 1970s and early 1980s, summarises in a popularised form the core of the problems experienced. The content of vocational curricula did not match the requirements of and developments in occupational practice. Following the recommendations of various advisory bodies (ACVIB, 1983; OOVO, 1984), attempts were made to tackle the problems by establishing procedures and structures for curriculum development in VET. A leading principle in this was the increased involvement and influence of the government and both sides of industry with regard to the content and the design of VET. The content specification of VET should be based on the subsequent development of occupational profiles, training profiles, and framework curricula – a developmental sequence, which was and still is considered to be the ‘royal approach’ (Brandsma, 1993). This ‘royal approach’, however, was and is disputed. It has been characterised as a ‘naive model’, which focuses too much on a one-to-one reflection of occupational structures in the structure of VET programmes. In addition to this, the approach does not take sufficient account of the factors that complicate the quantitative and qualitative match between education and the labour market. Furthermore, both the provision and the translation of information are considered problematic in this approach. With regard to the information provision, both the tenability and the quality of the information provided by the two sides of industry are at stake. The quality of the information provided primarily refers to the extent to which future developments, complexity and coherence in the occupational field can be taken into account. Where the translation of the information provided is involved, this mainly concerns the question of how occupational profiles could and should be translated into teaching and learning processes, with outcomes that are recognised by both sides of the labour market (Brandsma, 1993; Nieuwenhuis, 1993).

Since the early 1990s, this 'royal approach' was the basis for curriculum development in all VET (*Convenant Rauwenhoff* (the Rauwenhoff Commission), 1991). Following the recommendations of the Advisory Body Education-Labour Market (*Adviescommissie Onderwijs-Arbeid*, 1990), it was agreed that new national or lead bodies for vocational education (LOBs) would be installed, with responsibility for developing training profiles and framework curricula for all VET, on the basis of inventories and occupational profiles as provided by the two sides of industry<sup>13</sup>. In this context, it also became the task of the lead bodies to develop and attune the attainment targets of full-time, part-time and dual programmes in such a way that one national qualification structure would emerge (MOW (Ministry of Education) 1993a, 1993b)<sup>14</sup>.

This chapter closely considers the evaluation of the national qualification structure for VET. The main focus of the chapter concerns the question of whether expectations with regard to the qualification structure have been met and whether the development and steering model underpinning it can explain the extent to which these expectations have (or have not) been met.

The Netherlands is not the only country revising its upper secondary education and vocational education system as a reaction to the challenges of the 21st century (Nijhof, Heikkinen & Nieuwenhuis, 2002). Various – mainly European – countries are undertaking major reforms in their education systems. Although the reasons for such reforms are quite similar, countries diverge in their particular solutions, which are related to the historical characteristics of their education systems (Green, Wolf & Leney, 1999). At the end of this chapter, we will relate the experiences in the Netherlands and the results of the evaluation presented in this chapter to experiences gained in other countries, in particular England and Germany.

## 4.2 The development model for the qualification structure

The introduction of the qualification structure forms part of the implementation of the Adult and Vocational Education Act (*WEB*). The *WEB* created a legal framework for all vocational and adult education. Together with the previous part-time non-formal education, vocational and adult education were institutionally integrated into the new community colleges (*ROCs*). One of the objectives of the *WEB* is to improve the match between education and the labour market. Even though substantial educational and organisational reforms have taken place during the last three decades, improvement in this match remains a focal point of VET policy. This is due not least to the rapid developments in occupational practice and changes like the disappearance of lifetime employment, the flexibilisation of labour and increased expectations with regard to employee flexibility (OECD, 1996, 2000). At the same time, there is an increasing awareness that the match between VET and the labour market does not only concern the occupation-specific knowledge and skills of young people and their direct availability,

<sup>13</sup> Until then national bodies for apprenticeship training had existed, catering for curriculum development for the apprenticeship schemes and a separate, temporary structure of advisory bodies responsible for curriculum development for school-based VET. With the installation of the new lead bodies these two structures merged.

<sup>14</sup> The definition of a qualification structure is: "The totality of qualifications and partial qualifications that are based on final attainment levels and that are distinguished within senior vocational education (*Memorie van Toelichting* (Explanatory Memorandum)), 1991, p.40).

but also their capacity to function in changing circumstances and working environments. Initial VET needs to provide the basis for occupational careers, lifelong learning and employability (MOW, 1993b). Against this background, broadness and sustainability were declared the leading principles for the development of the qualification structure. Broad and sustainable qualifications have to ensure that school-leavers and graduates are prepared for work in broad occupational domains as well as for adequately dealing with rapid changes in work and in the labour market (Hövels, Thomas, Eimers & Frietman, 1999; Nijhof & Streumer, 1994).

The qualification structure should fulfil three functions (ACOA, 1996, 1997):

- a a communication function (communication between VET and business and industry);
- b a steering function (steering the output of VET); and
- c an 'ownership' function (the product/output is owned both by VET and by business and industry).

In this context, Hövels et al. (1999) indicate that the qualification structure should be the communication tool that enhances a responsive VET system, or a VET system that has the capacity to adequately react to and anticipate developments in its environment, especially those in the labour market. In this sense, the qualification structure is seen as a communication tool, with which the match between education and the labour market can be improved.

The qualification structure can also be perceived as the junction between the world of education and the world of work. The expected added value of the qualification structure, however, exceeds the improvement in the qualitative match between education and the labour market. The wider policy aims and expectations with regard to the qualification structure encompass (Blokhuys & Van Zolingen, 1997; Hövels et al., 1999; *Memorie van Toelichting*, 1994; MOCW, 1996):

- an improved match with occupational practice, due to a clearly articulated demand for qualifications. VET programmes have to provide occupational qualifications that are recognised within the occupational fields. An important precondition for realising this is increased transparency in programmes, certificates and diplomas;
- reduction of unqualified, early school-leavers. This can be achieved by: a) easing the transition from the school-based to the work-based pathway, allowing those participants that prefer to work to continue their training; b) stimulating the attainment of partial qualifications; and c) easing the return to VET by enabling flexible and by-enrolment;
- increasing the possibilities for horizontal and vertical transfer, including the option of creating more effective pathways. Assuming that it is possible to compare and exchange modules, learning pathways could be shortened by giving participants exemptions; e.g. participants from other VET programmes or adult education programmes;
- increasing the accessibility of VET by shortening learning pathways and/or assessment and recognition of prior learning and experience.

The qualification structure forms an instrumental structure in relation to these policy aims. The extent to which aims like transparency, assessment and recognition of prior learning and experience, improved transfer and reduced dropout will be realised depends on the operationalisation of the qualification structure and its implementation. What is also important here is the way in which the actors involved will take up their legal responsibilities. As depicted in figure 4.1, the model underpinning the development and implementation of the qualification structure is one of 'chained responsibilities' or 'chain management'. Within this chain both sides of industry are responsible for developing the

occupational profiles that form the input for the qualification structure. This provides business and industry with the opportunity to articulate its qualification demands, i.e. to articulate the competencies school-leavers and graduates have to possess if they want to work in a particular occupation (in the near future). The development and maintenance of the qualification structure is the responsibility of the lead bodies. The actual design and implementation of the VET programmes are part of the competence of the community colleges.

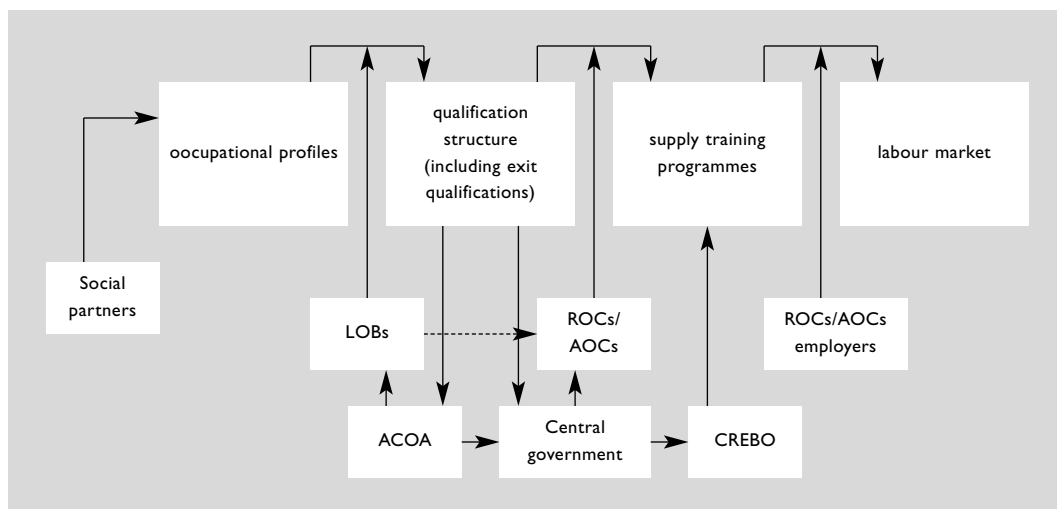


Figure 4.1: Actor system around national qualification structure

Although one can speak of a chain or chained responsibility, each actor has its own responsibility. In this context, three substructures or subsystems can be distinguished (Geerligs, 1999): an information structure, a regulatory or steering structure, and a production structure. The information structure encompasses the two sides of industry and the lead bodies. The goal of this structure is to articulate the external demand for qualification (based on, among other things, knowledge of developments in occupations, labour organisations, technology and the economy) and to translate this demand into attainment targets. The tasks and responsibilities of the lead bodies, including the minimum standards for the products they develop, are stipulated in the Act. This is not the case for the tasks of the two sides of industry and the occupational profiles they have to develop. The regulatory or steering structure should create the conditions for a well-functioning VET system, e.g. by selecting the qualifications to be financed publicly and by quality assurance (Geerligs, 1999). The regulatory structure encompasses central government, the Advisory Committee Education-Labour (ACOA) and the Central Register of Vocational Qualifications (CREBO). Central government determines which programmes or qualifications will be funded and also determines the attainment targets. The legally-based task of the ACOA consists of giving advice to the lead bodies with regard to the attainment targets and their contribution to the overall qualification structure. CREBO is primarily a registration tool, although government considers it as an instrument to enhance the transparency of the qualification structure by providing an up-to-date overview of programme provision (*Memorie van Toelichting*, 1994, p.75). According to the Act, the community colleges – or the production structure – have to ensure:

- equity of accessibility to VET, in particular for disadvantaged groups;

- effectiveness of the pathways, e.g. through good attuning of adult education programmes and VET programmes;
- provision of educational and vocational guidance;
- improvement in success rates, including the match between the training provided and developments in the labour market.

Various actors have to take up these different tasks and responsibilities in close cooperation in order to make the intended chain more than just a set of loose links. However, as indicated, this is a chain with several actors, various adaptation and translation processes and interdependent relationships. The upper arrows in figure 4.1 specify that the subsequent phases in the development process contain 'conversion processes', during which necessary choices have to be made.

The philosophy underpinning the Act is based on the principle that as little as possible should be regulated through legislation. Institutions should function in a system with a maximum of autonomy and self-regulation. In accordance with this philosophy, the lead bodies possess the legal competence to formulate attainment targets and qualifications in dialogue with business and industry. Similarly, the community colleges have a legal competence in translating the qualifications into teaching and learning programmes. The policy assumption with regard to this is that possible inadequacies in the 'royal approach' will be tackled within the chain itself. In designing the Act, it was acknowledged that bottlenecks occurred in the existing procedure for developing qualifications: e.g. the substantial differences in specification and structure of different qualifications. This acknowledgement, however, has not resulted in a rethinking of the 'royal approach' itself (Brandsma, Thuring-van der Linden & Schuit-van der Linden, 1996). The policy-makers have opted for continuity and for the preservation of the cooperation and shared reference framework between education and labour market representatives, which have been built up in the past (*Memorie van Toelichting*, 1994, p.40). This is a choice based on the idea that one could learn from the strengths and weaknesses of the procedure that was used in the past.

### 4.3 Characteristics of the qualification structure

Within the qualification structure, four levels and two pathways are distinguished. The four qualification levels are:

- level 1 or the assistant training programmes, which prepare for simple, operational jobs (duration 6 to 12 months);
- level 2 or the basic vocational training programmes, which prepare for operational functions (duration 2 to 3 years; this level is considered to be the necessary 'basic qualification');
- level 3 or the vocational training programmes, which prepare for independent performance within an occupation (duration 2 to 4 years);
- level 4 or the middle management training or specialist study programmes. The middle management study programmes prepare for independent performance within a broad occupational field (duration 3 to 4 years) and give access to non-university tertiary education. The specialist study programmes also prepare for independent performance within an occupation, though with the emphasis on the specialisation. The duration is 1 to 2 years and enrolment in these study programmes is only possible after having obtained a related qualification at level 3 or 4.

The distinction between levels is based on the following criteria:

- responsibility: the extent to which the actions of a worker have consequences for the performance of actions of other workers;
- complexity: the extent to which actions to be undertaken are based on standard and nonstandard procedures;
- transfer: the extent to which professional acts (and the underlying knowledge and skills) can be applied in other professional situations as well.

In addition to the distinction between the four levels, there is also a distinction between two pathways. This new distinction in learning pathways abolishes the one formerly existing between full-time school-based VET and the apprenticeship system. The two learning pathways, which can respectively be typified as school-based (*BOL*) and work-based (*BBL*) mainly concern the amount of time spent on workplace training within companies. With regard to the school-based pathway, the Act stipulates that at least 20% – up to a maximum of 59% – of total curricular time has to be spent on workplace learning. For the apprenticeship pathway, the minimum amount of time to be spent on workplace training is 60%. Another distinction concerns the position of the students within companies. Students taking the work-based pathway, in most cases, will be employees and receive a labour contract. Students taking the school-driven pathway remain students and will be supernumerary to the regular staff. In principle, qualifications or diplomas can be obtained through both pathways.

At the outset of the development process, a so-called ‘format qualification structure’ was developed, containing the standards for the qualification structure and the qualifications. These criteria, which were reinforced by the Minister early in 1994, include the above-mentioned criteria for the distinction between levels and further stipulate that:

- qualifications should be evidently derived from an occupational profile that has been legitimated by the two sides of industry;
- qualifications should be evidently situated at in one of the four qualification levels distinguished;
- qualifications should prepare for occupational performance as well as for the continuation of further training and societal and cultural participation.

Based on the criteria in this format, the lead bodies started the development of ‘partial qualification frameworks’ or preliminary qualification structures, including separate qualifications. In general, these preliminary structures were based on occupational profiles already existing. As an important reason for this approach, it was indicated that in the late 1980s and early 1990s extensive occupational analysis was conducted for the renewed curricula that were implemented in 1993. The occupational profiles stemming from this analysis were considered as being not yet obsolete. In addition to this, the attainment targets of these renewed curricula were formulated in such a way that adaptations, if needed, could be realised easily within the instruction process itself. Finally, time pressure played a role: time available for developing the new qualification structure was so short that an extensive occupational analysis was not considered feasible. The fully elaborated and grounded qualification documents had to be submitted to the ACOA for advice before March 1, 1996. The lead bodies therefore chose to verify the existing occupational profiles through renewed legitimisation by the two sides of industry in their COBs (Education-Business Committees).

The construction of preliminary structures has been added to the development process, in order to have a possibility of steering this process and of monitoring the intended transparency of the structure, as well as the intended broadness and sustainability of the qualifications. The expectation was that the



lead bodies would start with the global elaboration of these partial structures, including the qualifications and the horizontal and vertical connections between qualifications, before they started the development of the final documents. The preliminary qualification structures were assessed by the Reverification of the Qualification Structure Committee, the predecessor of the ACOA. The conclusion of this Committee was that, with regard to elements like the broadness of the qualifications and coordination between the lead bodies, improvements were necessary. However, this did not result in adjustments or interventions in the process. The committee was of the opinion that the necessary improvements could be realised in parallel with the development of the qualification documents.

#### 4.4 **Evaluation of the qualification structure**

##### 4.4.1 Evaluation criteria: operationalisation and analysis

The central question concerning the evaluation of the qualification structure is:

*“Does the legally created system of actors involved in developing the qualification structure work sufficiently effectively and efficiently in the context of the match between education and the demand from the labour market and society?”*

First of all, it has to be said that the new qualification structure was implemented eighteen months later, in August 1997, with the exception of the level 1 programmes, which started in August 1996. The implication was that the first school-leavers to successfully complete the 4-year programmes at levels 3 and 4 would not enter the labour market until mid-2001. Until that moment, it was those from the previous long programmes that would enter the labour market. In this respect, the evaluation of both the Act and the qualification structure has a formative character. This has consequences for the effect measures to be applied.

The concepts of effectiveness and efficiency can be defined as follows. Effectiveness can be defined as the relation between the intended and realised output. Efficiency can be defined in terms of suitability or the realisation of output with the least costs. What is problematic in this evaluation, however, is the addition of the word ‘sufficiently’, as well as the choice of measures to be applied: strong measures or criteria are preferable. A strong measure of the effectiveness of the qualification structure (from the perspective of the qualitative match with the labour market) would be the external rate of success of the programmes. However, apart from the fact that qualification from the renewed programmes is still limited, this measure as such is problematic. Qualified school-leavers from a particular programme do not necessarily end up in the occupational domain for which they have been trained – an effect that will become more marked as time passes. Whether or not a suitable job has been found will increasingly be influenced by intervening factors.

Similar problems occur with regard to the concept of ‘sufficiently efficiently’. One could investigate how much funding was used for the development of the qualifications (Brandsma, 1993). The subsequent question of whether this was too much, or whether one could have done with less is, however, difficult to answer. This assumes the existence of a standard that is not available. If one were to attempt to develop such a standard, different stakeholders would advocate rather different criteria. Another possible indicator concerns the factor time, that is: time needed for the subsequent development of occupational profiles, qualifications and qualification documents and for responsiveness. It is not desirable that the time span needed for this development process be too long. Again, it is difficult to

determine in an objective way what 'too long' is. Efficiency, however, can also be related to the intended characteristics of the qualification structure and the element of 'chained responsibility'. The intended characteristics concern the transparency of the qualification structure, the broadness and sustainability of the qualifications and the creation of effective learning pathways with good opportunities for horizontal and vertical transfer. If the intention is to increase the transparency of qualifications and diplomas within the qualification structure, it may be considered inefficient if there is a substantial overlap between different qualifications and partial qualifications. Likewise, it is not very efficient if a student who wants to switch a level or pathway is confronted with unnecessary repetitions, due to a lack of coherence and commonality (comparability and exchangeability of partial qualifications, exemptions) (Geerligs, 1999).

With regard to 'chained responsibility', this involves in particular the issues of fine-tuning and coordination. This chain is defined here as cooperation between different actors that have their own responsibility in the subsequent stages of the development process, but also a shared responsibility for the final product. This chained responsibility has to result in a transparent and responsive qualification structure that is demand-driven. At the same time, this qualification structure must allow for the incorporation of new developments (also across sectors of economic activity), without unnecessary redundancies (Frietman et al., 1999; Geerligs, 1999; Hövels et al., 1999).

In the end, the crucial question is what is meant by a 'sufficient qualitative match with labour market demand', a question that cannot be answered exactly – not least given the various factors that influence that match, like the distorting effect of the functioning of the labour market itself. The quality of that match also depends on the extent to which the 'labour market' is capable of clearly articulating its demand for qualifications. It is, in particular, this articulation and communication function that is ascribed to the qualification structure. Given this, 'soft measures' have to be satisfactory; in this case, the assessment of the stakeholders involved. This means that for the time being, the functioning of the new system (of actors) will be assessed in the context of the intended articulation and communication function and in the context of its contribution to the strengthening of the match between education and the labour market, in terms of interaction and cooperation.

#### 4.4.2 Research questions and research design

Policy expectations with regard to the qualification structure are comprehensive and broadly formulated. At the same time, it is too early for a final and decisive answer to the core evaluation question. This chapter therefore focuses on the question of whether the qualification structure can meet the expectations formulated. More specifically, the following questions will be addressed:

- how is the process of developing and maintaining the qualification structure proceeding and what bottlenecks are occurring?
- to what extent does the qualification structure meet policy and other expectations?
- to what extent does the system of actors inhibit or stimulate the realisation of the aims of the qualification structure?

The study was designed in such a way that as many different relevant actors as possible could be interviewed. In selecting lead bodies, their dispersion over sectors of economic activity was taken into account. For the agricultural sector and for the health care and social service sector, there is actually only one lead body for each sector. Within the economic/administrative sector, only a limited number

of lead bodies are operating, one of which was selected. In particular, within the technical sector there are various bodies, including some focusing on so-called 'consumer-based technical occupations'. Taking into account the diversity within the sector, three bodies were selected. In the next step, units or departments within the community colleges and agricultural colleges were selected, taking into account regional dispersion.

In total, 49 interviews were held with the different actors, with a duration varying between one-and-a-half and three hours.

- interviews with 27 representatives of the colleges (from 7 community colleges and 2 agricultural colleges). In these interviews, the focus was on the way in which the educational institutions were implementing the qualification structure, the problems they had encountered in its implementation, the extent to which they were trying to 'regionalise' the study programmes offered (within the set framework) and the extent to which the qualification structure met expectations (from the perspective of the institutions, the students and regional companies);
- interviews with representatives of 6 lead bodies. In these interviews the development and maintenance of the qualification structure, the coordination between lead bodies and the incorporation of new developments in the qualification structure were the main topics. In addition to this, the problems encountered during the development process were addressed, as well as the extent to which the qualification structure was meeting expectations;
- interviews with 11 representatives of branch organisations. In these interviews the main focus was the involvement of branch representatives in the development and maintenance of the qualification structure and the extent to which the qualification structure was meeting the organisations' expectations (including the match with their qualification demand);
- interviews with representatives from the Ministry of Education, in which mainly data were collected concerning the background of policy development and aims;
- an interview with *COLO*, in which information was collected with regard to the various innovation and improvement projects aimed at strengthening the qualification structure. Such projects have run since the first version of the qualification structure was implemented in 1997;
- an interview with the Agricultural Colleges Council (stakeholders' organisation of the agricultural colleges), in which particular attention was paid to their qualification structure 2000+;
- an interview with the *ACOA*, in which data were collected about their role and tasks in the whole process.

## 4.5 Results

### 4.5.1 Development, maintenance and renewal of the qualification structure

#### **FROM OCCUPATIONAL PROFILES TOWARDS QUALIFICATION DOCUMENTS**

The starting point for developing the qualification structure was the existing occupational profiles. Compiling occupational profiles is the exclusive responsibility of the two sides of industry. This makes the lead bodies dependent on the quality of the input that is delivered and they therefore try to steer this process, in particular during the translation of the occupational profiles into qualifications and qualification documents. They develop proposals for this translation process, which are extensively

discussed in their Education-Business Committees, before being legitimised. The same holds for the adaptations and renewals that stem from the maintenance of the qualification structure.

Since the implementation of the qualification structure, various adaptations and alterations have been carried through. Various parties have signalled the need for adaptations. Smaller alterations, like the reformulation of attainment targets and qualifications, have been implemented, often based on signals from community colleges.

In addition, the lead bodies use various sources for updating qualifications, which can vary from official requests from the branches involved, regular contacts with branch organisations or with individual companies. Changes in legislation and outcomes of the labour market or innovation monitors can also have a great impact. Adaptations based on these signals can range from updating a qualification to the renewal of a cluster of qualifications or a vertical qualification column (encompassing the four levels distinguished).

Another source of innovation for the qualification structure are branch organisations or professional associations that traditionally do not take part in a lead body, but take the initiative themselves to have their training needs included in the qualification structure. Their main motives for launching these initiatives concern both recognition (give the training a place in the official qualification structure) and public funding. Finally, the coordination and cooperation between lead bodies is also a source of innovation for the qualification structure. Fine-tuning their own qualification structure with that of other lead bodies has not been a top priority, mainly due to lack of time. While renewing the qualification structure and the development of completely new qualifications, attempts have been made to strengthen coordination between the lead bodies, stimulated by *COLO*. The intention is that each lead body starting the development of a new qualification will announce this intention, in order to avoid unnecessary duplication.

#### **PROBLEMS IN THE DEVELOPMENT, MAINTENANCE AND INNOVATION OF THE QUALIFICATION STRUCTURE**

Various problems have occurred in developing, maintaining and renewing the qualification structure. Firstly, the lack of a univocal format for the occupational profiles and an unambiguous procedure for developing profiles was detected. Nothing has been laid down legally with regard to the responsibilities of the two sides of industry, the way in which occupational profiles should be developed (e.g.: validity, reliability, viability) or the specification of the output (descriptive framework, minimum quality standards). Standardisation is lacking, making it impossible to compare occupational profiles, which has consequences for the subsequent development process. At the same time, this lack of standardisation means that occupational profiles and their subsequent translation into qualifications receive insufficient support within the particular branch, since consultation has been limited to a small group of representatives. Secondly, the heterogeneity of the sectors and branches of economic activity represented within the lead bodies poses a problem. While developing the qualification structure, lead bodies have very often worked with various Education-Business Committees, representing specific branches within sectors of economic activity. The organisation of these committees has largely contributed to the emergence of an inefficient overlap in the qualification structure; the promotion of the particular interests of branches has strengthened this. Even though attempts have been made to reach consensus in the process of translating occupational profiles into qualifications, the interests of the different stakeholders have dominated the outcomes of this process. Stressing the distinctive features of the branches, including the occupations and jobs that can be distinguished, has been too much in the forefront, even if this concerns only relatively 'minor' occupations. Thirdly, the 'format

qualification structure' appeared to be less univocal than expected. The application of the format allows for differences in interpretation, which result in it not being possible to compare qualifications in terms of their structure, size and formulation. This, in turn, inhibits the reduction of redundancy by means of exchange and mutual use of particular modules.

In addition to this, the allocation of levels to qualifications also poses problems. The criteria for the distinction between levels, like responsibility, complexity, and transfer, appear to be open to different interpretations as well. At the same time, it appears that not all partial qualifications within a qualification can be allocated the same level. It can be concluded that attempts have been made to develop universally valid criteria for the distinction between levels, without taking sufficiently into account the fact that such criteria are influenced and moulded by the particular labour organisation and the way in which the work is organised (Oates, 2000).

The conclusion is that the process of translating occupational profiles into qualifications has been rather linear and is dominated by stakeholders' preferences and short-term interests, leading to specific qualifications and redundancy that cannot be compared.

#### 4.5.2 Expectations with regard to the qualification structure

The next question to be dealt with is whether and to what extent the qualification structure meets expectations with regard to the broadness and sustainability of qualifications and the responsiveness and sustainability of the qualification structure. Where broadness and sustainability of the qualifications are concerned, it has to be concluded that expectations have not been met. The qualification structure still contains relatively narrow qualification profiles, which are based on rather specialised job profiles, instead of occupational profiles. The principles of the qualification structure would have been better served if such 'specialisations' had been included as a specialty within a broader qualification. However, as indicated, the tendency towards branch profiling impedes this. Moreover, the intended sustainability of the qualifications has not yet been realised, given that some of the qualifications have to be revised frequently, sometimes annually.

With regard to the intended responsiveness of the qualification structure, several problems have occurred. First, the time span needed for developing qualifications: this ranges from eighteen months to two years from the moment qualification development starts until the moment the qualifications have been decided on by the Minister. The actual time span needed depends on the extensiveness of the occupational analysis that precedes the development of the qualifications. Both the lead bodies and the branch organisations consider this time span too long. All the more so, since between the decision of the Minister and its actual incorporation into the training provision another year goes by, during which the educational institutions can make the necessary preparations for the actual provision of the programmes. From a substantive perspective, the responsiveness of the qualification structure is also still limited. This concerns in particular the incorporation of qualifications that transcend branches or contain elements belonging to different branches. Here again, the attitude of the representatives of branches within lead bodies is a major factor: they are reticent about cooperation and/or exchange. Attempts to develop such branch-transcending qualifications, for instance, for new occupations combining technical and commercial elements, sometimes founder on the short-sighted opinions of branch representatives. They do not want to relinquish 'ownership'. The argument for this concerns the recognition of the qualification within their own branch. An additional problem is the early signalling and incorporation of qualifications developed outside the branches/sectors that are organised in lead

bodies. This is especially the case if it involves qualifications that cover the domain of more than just one lead body, e.g. yacht-building.

The transparency of the qualification structure is not optimal. It can be concluded that the qualification structure as such is a jungle both for students and for companies. This is mainly due to the large number of qualifications, the new and rather meaningless names of new qualifications and the distinction between qualification levels. Concerning this last point, it appears that companies often still use the old terminology of 'single-category schools', 'secondary vocational education' and 'apprenticeship system'. The distinction between levels 1 and 2, on the one hand, and levels 3 and 4, on the other, seems not to be very clear for companies. Conversely, the lead bodies, the branch organisations and the community colleges are of the opinion that the distinction between the two pathways is clear and meaningful to companies. Nevertheless, there are doubts as to whether the two pathways are equivalent (as was intended). These doubts mainly relate to the different types of competences that are acquired through more theoretical versus more practical learning, as well as the fact that the two pathways appear to attract different types of students (SER (Social and Economic Council), 1997). It is a real concern that the transition from one pathway to the other and from one qualification level to another will be not that easy in practice.

### 4.5.3 Impeding factors

It can be concluded that the expectations with regard to the qualification structure have not been realised – at least, not yet. This raises the question of which factors within the system of actors, or within the 'chained responsibility', are impeding the realisation of the aims envisaged by the qualification structure. In the previous sections, some of these factors have already been indicated. On the one hand, it is a matter of lack of standardisation or insufficient standardisation of products and processes. On the other hand, it concerns the tendency towards the promotion of branch-specific interests and branch profiling. The development of qualifications is not led by the articulation of the qualification need, but by preferences and habits (Geerligs, 1999).

These are shortcomings in the information system. An additional impediment with regard to this information system is the mechanism for the funding of the lead bodies. Funding is based primarily on the number of qualifications to be maintained. This results easily in improper discussions with regard to funding. It also establishes obstacles to cooperation and coordination.

In the context of the production system, the community colleges identify a couple of bottlenecks in the qualification structure. Firstly, there are a steadily growing number of qualifications. The resulting differentiation and fragmentation of the qualification structure means that it is not transparent. An additional risk for the colleges is that the student population gets dispersed ("evaporates") over many small and thus costly programmes. A second bottleneck relates to differences in the qualification documents. The formulation of qualifications is either too vague or too broad, which leads to a variety of interpretations, which might result in undesirable differences between colleges. It is especially the departments within colleges that deal directly with the various lead bodies that detect substantial differences in the products. This forms an impediment to the development of a coherent training offer. As regards the steering system, it has to be concluded that the steering mechanisms that have been built into the Act are not functioning satisfactorily. The task of the ACOA is to assess the qualification documents. The Act, however, does not provide for an assessment of the whole qualification structure. The present assessment by the ACOA is a two-step process: the first step relates to the issue of

whether a qualification should be included in the qualification structure (see also chapter 5), while the second focuses on the qualification document as such. Advice that obsolete qualifications should be run down is hardly ever given by the ACOA. Testing of the qualification documents is predominantly marginal. A second steering mechanism concerns funding. The proposals for including qualifications in public funding are made by the lead bodies (or their Education-Business Committees). The main considerations for submitting a qualification for public funding are labour market need and continuity. None of the lead bodies has ever encountered rejection of a qualification it has submitted. This raises the question of whether the government has built too much on self-regulation and whether the emphasis has not shifted too much towards input justification, where the two sides of industry have a great degree of autonomy. At the same time, it has to be concluded that the steering system does not contain incentives to ensure that different stakeholders indeed accept their shared responsibility. The Act puts the links in the process and production chain in position, but does not sufficiently stimulate cooperation between and shared responsibility of these links. This holds for both the links within the information system as such and those within and between the information and the production systems respectively. The relation between lead bodies and colleges is characterised by a considerable degree of scepticism with regard to mutual responsibilities, competences and expertise. A truly 'chained responsibility' will only emerge if cooperation and coordination are based on mutual trust and respect (Geerligs, 1999; OECD, 2001).

#### 4.6 Conclusions and discussion

After five years, the question is whether and to what extent the aims of the Act have been realised. In general, it has to be concluded that the present system of actors does not meet expectations sufficiently. The Act did not intend to steer the actors in such a way; the system should work on the basis of self-regulation. In part, this seems to be a matter of time: the different actors need time to grow into the new roles that the Act has assigned to them. If the qualification structure is considered, it has to be concluded that it was implemented in 1997 without a pilot period. The qualification structure has thus only been in operation for about four-and-a-half years. The bottlenecks that are being encountered can be seen as 'growing pains', which can be corrected by the experiences gained. It is too early to draw definitive and decisive conclusions with regard to its effectiveness in relation to its aims. The same holds for the improvement of the match between education and the labour market. Given the present assessment of this match by business and industry, the conclusion would be that it is not optimal (B&A-Group, 2001; Heijke, Borghans & Smits, 2001). However, these judgements have to be interpreted cautiously, being primarily based on the old study programmes. The labour market has little experience of school-leavers from the level 3 and 4 programmes. However, these signals that the qualitative match is still not optimal also seem in part to indicate that the qualifications and study programmes are considered insufficiently job or company-specific. Heijke et al. (2001) (see also chapter 5) raise the question of whether attempts were made to include as much as possible in the qualification structure, without considering the fundamental choice: which qualifications should be part of initial and which of post-initial VET.

Notwithstanding this remark, it can be concluded that major problems remain. Within the process of developing and maintaining the qualification structure, the design and creation of a transparent structure with broad and sustainable qualifications has not been realised. Since the development of the qualification structure started, the number of qualifications has grown from about 200 to 700. The

qualifications do not comply with the requirements of broadness and sustainability. The inclusion of qualifications that transcend or cut across branches is insufficient. The main causes for these shortcomings are:

- 1 the vertical branch-wise organisation of the underpinning justification structure and the subsequent vertical segregation;
- 2 the tendency of branch organisations to emphasise their own interests in terms of qualifications and specialisation needs within the qualification structure;
- 3 the mechanisms for funding lead bodies on the basis of qualifications;
- 4 the lack of standardisation of products and procedures;
- 5 the one-to-one translation of occupational profiles into qualifications, even when this concerns rather narrow profiles.

The result is a rather hybrid qualification structure, which contains broad qualifications and narrow, specialist profiles alongside each other. Even though, progress has been made in the area of cooperation and coordination between lead bodies, the present qualification structure is characterised by redundancy, and a lack of transparency and responsiveness.

In the departmental view of five years of experience of the Act (*Koers BVE, MOCW, 2000*), these problems are acknowledged, but diagnosis differs. On the one hand, it is concluded that the educational institutions are mainly responsible for a one-to-one translation of the qualifications into study programmes. On the other, more room for a regional adaptation of qualifications is advocated. In this context, it is proposed to distinguish between a national and a regional part in the qualifications. The colleges would then become responsible for determining the content of the regional part, in close consultation with regional companies. Neither the 'royal approach' nor the feasibility of 'chained responsibility' is brought up for discussion in the departmental view, which is rather curious. Where one-to-one translation is concerned, it has to be said that the qualification structure was and is intended as the tool for the articulation of the labour market demand. If it appears that there is no need for a projection of qualifications on training programmes, but rather for programmes in which different qualifications and partial qualifications are combined, one can conclude that something is wrong with this articulation function.

The more fundamental question behind this is whether one can expect the two sides of industry to be capable of delivering relevant and strategic information. This question has, however, not been addressed. It is rather distressing in this context, to conclude that, as long ago as 1990, the Rauwenhoff Commission indicated in its advice that information from occupational practice has a rather short life span. According to this Commission the significance of using such information should be questioned. In this context, it proposed giving the colleges the responsibility for determining the content of study programmes, in close consultation with regional business and industry. It expected that shorter 'feedback loops' between education and companies at a regional level would give a better guarantee of a good qualitative match between VET and the labour market. At that time, the government did not adopt the proposal. It seems that this proposal has been brought back to life.

Apparently, policy-makers are struggling with the balance between different interests (companies, participants, society) and with the balance between centralised steering and decentralised responsibilities (Nijhof & Stijnen, 2001). In their reactions to the policy intentions of 'the Minister of Education, the Social and Economic Council (2000) and the Education Council (2001) warn against too much regionalisation, which might undermine the national validity of qualifications. The Stuurgroep



Evaluatie WEB (Steering Committee for the Evaluation of the Act) indicated in its synthesis report (2001) that there were sufficient options for regional adaptation without changing the present dispersion over a national and a regional part. These options were: a better use of the 20% of total curriculum time, which is presently already left to the discretion of the colleges, an optimal use of training within companies and the signals received through this channel, and a more global definition of qualifications and attainment targets in terms of competencies.

With regard to the problem of cooperation and coordination between lead bodies, the Steering Committee proposed reducing the number of lead bodies from 21 to 4, each one covering one sector<sup>15</sup>. Even then, close coordination between these four organisations was considered necessary, given the blurring of boundaries between sectors. If the coordination problem remained, it was proposed installing one central organisation that would be responsible for the development and maintenance of the qualification structure, similar to the situation in Germany (*Bundesinstitut für Berufsbildung (BiBB)*) and England (Qualifications and Curriculum Authority (QCA)). Nijhof and Stijnen (2001) indicate that through these, Germany and England at least have one central institution for channelling societal demand.

This raises the question of what experiences are with more centralised standards development in Germany and England and what lessons could be learned. England developed a National Qualifications Framework (NQF) in 1998-1999, following the recommendations of the well-known Dearing Review<sup>16</sup>. Although this five-level framework builds on the previous framework for the National Vocational Qualifications (NVQs), it also encompasses the general academic qualifications and vocationally-related qualifications (being the General National Vocational Qualifications (GNVQs)). The development of the NQF is challenged by two problems. On the one hand, the NQF is not the only qualifications framework; others exist alongside it, their scope and impact depending on the organisation that issues these qualification frameworks. On the other hand, the NQF does not only contain NVQs (estimated to amount 870 in January 2000), but also non-NVQ vocational/occupational qualifications (estimated at about 1700 in January 2000), given that the dispersion of existing NVQs over the five levels and over sectors is uneven. In addition to that, an unknown number of vocational qualifications exist outside the NQF, which were developed at a sectoral or regional level and will probably never be submitted for inclusion in the NQF. In order to be included in the NQF, a vocational qualification must comply with national standards. Designing these national standards (on the basis of occupational analysis and consultation with the sector or branch) is the responsibility of the National Training Organisations (NTO), of which there are presently about 65. The NTOs submit a proposal for drafting new national standards to the QCA. Only after formal approval can the NTOs start the occupational analysis. The draft national standards are once more judged by the QCA and once approved, the development of vocational qualifications or NVQs can start. Development of NVQs (or other recognised vocational qualifications) is undertaken by the so-called awarding bodies in cooperation with the NTOs, a process in which an NTO can cooperate with different awarding bodies and vice versa, which can result in the development of similar and overlapping qualifications. In an attempt to further rationalise the system,

15 This would mean a lead body for the technical sector, the economic sector, the agro-business sector and one for the health and social care sector.

16 Sir Ron Dearing's Review of Vocational Qualifications for 16-19 year-olds.

the government encouraged mergers between different awarding bodies in the late 1990s. Although this has resulted in the emergence of three main bodies, each focusing on a particular segment of the education market, there are still 67 of these bodies, many of which cover small and specialist occupational areas. It is these awarding bodies in particular that keep developing their own qualification frameworks and qualifications (Oates, 2000; Westerhuis, 2001). This might be the result of a particular funding trait of the system. Educational institutions that want to include a particular qualification in their training offer, have to 'buy' this qualification. Whereas at national level, in the context of the NQF, QCA policies are aimed at a reduction in the number of qualifications, this funding trait can be an incentive for awarding bodies to develop qualifications outside the NQF.

The German VET system is associated mostly with the dual system. However, the dual apprenticeship system covers only part of the German VET system, albeit a significant part<sup>17</sup>. In addition to the dual system, there are school-based VET programmes, which fall under the jurisdiction of the federal states. There is no clear picture of the number of school-based qualifications. The dual qualifications are regulated at federal level and consist of approximately 80% work-based training and 20% school-based. All dual VET programmes last between three and three-and-a-half years (with a few exceptions of 2-year programmes). The development or renewal of dual training programmes is a rather complicated process, which starts with preliminary research by the *BiBB*, investigating developments in occupational practice. Only when the federal government, the governments of the federal states and the two sides of industry decide, on the basis of this preliminary research, that it is necessary to develop or renew a study programme does the actual development of a qualification start. The federal government appoints experts who have been nominated by the two sides of industry and are responsible for drafting the standards for the work-based part of the qualification. The governments of the federal states appoint experts who are responsible for drafting the standards for the school-based part of the qualification. Once these standards have been developed, they have to be aligned and submitted to both sides of industry for approval. Given the complexity of this development process and the fact that in the period between 1969 (when the Vocational Training Act was implemented) and 1995 only two new qualifications were added to those in existence in 1969, criticism of the dual system arose during the early 1990s. The dual system was declared to be in crisis (Heidegger & Rauner, 1996; Sauter & Schmidt, 2002). This crisis led to two 'reforms'. Firstly, in 1996, after a remarkably short preparation period of 6 months, four new qualifications in the ICT sector were agreed. In the whole period of 1996-2000, 39 new qualifications were developed, while the overall number of qualifications did not increase. Secondly, government, the two sides of industry and the *BiBB* agreed on shorter development procedures. When only the content of a qualification needs revision, this should not take longer than one year, whereas in the case of a more fundamental revision, including the legally anchored outline of the qualification, this should take no longer than two years. Even though, in the context of the discussion about the future of the dual system, modularisation and a further level of differentiation were advocated, the main actors in the VET field held on to a one-level initial VET system, based on the concept of '*Berufsprinzip*' (Reuling, 1998). Proposals for developing qualifications at a lower level for so-called low knowledge-based occupations, which could also cater for the 10 to 15% of any age cohort that does not obtain a vocational qualification, were discarded. In particular, the trade unions feared

17 About two-thirds of all young people in the age group 16-19 opt for training in the dual system, of whom 91% are trained in fewer than 100 of the 348 recognised training occupations (Sauter & Schmidt, 2002).

that such lower level qualifications might threaten labour market perspectives and, in the long run, the employability of those taking such qualifications. Likewise, proposals for modularisation, allowing for step-by-step acquisition of partial qualifications, were discarded, since these were seen as a threat to the *Berufsprinzip*. It is said that the present system, certainly after procedures were speeded up, is flexible enough. The standards for the qualifications laid down in legal regulations are minimum standards that provide sufficient scope for training companies to add their particular requirements and to train in the latest technologies. More attention is now given to procedures for early recognition of relevant developments in the labour market and qualification demand and their impact on VET. Nevertheless, the highly institutionalised procedure for the development and renewal of vocational qualifications has its drawbacks: if parties cannot reach agreement, nothing happens. In the case of completely new occupations or occupational sectors, it is difficult to start the development process.

Looking at the English and German experiences, it can be concluded that, to a certain extent, similar problems are being encountered (Brandsma, 2001). In England, the system is less centralised and standardised than one would think at first glance. Apart from particular problems related to NVQs concerning the narrowness, attractiveness<sup>18</sup> and assessment of the qualifications, it can be concluded that the English qualification system is facing a lack of transparency and a lack of incentives to stimulate coordination and cooperation to reach greater transparency. One could say that the market-oriented incentives that have been installed in the system lead to the opposite of what was intended. Quality and sustainability of qualifications has not been realised; the same holds for the transparency of the qualification framework as such. Although the qualifications as such should be competence-oriented, based on 'industry standards', in practice, this can easily lead to deriving occupational competence from company standards instead and to rather narrowly defined qualifications.

The German '*Berufsprinzip*' guarantees that young people obtain a broad qualification that provides the foundation for occupational expertise and further development. A major problem remains the rigidity and slowness of the whole developmental process, which is partly due to the need to reach consensus. The process as such and the involvement of different powerful stakeholders can easily result in lack of interest. Skill formation systems such as the German, English and Dutch ones have to balance between public and private interests, and between centralised power and decentralised autonomy.

## References

- ACOA (1996). *De ontwikkeling van de kwalificatiestructuur voor het secundair beroepsonderwijs: een tussenstand*. 's-Hertogenbosch: ACOA.
- ACOA (1997). *Verder aan het werk met de WEB*. 's-Hertogenbosch: ACOA.
- ACVIB (1983). *Verslag van werkzaamheden 2 en 3*. 's-Gravenhage: Adviescommissie voor de voortgang van het industriebeleid (commissie Wagner).

18 The term 'attractiveness' is used in VET to refer to the problem of dropouts and demotivated students. It is felt that if VET pedagogy and learning environment were to be more attractive, more students would obtain a basic qualification and not fall out of the system. (Critics point to attempts to make education 'fun' and to cater too much to tastes of today's young people, creating a soft generation.)

- Adviescommissie Onderwijs-Arbeid (Commissie Rauwenhoff) (1990). *Onderwijs-arbeidsmarkt: naar een werkzaam traject*. Alphen aan den Rijn: Samsom/Tjeenk Willink.
- B&A Groep (2001). *Rapportage: Evaluatie van de WEB voor de sectoren metaalbewerking en metaalektro. Resultaten van de telefonische enquête*. 's-Gravenhage: B&A Groep Beleidsonderzoek & Advies bv.
- Blokhuis, F. & Zolingen, F. van (1997). *De kern te pakken*. 's-Hertogenbosch: CINOP.
- Brandsma, J. (1993). *Beroepsprofiel- en leerplanontwikkeling; de koninklijke weg als naïef traject? Een vergelijkende studie naar methoden voor de ontwikkeling van beroeps(opleidings)profielen*. Enschede: Universiteit Twente (proefschrift).
- Brandsma, J. (2001). *Leren kwalificeren. De aansluiting van beroepsonderwijs en educatie op de maatschappelijke vraag (themaport 1a)*. Zoetermeer: Stuurgroep Evaluatie WEB.
- Brandsma, T.F., Thuring-van der Linden, A.M.L. & Schuit-van der Linden, C. (1996). *Implementatie van de tweede generatie eindtermen in het MBO: voortgang en vernieuwing*. Enschede: OCTO.
- Convenant Rauwenhoff (1991). *Samen werken aan beroepsonderwijs. Convenant tussen overheid en centrale organisaties van werkgevers en werknemers inzake Rauwenhoff, 1991-1994*. 's-Gravenhage.
- Frietman, J., Busse, G. & Thomas, E. (1999). *Strategisch Actieplan Transparantie Kwalificatiestructuur*. Nijmegen: ITS.
- Geerligts, J.W.G. (1999). *Design of Responsive Vocational Education and Training. A Reconstruction of a Systems Change in Agricultural Education*. Delft: Eburon.
- Green, A., Wolf, A. & Leney, T. (1999). *Convergence and divergence in European education and training systems*. University of London: Bedford Way Papers.
- Heidigger, G. & Rauner, F. (1996). *Vocational education in need of reform*. (Expert opinion, ordered by the Ministry of Labour, Health and Social Affairs of North Rhine-Westphalia). Bremen: Institut Technik und Bildung.
- Heijke, H., Borghans, L. & Smits, W. (2001). *De WEB tussen vraag en aanbod (themaport 1b)*. Zoetermeer: Stuurgroep Evaluatie WEB.
- Hövels, B., Thomas, E., Eimers, T. & Frietman, J. (1999). *Branchedoorsnijdende en -overstijgende competentieclusters: op zoek naar nieuwe kwalificaties*. Nijmegen: ITS.
- Memorie van Toelichting (1994). *Memorie van Toelichting. Bepalingen met betrekking tot de educatie en het beroepsonderwijs (Wet Educatie en Beroepsonderwijs)*. Kamerstuk 23778, no. 3. 's-Gravenhage: Sdu Uitgeverij.
- MOCW (1996). *De Wet educatie en beroepsonderwijs in hoofdlijnen*. 's-Gravenhage: Sdu Servicecentrum.
- MOCW (2000). *Koers BVE. Perspectief voor het middelbaar beroepsonderwijs en de volwasseneneducatie*. 's-Gravenhage: Sdu Servicecentrum.
- MOW (1993a). *Blijven leren: ontwikkelingsperspectief voor de volwasseneneducatie in brede zin*. Zoetermeer: Ministerie van Onderwijs en Wetenschappen.
- MOW (1993b). *Kernpuntennotitie Wet Educatie en Beroepsonderwijs*. Zoetermeer: Ministerie van Onderwijs en Wetenschappen.
- Nieuwenhuis, L.F.M. (1993). Beroepsgerichte leerplanontwikkeling. In: W.J. Nijhof, H.A.M. Franssen, W.Th.J.G. Hoeben & R.G.M. Wolbert (red.). *Handboek curriculum. Modellen, theorieën, technologieën*. Amsterdam/Lisse: Swets & Zeitlinger, pp. 191-210.
- Nijhof, W.J., Heikkinen, A. & Nieuwenhuis, L.F.M. (2002). *Shaping flexibility in Vocational Education and Training*. Dordrecht/Boston/London: Kluwer Academic Publishers.
- Nijhof, W.J. & Stijnen, S. (2001). De formatieve evaluatie van de Wet Educatie en Beroepsonderwijs. *Pedagogische Studiën*, 78(6), pp. 357-363.
- Nijhof, W.J. & J.N. Streumer (1994). *Verbreed Beroepsonderwijs*. De Lier: Academisch Boeken Centrum.

- Oates T. (2000). *An analysis of the implementation of levels frameworks in the English education and training system 1986 to 1999*. London: Qualification and Curriculum Authority.
- OECD (1996). *Lifelong learning for all*. Paris: OECD.
- OECD (2000). *From initial education to working life. Making transitions work*. Paris: OECD.
- OECD (2001). *Cities and Regions in the New Learning Economy*. Paris: OECD.
- OOVO (1984). *Op weg naar een gezamenlijke verantwoordelijkheid. Eindrapport van het Open Overleg over de voorstellen van de commissie Wagner inzake het beroepsonderwijs*. 's-Gravenhage: Staatsuitgeverij.
- Reuling, J. (1998). The German "Berufsprinzip" as a model for regulating training content and qualification standards. In: Nijhof, W.J. & Streumer, J.N. (eds.). *Key Qualifications in Work and Education*, pp. 63-77. Dordrecht/Boston/London: Kluwer Academic Publishers.
- Sauter, E. & Schmidt, H. (2002). *Training Standards in Germany. The development of new vocational education and training (VET) standards (state-recognised training occupations)*. Bonn: BiBB.
- SER (1997). *Versterking secundair beroepsonderwijs*. 's-Gravenhage: SER, publicatienummer 34, 2 juli 1997.
- Stuurgroep Evaluatie WEB (2001). *De WEB: naar eenvoud en overzicht. Eindrapport van de Stuurgroep Evaluatie WEB*. Zoetermeer: Stuurgroep Evaluatie WEB.
- Westerhuis, A. (2001). *European Structures of Qualification Levels. Reports on recent developments in Germany, Spain, France, the Netherlands, and in the United Kingdom (England and Wales)*. Luxembourg: Office for Official Publications of the European Communities.



## 5 Promoting the macro-efficiency of vocational education?

LEX BORGHANS & HANS HEIJKE

*The Dutch Adult and Vocational Education Act (WEB) states that vocational education courses should fill a social need, should provide qualified school-leavers and graduates with favourable perspectives in the labour market, while their contents should both contribute to the students' general education and provide them with sustained and broad occupational qualifications. The procedural aspects of this Act therefore pay explicit attention to macro-efficiency. This chapter presents a theoretical framework for the concept of macro-efficiency. The core element of this framework is the idea that the main objective of the Act cannot be to strive for the fulfilment of all the demands made by employers, but rather that decisions regarding the organisation of vocational education should always be based on a rational process of finding a useful balance between the available options. On the basis of this assumption, we shall discuss the way in which the ACOA (Advisory Body Education-Labour Market) functions in practice. Our main conclusions are that current legislation contains too many incentives for setting up narrow, specialist courses, and that schools should be given much greater responsibility for their study programmes. However, these institutions would then have to be accountable for the effects of their policies as a whole, rather than for a large number of decisions, as is the case at the moment. To be able to make this evaluation and to support the policies of the lead bodies and community colleges, we need a clear view of the objectives of vocational education and reliable labour market data.*

### 5.1 Introduction

The Adult and Vocational Education Act regulates secondary vocational education and training (VET) and adult education in the Netherlands. The purpose of this Act is to ensure that vocational education courses fill a social need. Qualified school-leavers and graduates are provided with favourable perspectives in the labour market and the curriculum content both contributes to the students' general education and gives them sustained and broad occupational qualifications. However, the needs of society cannot be specified once and for all: the labour market is not static. Partly as a result of influential reports drafted by the *Commissie Wagner* (Wagner Commission) (1981) and the *Commissie Rauwenhoff* (Rauwenhoff Commission) (1990), legislation has refrained from fixing the content of vocational education in law. Instead, procedures have been developed to guarantee that the contents of study programmes can be continuously adapted and fine-tuned to developments in society.

Secondary vocational education is expected to achieve a number of explicit objectives, aimed at the immediate productivity of those involved. This broad objective is an important reason for government involvement. If the training of skilled workers were to be left to business and industry, there would be insufficient attention paid to the personal development of those involved or to their long-term development. The legislative procedures therefore explicitly concentrate on the *macro-efficiency* of the system, and any proposals for changes will be tested against the objectives formulated in the Act.

Five years have passed since the Act became effective in 1996. We can now ask the question whether this new legal framework meets the objectives, and hence whether the procedures in the Act, on the one hand ensure that vocational education adequately follows changes in the labour market and, on the other, provide young people with an education that is both useful for their careers as a whole and contributes to their personal development in areas that cannot directly be translated into labour market success<sup>19</sup>.

In order to determine how the Act functions in practice, this chapter first presents a theoretical framework outlining the concept of macro-efficiency. The core element of this conceptual framework is the idea that the purpose of the Act cannot be to strive for the fulfilment of all the demands made by employers, but that decisions regarding the organisation of vocational education should always be based on a rational process of striking a balance between the available options: The “attainment targets” of a study programme cannot be separated from the capabilities of the students who enter the system; a truly broad education can only be achieved if the system is explicitly aware of the fact that students will continue to learn even after they have left school, etc.

The economic impact of the objectives of the Act serves as a frame of reference. We will present the control mechanisms that the Act intends to use to ensure that vocational education meets the needs of society and of the labour market. The major organisations involved in this control model are the lead bodies on vocational education (n=21), the ACOA (Advisory Body Education-Labour Market), and the community colleges. In three separate sections, we discuss the roles of these organisations within the control model. After this discussion of the way in which the Act functions in practice, this chapter will finish with a number of conclusions and recommendations. Our main conclusions are that current legislation contains too many incentives for setting up narrow, specialised study programmes. In addition, schools should be given much greater responsibility for their study programmes. However, these institutions would then have to be accountable for the effects of their policies as a whole, rather than for a large number of specific decisions, as is the case at the moment. To be able to make this evaluation and to support the policies of the lead bodies and the community colleges, we need a clear view of the objectives of vocational education and reliable labour market data.

19 In this chapter, we will answer this question for vocational education, ignoring adult education. We will base this on our contribution to a broad evaluation study that covered more themes than merely the macro-effectiveness of the WEB (Heijke, Borghans, and Smits, 2001). This chapter was published earlier in Dutch: Borghans and Heijke (2001).



## 5.2 **Effective vocational education: some theoretical considerations**

“Vocational education is aimed at theoretical and practical preparation for the pursuance of an occupation, but also promotes the general education and personal development of participants and contributes to their social performance” (WEB, Art. 1.2.1, first section). As a result of the knowledge and experience acquired by participants, education provides an added value, making it possible for individuals to expand the capabilities that they have. From the perspective of the individual, taking part in education will therefore have a certain value, both with regard to the labour market perspectives generated, and to that person’s social functioning. Depending on one’s initial capabilities, learning power and personal interests, investing a certain amount of time in a certain type of education will be able to improve one’s career. As the surplus value of each additional year of education will be less than the previous one, and education requires time, effort and money – not to mention a loss of income – individuals will reach a point, after a number of years of education, when the returns from even more education no longer compensate for the costs involved. From the perspective of the individual, a certain investment in education will then be optimal, considering his or her career as a whole, both in and outside the labour market<sup>20</sup>.

In principle, the returns from education are greatest when it takes place as early in an individual’s life as possible. After all, this maximises the number of years that one can avail oneself of the knowledge and skills. Technological innovation, skill obsolescence, as well as the potentially valuable interaction between working and learning, constitute arguments for deviating from this traditional pattern of life. Thanks to the valuable interaction between working and learning, it may be useful – in particular at the end of the period of initial education – to introduce a transition, in which the study programme contains a decreasing number of scholastic elements, and learning takes place increasingly through work experience. Knowledge obsolescence will lead to patterns of lifelong learning, in order to keep the knowledge that one possesses up to date<sup>21</sup>.

The value of education is not only dependent on the individual choices made. In our society, which has a far-reaching division of labour, we can distinguish a large number of occupational tasks. Only an adequate distribution of workers across these occupations enables society as a whole to make optimal use of the capabilities and interests of its individual members. It is by making sure that individuals can avail themselves of the education required to meet a wide variety of needs in the labour market that macro-efficiency of education can be achieved<sup>22</sup>.

The task to be achieved by education in this respect is illustrated in Figure 5.1. The left-hand side of this figure shows the distribution of the diversity of students before they enter the education system; this diversity relates both to their capabilities and their interests. The other side of the figure shows the distribution of diversity of society’s needs. This distribution can be regarded not only as diversities of level, but also of subject matter of the activities covered by the occupation. In actual fact, the distribution is a multidimensional one, rather than a one-dimensional situation as shown in the figure.

20 This is the core idea behind the human capital theory, as developed by Schultz (1961), Becker (1964), and Mincer (1974).

21 Ben-Porath (1967), Rosen (1976) and Weiss (1986) discuss the optimal positioning of learning activities in a person’s lifecycle.

22 The importance of a successful allocation of people across jobs was first described in detail by Roy (1951), and later by Sattinger (1993).

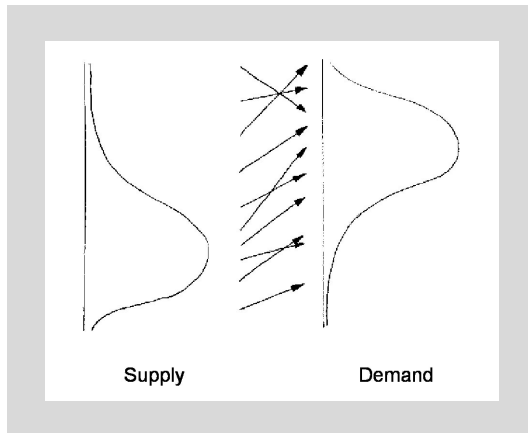


Figure 5.1: Students' capabilities (supply), learning process and society's needs (demand)

The changes with regard to the position of an individual are the result of a learning process. The arrows in the figure represent learning. This may be within the framework of study programmes, but individuals also expand their capabilities by means of life experience in general and work experience in particular. Learning purely from experience is free, but more specific types of learning will involve certain costs. These may be the direct costs of education, as well as loss of income, for example because a company allows an employee to carry out tasks in which he or she cannot yet be very productive, but which enable that employee to gain experience (see Killingsworth, 1982).

In principle, it is therefore possible to adapt supply to demand to a great extent. However, the greater the adaptations, the higher the costs will be. The optimal acquisition of knowledge and skills is determined, on the one hand, by the value of particular knowledge and skills for the labour market and the individual concerned, and on the other, by the initial capabilities that people have and their possibilities to adapt these by means of education.

If there is a discrepancy between the demand from employers and the supply of qualifications from education, this may have two causes. It may mean either that education is not fully able to optimally develop the available capabilities in the population, or that employers have expectations that education – given the limitations mentioned – cannot or does not want to meet. Conversely, not all shortcomings in the match between education and the labour market need result in discrepancies between supply and demand. If little is invested in the capabilities of a particular group of individuals, and employers offer these individuals low-paid jobs without many expectations of their potential, supply and demand may be balanced without their full potential being realised. In such a case, one speaks of a low-skill equilibrium (Finegold & Soskice, 1988).

Optimising investments in education, however, does not only mean that the best investment is sought for each individual. Education could take everyone to point A, as shown in Figure 5.2a. It is the diversity of capabilities that people have that is of great importance for a proper functioning of the labour market. After all, the high level of productivity in our western society is largely the result of specialisation and the division of tasks. Macro-efficiency therefore requires an adequate distribution of the available supply of students, according to the needs of the labour market. This is shown in Figure 5.2b. Education is successful in macro-efficient terms if all needs are met. However, to be efficient also requires that those individuals are led to a particular occupation for whom the distance is smallest. In other words, the total sum of distances in knowledge and skills to be bridged by education must be as

small as possible. Depending on the situation in the labour market and the interests and capabilities of the students, the latter will have to choose the type of education, level of education and learning pathway that suits them best.

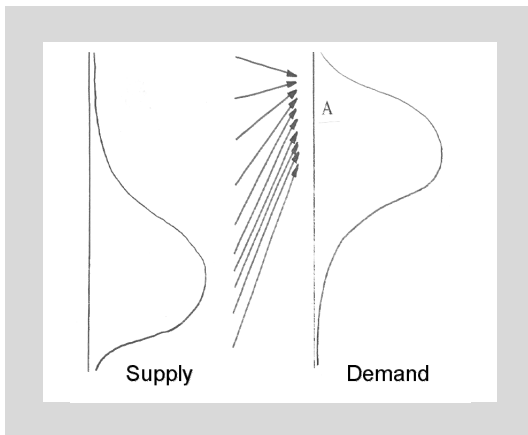


Figure 5.2a: One-sided educational objective

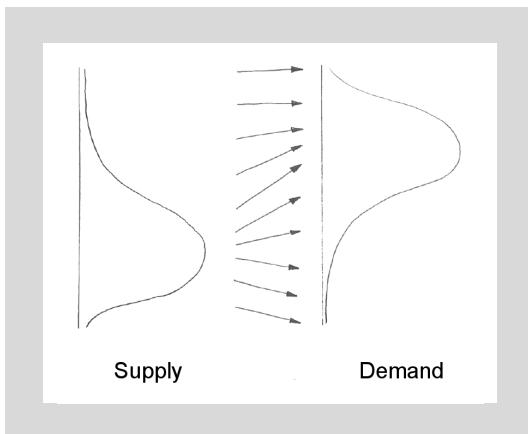


Figure 5.2b: Multifaceted educational objective

Clearly, social demand is subject to change. Technological changes, shifts in consumption patterns, and changing international competitiveness may have a serious impact on the distribution of the capabilities required. Education will have to adapt to this. As the exact composition of the demand will never be known, and this demand changes over time, education will not only have to ensure that everyone is guided to the most suitable location, but also that this is done in a way that guarantees a sufficient degree of flexibility to be able to adapt in time to any changes in the labour market. Broader study programmes, overlapping capabilities, and adaptation skills may promote such flexibility.

The broadness of a study programme refers to the diversity of jobs for which school-leavers and graduates are sufficiently qualified in order to function acceptably at their level. Broadness is then a labour market criterion, rather than a criterion based on the contents of the curriculum, which refers

to the diversity of topics offered. A broad study programme renders school-leavers and graduates less dependent on specific segments of the labour market, thus reducing the risks relating to developments in demand, and also to labour market uncertainty<sup>23</sup>. For students who have not yet decided what to do, a broad education that covers occupations within their field of interest may be of great value. For students who know exactly what they want, the value of this option is limited. From the demand side, such alternatives are of great value in markets that are subject to considerable fluctuations. In particular, if market developments are relatively independent of one another, the combination of a number of target occupations within a qualification has its advantages. For occupations with a fairly constant demand, the value of such an option would be less (see Heijke & Borghans, 1998).

This advantage of reduced risks is offset by the costs of a broader study programme. To provide access to a wider range of study programmes, the curriculum will need to deal with a greater number of issues. This means that the costs involved or the time required to complete the programme will increase, or that the study programme prepares its school-leavers and graduates less specifically for various occupations. An important aspect here is the degree to which the combination of jobs or occupations creates such costs. This is determined by the didactic options available to merge the study programmes for two different occupations. These options for combinations are obvious in the case of overlapping subqualifications or curriculum components. However, there may also be advantages to be gained from changing the structure of the curriculum.

The optimal broadness of a study programme is therefore determined, on the one hand, by the need to reduce risks and, on the other, by the possibility of achieving such a broadening in didactic terms. Both aspects may carry a different weight for each individual, and hence it is conceivable that broader programmes and specialist programmes exist side by side within a single occupational domain. From the macro-efficiency point of view, it may also be useful to have both a broad programme and a specialist programme for specific occupations within the same group of jobs. After all, uncertainty on the demand side will seldom imply that there is no longer any demand for individuals who are qualified for a certain job, only that demand for this job will fluctuate. Giving a limited group of participants a broader qualification may therefore cover a large part of the labour market risk, while enabling other participants to complete a simpler or cheaper education (Borghans & De Grip, 1999).

To achieve macro-efficiency in education, one always needs to take various considerations into account. These cannot merely be the requirements of employers, but should also consider the role different students with their individual capabilities and interests may play in this process. Education cannot deliver ready-made specialists, who need no further training during their careers, but choices need to be made with regard to what needs to be dealt with in the study programmes and what students should learn later. It cannot be determined a priori which occupation(s) a study programme should focus on, but a decision should be taken on the basis of subject-specific considerations as to the didactic possibilities of broadening a programme, and the desirability of widening the occupational domain of a study programme.

23 Dothan and Williams (1981) therefore speak of education as an option.

### 5.3 The control model

To evaluate such macro-efficiency considerations, the Act contains control mechanisms that should guarantee that vocational education provides the best possible match with society's needs and the labour market, and offers students opportunities for personal development and broad professional qualification. These are presented in their interrelationship in Figure 5.3.

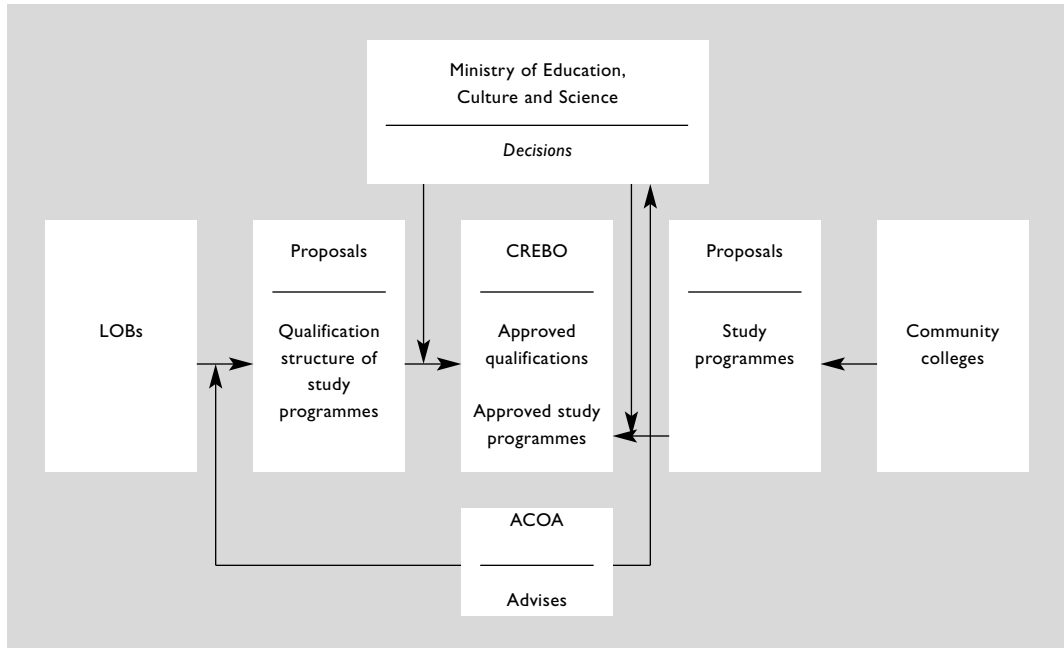


Figure 5.3: The control model for the match between vocational education on the one hand and society's needs and the labour market on the other

The lead bodies have more than one task within this control model. They are, first of all, responsible for the development and maintenance of the qualification structure of their trade or sector. This qualification structure determines which study programmes can be distinguished and what the contents of the study programmes should be. Decisions are based on occupational profiles, set up by the two sides of industry in the trade or occupational field concerned. Before the first of June every year, the lead bodies need to submit a proposal to the Minister of Education, specifying the attainment targets, the structure of these targets, their division into subtargets, their level (assistant, basic occupational, vocational, or specialist study programme), the learning pathways, and the occupation for which they prepare. Each proposal must be accompanied by a recommendation by the ACOA, stating that the proposed attainment targets contribute to the creation of a qualification structure that matches supply to society's needs, also in the light of labour market perspectives for school-leavers and graduates. The proposal should also take into account the link with *VMBO* (Preparatory Vocational Education) on the one hand, and with *HBO* (Higher Professional Education) on the other. This should become evident from consultations with the educational fields concerned. In addition, the proposals should pay attention to the efficient and effective deployment of public means and any relevant developments

within the international context. Although this is in principle a test with respect to content, the emphasis in practice is increasingly on formalities. There is a growing interest in finding out whether all aspects have been taken into account, without an evaluation of the contents of the lead bodies' proposals. On the basis of these proposals, the Minister will decide before September 1 on the attainment targets and the pathways of the new vocational education programme for the following study year.

In addition to these tasks relating to the qualification structure, the lead bodies are responsible for ensuring a sufficient number of apprenticeship places within companies and for monitoring the quality of these places. Within this context, the lead bodies also have the task of advising the educational institutions.

The fact that a study programme has been included in the qualification structure does not mean that every institute has to offer it. The community colleges may submit proposals for the study programmes they wish to offer. The proposals that are submitted need to be accompanied by proof of the programme's macro-efficiency and the availability of a sufficient number of apprenticeships. After the Minister's approval, the programme is entered in the *CREBO* (Central Register of Vocational Qualifications). These programmes are eligible for government funding. Decisions regarding funding are taken by the Minister, with due consideration to (1) society's need for this programme, and looking at the available offer by institutions that do not receive government funding, (2) the labour market perspectives of school-leavers and graduates, and (3) the degree to which the content of the programme contributes to sustainable and broad occupational qualifications.

In addition to giving advice on the proposed attainment targets, it is the task of the *ACOA* to assess the efficiency of the proposals for vocational education programmes, considering the full extent and the distribution across the field of vocational education. If a programme fails to meet the efficiency criterion, the Minister may withhold its entitlement to funding or withdraw it in the case of existing programmes. He may decide to consult the *ACOA*. The same applies to the Minister's decision regarding the type of learning pathways for a particular qualification.

#### 5.4 **Qualification development: the role of lead bodies**

In our theoretical considerations, we have stated that shifts and innovations in the structure of a sector, in the relationship with technological and organisational changes in production processes, bring graduates from vocational education institutes face to face with the obsolescence of their knowledge during their careers and mobility to occupations outside their own domain. The uncertainty of these developments makes it impossible to anticipate fully in vocational education. In addition, the duration of study programmes is too short for students to acquire all the required knowledge and skills, and competencies that are lacking can often be acquired more efficiently during their later careers. It is therefore justifiable for the *ACOA*, in order to decide whether a proposed vocational education programme is eligible for government funding, to demand that its content contributes to sustainable and broad occupational qualifications (Art. 2.1.1).

The education plans drafted by the lead bodies and set down in so-called attainment target documents are based on occupational profiles. To this end, the lead bodies complete an extensive investigation of the content of a particular occupation and use this to analyse the subqualifications that need to be included in a study programme that targets this occupation. This approach fails to do sufficient justice to two essential issues. Firstly, the starting point of the analysis is a particular occupation or group of

occupations. This leaves unanswered the question of whether or not the study programme should address a wider group of occupations. Secondly, this approach avoids the issue of those aspects that can best be learned at school, versus those that can also be learned later during an individual's career. This means that no strategic choice is made as to what should be done during the initial phase, and what in the post-initial. It is true that sectors and their national bodies, as well as educational institutes, are paying more and more attention to these issues and trying to find their position, but what is lacking is a uniform view of the way in which this should be fitted into their traditional methodology. To promote the development of such a view, the Minister of Education should take the initiative. It is therefore disappointing to see that a recent policy memorandum on the vocational and adult education sector, called *Koers BVE (Ministerie van OC&W (Ministry of Education), 2000)*, says nothing about the complementary relationship between initial and post-initial vocational education.

The lead bodies are set up along the lines of the economic sectors. This places them in a good position to detect any developments within the sector concerned that are relevant to those who work there, at an early stage and from an expert's point of view. These can then be translated into attainment targets for the study programmes. However, the sector-oriented structure contains a number of elements that may in themselves be obstacles to the creation of study programmes that are both broad and sustainable for professional careers and social functioning.

The sector-based subdivision of the lead bodies may prove an impediment to an adequate response to developments that transcend the sector and change the interrelationships. These include, for example, developments relating to ICT, multimedia, and quality of services. The lead bodies undoubtedly pay attention to these developments and will try to ensure that they are reflected in the content of the relevant qualification profiles. However, they need not all do this in the same way and may evaluate the developments differently. In particular, it is difficult to adequately and consistently include in the qualification structure any developments in occupational practice that lead to shifts or a blurring of sector limits. This is not only a technical matter; the sectors have interests in this field that the lead bodies cannot always ignore. By cooperating and matching their qualifications, or even developing common ones, such problems can be avoided. In practice, this only took place initially on a limited scale. Today, there are various collaborative structures<sup>24</sup>. The *ACOA*, however, includes no compulsion to do so.

A similar problem concerns the place allocated in the qualification structure to attainment targets, which constitute the key to mobility towards occupations outside a school-leaver or graduate's own sector, the ability to follow new developments within one's occupation in the long term, and one's social functioning. Insofar as this requires knowledge that transcends the sector, the question is again to what extent the lead bodies translate these in a uniform way into attainment targets for their respective sectors. That this problem is an obvious one is apparent from the initiative taken by the *COLO* (Umbrella Organisation for Expertise Centres Vocational Education-Labour Market) to set up a development plan to achieve a uniform implementation of core competencies (*COLO*, 2000a). Concretisation of the curriculum with respect to personal development and social functioning, however, still appears to be in a vacuum. This should be accomplished by the lead bodies when proposals for study programmes are drafted. As business and industry has such a great influence on the

<sup>24</sup> See Brandsma (2001). Cases mentioned included the co-operation between *SH&M*, *SBW*, *SVS* and *Bouwradius*, between *VEV*, *Intechnum*, *SOM* and *VAPRO* (with regard to cross-sectoral qualification in technology) and between *VEV*, *ECABO* and *GOC* (with regard to ICT qualifications).

decision-making process in the lead bodies, this aspect often appears to receive too little attention in practice. The ACOA then tests the document that outlines the attainment targets, but this test primarily concerns the formal aspects. If the lead bodies indicate that they have also dealt with elements which are not directly related to labour market performance in the attainment targets, then the ACOA will refrain from any further content-related tests. There is a tendency to include elements in the curriculum that look at first like general content, while they have been included primarily because of their importance for job performance: an example is foreign languages. If personal development and social functioning were regarded equally as seriously by the WEB as professional training, then the concretisation of these elements would be better guaranteed.

The lead bodies compile reports on the labour market perspectives of study programmes and the availability of practical training places. These reports are collected by the COLO. In itself, it is, of course, a favourable development that national organisations make their knowledge widely available to interested parties, in particular to the community colleges. Having taken note of the respective reports, there is serious doubt as to the consistency and uniform quality of the labour market perspectives presented<sup>25</sup>. The forecasts are often of a rather arithmetic nature, leaving too little room for the dynamics of the labour market and any substitution or adjustment processes. This, in turn, raises questions with regard to the use of these data by the lead bodies themselves, for the purpose of finding support for the labour market relevance of the qualification structure that they themselves have developed. There is a latent danger that they will allow their views to be led too much by short-term developments within their own domain, paying insufficient attention to external developments. This makes it difficult to determine what the implications of future technological innovations and labour market fluctuations will be, in particular outside one's own domain, for the qualification profile to be set up. The COLO does, however, try to create greater uniformity in the setup of labour market forecasts, by developing a common format. Nevertheless, it will be some time before we can speak of uniform recognition and interpretation of common developments. And we are not even talking about taking interdependencies between the developments of occupations and sectors into account.

The strong institutional anchoring of the role of lead bodies may constitute an obstacle to the identification of and subsequent response to new developments in the labour market, which occur in sectors that are not yet organised as such and cannot join the lead bodies. Here too, we can refer to ICT developments, as well as to the cleaning sector. There is therefore a danger that blanks will emerge in the qualification structure, in particular in areas where shifts and innovations in labour market demand complement the qualification structure.

The lead bodies are related to sectors that have certain interests in the field of vocational education. It is, of course, good that these sectors ensure that topical information is made available, on the basis of which both broad and sustainable qualifications can be developed, which provide students with favourable perspectives in the labour market. These may be study programmes that were previously funded privately from within the sector. By including these study programmes in the qualification structure, government-funded institutions can now also offer such programmes. As a result, the costs of education will be shifted from the sector to government. This will generally meet with approval from the sectors, especially if the lead bodies allow them to continue to have a great influence on the study programme. After all, it is they who specify the occupational profiles and the attainment targets of the programme that are derived from these profiles. They may also be strongly involved in certification and

25 Cf. COLO, 2000b.



examination, and hence indirectly determine the choice of teaching materials, which may even be supplied by them. Lastly, they have an influence through the provision and quality control of practical training places. These influences may be contrary to society's needs to provide students with the best possible preparation for their careers. This is the case in particular if the coverage of occupational profiles is artificially restricted and the qualifications derived from them do not have a broad and sustainable character. The influences of the sectors listed above may also affect the social importance of free competition in markets. In discussions with lead bodies, this sometimes inordinate influence of the sectors is already being mentioned occasionally.

It is also possible that sectors sometimes deliberately keep study programmes outside the qualification structure. This is the case, for example, if sectors have a distinct education policy that supports the development of knowledge and career policies within the sector. By providing the study programmes themselves, they are able to select students and withhold knowledge from companies that are not members of the trade organisation. This constitutes a strategic competitive interest on the part of the sector. For vocational education, such 'monopolisation of knowledge' will lead to a situation in which certain qualifications are not included in the qualification structure, even though it would be socially desirable. We do not know, however, to what extent this is the case. It may also be more likely for courses at post-secondary VET level. Whatever the case may be, the Act offers no instruments to either detect or prevent such situations.

In conclusion, we can state that the role assigned by the Act to the lead bodies in the creation of the qualification structure is a good starting point for the development of vocational education programmes that match the needs of the various sectors in the labour market. The sector-oriented organisation of the lead bodies does, however, carry a number of potential dangers with regard to the effectiveness of the control mechanism created by the Act for the development of the qualification structure. Insofar as these dangers manifest themselves, they obstruct the creation of a qualification structure that ensures broad and sustainable qualification for occupational careers, as intended by the Act. The control mechanism can all too easily lead to great differentiation in study programmes and insufficient attention to new developments in the labour market that transcend the boundaries of the sector, key skills (or core competencies), and social development of the individual.

## 5.5 Macro-efficiency advice: The role of the ACOA

The Act is based on the idea that the concretisation of the study programme must be a dynamic process that continuously responds adequately to developments in society. For this reason, a large part of the responsibility for the concretisation of education has been assigned to such organisations as the lead bodies and the community colleges. Students also have great freedom of choice. As there is the possibility that the social interests of parties who make educational choices can be overlooked, the legislators decided that some control of the efficiency of education was necessary, in order to prevent unwanted situations (*Ministerie van OC&W, 1996a*). This test is generally referred to by the term 'macro-efficiency'. The concretisation and development of the concept of macro-efficiency can best be illustrated by the decisions granting permission to introduce new study programmes (newly offered courses) at institutes.

In July 1996, the Ministry of Education (*Ministerie van OC&W, 1996b*) announced that colleges would have to have their new courses tested for macro-efficiency. "The registration of new courses will be subject to great reserve. Any applications for new courses must always be elaborately motivated and

well documented.” *Ministerie van OC&W* (1996b) stated the criteria for macro-efficiency as: “(1) the availability of a sufficient number of practical training places, (2) the labour market perspectives of school-leavers and graduates”. At the time of application, institutes need to supply the material for the macro-efficiency test themselves (the onus of proof lying with them). This means that a community college that wishes to register a new study programme must “supply sufficient objective and reliable data that proves the efficiency of the study programme, in relation to existing programmes at other institutes.” It is interesting to note that implicitly it is not only the labour market perspectives as such, but also the relationship with other colleges that appear to be a criterion. Institutes may prove their macro-efficiency on the basis of such information as advice from the lead bodies concerned, statements from important players in the regional and/or national labour market, studies in the field of regional, national or international labour market developments. The vague description of the labour market criterion suggests that the Ministry did not have a clear idea of the concretisation of the concept of macro-efficiency. This list also fails to make it clear how to regard the relationship with programmes offered by other institutes. Colleges also seem to have problems supporting the macro-efficiency of the study programmes that they want to offer and submit a wide variety of documentation to the Ministry. All colleges make new applications, varying from 3 to 958 study programmes. A comparison between the applications submitted and the forecasts for labour market developments, as published by the ROA (Research Centre for Education and the Labour Market) of Maastricht University (ROA, 1995), proves that there is no relationship between the development of the labour market perspectives of the various study programmes and the applications submitted. Institutes tend to apply for approval for study programmes that they lost at the time of the transition from the old situation to the CREBO, and for programmes that they had always wanted to have. A number of parties involved have indicated that the catering industry in particular is very popular with many community colleges, for reasons that have nothing to do with labour market developments.

In its allocation policy, the Ministry gives priority in particular to so-called complementary programmes. These are programmes that fit well into the existing range of a college – especially if the programme concerned is a complementary learning pathway or complementary to a programme in the same column offered at a lower level. The implicit reason for this is that the Ministry wishes to promote both the work-based pathway and, in particular, the school-based pathway. In addition to the formal demand criterion of favourable labour market perspectives, the supply criterion – providing for students who have a great chance of dropping out – also appears to be an important one. The prevailing practice at the Ministry therefore seems to be more in line with the framework outlined in Section 5.1 than the formal criteria stated in the legislation.

On the basis of the results from the first round, the ACOA (1996) concluded that the self-regulating power of the institutes was still insufficient and it therefore argued in favour of a stock-taking study to determine which data were needed for a proper macro-efficiency test. Commissioned by the ACOA, Romijn (1997) compiled a report on a procedure that could be used to test macro-efficiency. Again, there appears to be no clear picture of what exactly is meant by macro-efficiency. The recommendations made in the report are more concerned with the procedure, while, with respect to the concept of labour market relevance, remarks do not go beyond phrases like “*the study programme shall contribute to the reduction of an existing or expected shortage of workers in certain occupational groups*”.

The ACOA (1998a) indicated that colleges should indeed focus more on the demand for education in students than on the needs of the labour market, and that the distribution of study programmes is largely historically determined and not related to the demand in the labour market. To steer this in the

right direction, we need more and, in particular, more detailed data (ACOA, 1998b). Many applications for new study programmes appear to come from the hotel and catering and tourist sectors. The ACOA (1999b) published a special test report on macro-efficiency. It remarked that “it can be observed that education in the tourist and leisure sector enjoys a healthy interest from students. The committee therefore finds a certain discrepancy between the demand in the labour market and the number of students who wish to be trained in the tourist and leisure sector.” The applications made by eight colleges were scrutinised in the light of the national figures available. In its report, the committee stated, however, that the available data constituted an inadequate basis for an unequivocal conclusion on labour market perspectives. It is difficult to compare the various sources and they seem to contradict one another. The assessment of the applications made by the colleges and the advice to the Minister were therefore determined largely by formal criteria. It is not the question whether there is a demand in the labour market, but the way in which the community college supports its application. That is the decisive factor for the advice.

The tendency to emphasise formal criteria in the procedure also appeared from the new 1999 guideline, in which the Minister indicated that the community college must prove that it has assessed the labour market situation, by referring to data from the relevant national organisation, by referring to ROA data, or in some other way. The conclusion drawn by the college on the basis of the data has not been tested.” In 2000, the Vocational and Adult Education Council therefore reported to its members that the macro-efficiency test could be omitted. “According to the Minister, the community colleges are eminently capable of determining, on the basis of information available on the labour market, perspectives for school-leavers and graduates and the availability of practical training places in the region, which qualifications from the qualification structure they want to offer.”

At the beginning of 1999, the ACOA (1999a) concluded that there was “no restraint whatsoever in institutes to apply for and/or to want to offer new programmes”. It therefore advised supplying proper data on developments in the labour market, an adequate test afterwards by means of surveys among school-leavers and better rules to provide the community colleges and agricultural colleges with relevant information. The ACOA (1999a) therefore observed that it was not possible to achieve quantitative control within the legal framework.

Discussions have shown that in policy circles the failed attempts to implement a macro-efficiency policy have led to the conclusion that this can perhaps better be left to the colleges themselves. There is, however, little reason to believe that such a policy will lead to a desirable distribution of study programmes. Box (1991) shows that, even in higher education, such freedom for education institutes leads to a differentiation of programmes that fails to acknowledge what can be regarded as socially optimal. Reports by the ACO (Advisory Committee for Study Programmes in Higher Education (1995) also show that it is difficult to keep differentiation in higher education under control.

One may also ask whether the instruments of the Act are suitable to promote macro-efficiency. Firstly, it is remarkable that control of student flows only took place indirectly, by regulating the study programmes offered. In addition, regulations have failed to grasp good criteria with respect to macro-efficiency.

It is striking that the macro-efficiency test focuses strongly on individual study programmes, considering only the demand side of the labour market while ignoring the supply side, and developments in other training colleges in the region apparently not playing any role either. If we follow the logic of the rules, any college could offer a particular course if it had favourable perspectives. Macro-efficiency, however, would require coordination between the programmes. De Heer (1999) states that – because different

colleges can use a variety of sources – the same test would yield a positive result for one college, and a negative one for another. In addition, the macro-efficiency test fails to ask colleges to consider the consequences of a new study programme for its range of programmes as a whole. One study programme might therefore draw in students from another programme, while some students might find that a suitable study programme for them is lacking. It is therefore a natural step to ask colleges to take a close look at their entire range of study programmes. *ACOA* (1999d) indicated that “after three rounds of macro-efficiency tests, qualifications have been narrowed down to such an extent that a fourth round is almost superfluous. But is it? If all colleges are allowed to implement all the qualifications included in the qualification structure in both pathways, then an education marketing plan is very close.”

The *AOC-raad* (Agricultural Training Centre Council) (1998) even indicated the format in which such business plans should be presented. Unfortunately, the form again appears to be more important than the content. Meanwhile, the Minister issued the *Koers BVE* memorandum, in which he indicated that he did indeed intend to give the community colleges more responsibility for the macro-efficiency of the programmes offered.

For more specialised programmes, which one cannot expect every college to offer, national coordination seems appropriate. If several colleges applied for permission to offer a particular programme, for which it is in itself desirable that the number of study places is increased, the *ACOA* could advise the Minister as to the college where such expansion could best be achieved, considering the distribution of programmes offered across the country. At this moment, colleges have the right to offer a programme anywhere they like. This possibility could stand in the way of geographical coordination by the *ACOA*.

## 5.6 **The study programmes offered: the role of community colleges**

Within the framework of the Act, the institutes for vocational education were able to develop into large regional colleges for vocational education. These have become veritable companies, in which a large staff of sometimes more than one thousand employees provide education for many thousands of students. Discussions with the boards of these community colleges have made it clear that they wish to fulfil a social function. They regard themselves as the providers of solutions to the regional educational needs and they are aware of their position as a strategic link in the development and maintenance of human capital in the region. Although they are able to give shape to their mission in their own way, they generally strive for a highly varied range of study programmes, from which students may choose what they think is most suitable and useful for themselves.

Although this development is very valuable in itself, it also hides a number of potential dangers. A situation has been created which can easily lead to more licences for study programmes than necessary being requested and underutilisation of those licences already obtained. This greater focus on the needs of students, companies and colleges may increase the desire for differentiation in study programmes and shift attention from the longer to the shorter term. The result is insufficient attention to the importance of a broad vocational preparation, social development, and the acquisition of key competencies in order to be able to follow future innovations in occupations and to shift to a different occupational domain.

This independent position of the community college as regional producers of education has received too little detailing in the Act. It concentrates on the creation of the qualification structure, the way in which this can be translated into a range of study programmes on offer, and their funding. There is less attention or none at all paid to the way in which the community college should meet the regional education needs among the population, businesses, and institutes, or how education should be organised. The distinct concept of efficiency in the Act, if we consider the concept as a whole and the distribution of programmes offered, appears not to apply to this aspect of the education offered. The training colleges appear to be regarded as the providers of the programmes enclosed in the qualification structure set up by the lead bodies and acknowledged by the authorities. This need not be a problem, because not everything has to be controlled by law. It is possible, however, that the Act – because it fails to specify the independent position of community colleges with regard to student potential – is creating bottlenecks in its attempts to develop this potential optimally. Discussions with community colleges have shown that there are nuances to be made. In the most favourable case, they regard the qualification structure as a point of reference for the development of a range of study programmes that are relevant to the regional labour market. Sometimes, the qualification structure is regarded as less relevant or oppressive, and they only provide an optical relationship with their own offer<sup>26</sup>. The balance in the Act appears to have tipped too far in favour of the creation of the qualification structure.

An important policy instrument to promote the ‘labour market relevance’ of study choices is study and career information. The Act pays hardly any attention to this; it only indicates that providing information on study and career choices is a task of the educational institutes (*WEB*, Art. 8.1.3.). This task includes, in principle, both the provision of information on labour market opportunities and personal guidance of students in the process of choosing a study. It is an understandable choice to leave personal guidance to the colleges, but it is striking that the task of providing information is also entrusted to the colleges. Firstly, providing objective information may be at odds with the interests of a college to attract students. Secondly, good labour market information is not specific to a particular college. Centralising this task of providing information may therefore increase reliability and quality, and reduce costs at the same time. We must add that the Ministry also considers the provision of study and career choice information on developments in the labour market as one of its tasks.

From the discussions that we have had, we can conclude that the personal guidance provided by colleges consists mainly of mapping the personal preferences and capabilities of the students. In practice, colleges appear to hardly ever point students in the direction of alternative study programmes that offer more favourable labour market perspectives. Insofar as the supply of students responds to developments in the labour market, this is therefore largely the result of adjustment behaviour on the part of students and their parents.

Article 8.1.1 of the *WEB* offers colleges the possibility of being selective in their admission of students. This selection option is primarily an instrument to test the students’ aptitude. In practice, however, such an instrument could also be used – intentionally or unintentionally – to find a better balance between supply and demand. As has been mentioned above, however, schools appear not to pursue any explicit policy with regard to the intake of students. They often regard it as their duty to accept anyone

26 In principle, community colleges have the option of specifying 20% of the qualifications independently. In practice – says the *ACOA* – this opportunity is hardly seized.

who applies to study there. It is therefore even conceivable that the selection of students on the basis of their aptitude may be an impediment to a proper matching of supply and demand. This may be the case in particular when demand increases and hence the influx of students grows. After all, additional influx generally consists of students who will be less suitable for the occupation concerned than the “hard core”, while the additional supply also makes strict selection easier.

As a result of the increase in scale that community colleges have undergone, they seem eminently suited to implement an education policy that respects the broader social relevance within the context of available education as a whole. In practice, however, training colleges appear to have to give account of minor decisions, they are strictly bound by the decisions taken by the lead bodies and very much oriented towards the wishes of business and industry. It seems a natural choice to give colleges the responsibility for a balanced offer of study programmes and the contents of these programmes, giving due consideration to the interests of the student population, business and industry, and the need for broad personal development. Such a responsibility should, however, be accompanied by supervision aimed at the policies of colleges as a whole, based on a consistent view with regard to the concept of macro-efficiency.

## 5.7 **Conclusions and recommendations**

Knowing that the labour market is dynamic, and hence that the requirements that vocational education programmes must meet are also changing constantly, the educational requirements have not been laid down in the Act, but legislation provides a framework in which constant adjustments to the programmes offered and their contents may take place, driven by the insight of business and industry, which knows better than any other party in which direction developments are moving. The lead bodies play a crucial role in this process. However, the social relevance of education does not always match the interests of business and industry. As secondary vocational education is largely paid for by the government, government has formulated a number of additional criteria that need to be met by study programmes. These criteria are referred to by the term macro-efficiency.

The present chapter shows, however, that the mechanisms built into the Act constitute an obstacle to the emergence of sufficiently broad study programmes. Because of their sector-oriented structure, the lead bodies are well able to identify developments in their own sector in time, and to translate these adequately into attainment targets for vocational education programmes. The subdivision of the lead bodies into sectors, combined with the inherent conflict of interests, carries with it the potential danger of insufficient attention being given to suprasectoral developments and new developments outside the sector structure. The result is greater differentiation within the qualification structure than is necessary, and vocational education programmes that are not broad enough, and fail to provide adequately sustainable qualifications for occupational performance and social functioning. The balance between what needs to be acquired in initial education and what should be learned during one's occupational career appears to be upset by the great influence of business and industry on the content of study programmes. Greater insistence by lead bodies to meet both the educational needs of students and the labour demand of companies and institutions, may increase this suboptimal differentiation in study programmes.

These potential dangers are countered by the increased cooperation of lead bodies and the *COLO* getting a greater grip on its coordinating task. This development should be stimulated. In particular *COLO*'s coordinating role should be promoted and, if necessary, laid down in the Act. There should also be a greater exchange of information between the lead bodies, a more uniform view of developments in the labour market, what their impact is on vocational education, and how occupational requirements can be translated into attainment targets. These attainment targets of vocational education programmes should be argued more explicitly from the aspects of initial versus post-initial, broadness of the programme, labour market relevance (taking into account any suprasectoral and new developments), key competencies, and opportunities for social development.

Consideration may be given to centralising the responsibility for the submission of qualification structure proposals and assigning this responsibility to a central body. It is important to make sure that such a central body is not an extension of the lead bodies, but is able to act decisively and on its own initiative. This central body should be able to take a balanced decision between the interests of business and industry and the other interests involved in vocational education, in particular those of potential students. The central body should have the opportunity to approach third parties, in particular research institutes, for knowledge and information, which it can use directly, or to give a second opinion regarding the proposals of the lead bodies. This will keep the lead bodies on their toes and help to make sure that the general criteria applying to qualifications are met.

As a result of the scale increase that has taken place among the community colleges, they seem eminently suited to bear the responsibility for an education system which, as a whole, is the best answer to the question of how the capabilities and interests of the available student potential can be developed optimally for sustained labour market participation. In connection with the aforementioned improvements in the development of the qualification structure, it would be an obvious choice to grant the community colleges a greater degree of freedom in their specific concretisation of the qualification structure, on the basis of a more general description of the attainment targets. The more general nature of the attainment target documents will give the community colleges more room for an individual approach to the concretisation of the study programme and its adaptation to new developments.

It goes without saying that community colleges will need to give account of their policies. In the present situation, it is primarily the individual decisions taken by the colleges that are tested. As stated above several times, it would be more appropriate to ask the community colleges to account for their entire policies on the basis of a business plan.

Making explicit a view by the community colleges of the study programmes that they offer is to a certain extent in line with the plans outlined in the recent policy note (*Ministerie van OC&W, 2000*). But according to these plans, the national macro-efficiency test by the *ACOA* with regard to the available study programmes is no longer activated. A test is essential to encourage the lead bodies, *COLO*, or another central body and the community colleges to base their choices on macro-efficiency criteria. The basis for this test would have to be a vision of macro-efficiency which is broader and clearer than what is presently laid down in the Act. As mentioned before, the issue would then be to achieve a proper match between the study programmes offered and not only the labour market but also the development possibilities of the student potential. By adding the second element, the macro-efficiency

test is no longer merely a labour market issue, but become a social issue. Testing the plans made by the lead bodies and the community colleges' business plans for macro-efficiency may then be more within the realm of the Education Council than that of the present ACOA. At any rate, it will be necessary to strengthen the position of the ACOA, in the sense that it can give its judgement with authority, paying optimal attention to the subject-specific aspects of vocational education and less to procedural ones. To be able to do so, it must be capable of mobilising the required expertise, by either acquiring such expertise internally, or obtaining it externally, for example, by consulting research institutes.

In line with what is stated in the policy document on this topic (*Ministerie van OC&W, 2000*), the Ministry could make sure that the community colleges avail themselves of adequate information in order to develop a view of the study programmes that they provide. In the spirit of the document, the community colleges should be free in their choice of the information on which they base their views. If these views were to take the form of a business plan, which needs to be accounted for externally, the information used to set up such a plan would have to meet certain reliability conditions. The lead bodies would then be challenged to provide relevant and useful information that is of use to the community colleges, since they are now competing with other sources of information and hence delivering quality is important. On the other hand, the testing organisation would also be able to use the available information and therefore not need to blindly follow the views of the lead bodies and community colleges.

In addition to forward-oriented business plans, the colleges should also pay attention to the social returns from the study programmes provided in the subsequent quality evaluations, which they are already required to carry out by the Act (*WEB, Art. 1.3.6*), that is to say, to the degree to which the study programmes meet the needs of society and, more particularly, of the labour market. These subsequent evaluations should therefore pay explicit attention not only to the education process, but also to the later performance of school-leavers and graduates in their occupational practice<sup>27</sup>.

## References

- ACOA (1995). *Enkele beschouwingen over macro-doelmatigheid van het onderwijsaanbod in het hoger onderwijs*. 's-Gravenhage.
- ACOA (1996). *Macrodoelmatigheid: een onderzoeksmatige aanpak of voorstellen daartoe*. 's-Hertogenbosch.
- ACOA (1998a). *Statement adviescommissie onderwijs-arbeidsmarkt (ACOA) inzake macrodoelmatigheid*. 's-Hertogenbosch.
- ACOA (1998b). *Macrodoelmatigheid*. 's-Hertogenbosch.
- ACOA (1999a). *Aanbevelingen macrodoelmatigheidstoetsing*. 's-Hertogenbosch.
- ACOA (1999b). *Macrodoelmatigheidstoetsing Toerisme en Recreatie*. 's-Hertogenbosch.
- ACOA (1999c). *Een wending naar kerncompetenties*. 's-Hertogenbosch.

<sup>27</sup> The *Koers BVE* policy document states that the assessment framework for integral institutional supervision of the inspectorate also includes the external returns from vocational education.



- ACOA (1999d). *Doelmatigheid*. 's-Hertogenbosch.
- AOC-raad (1998). *Concept format businessplan doelmatigheid opleidingsaanbod*.
- Becker, G. (1964). *Human Capital: A Theoretical and Empirical Analysis, With Special Reference to Education*. NBER, Cambridge MA.
- Ben-Porath, Y. (1967). "The Production of Human Capital and the Life Cycle of Earnings". *Journal of Political Economy*, 75, pp. 342-365.
- Borghans, L. & De Grip, A. (1999). "Smal en breed opleiden: productiviteit versus flexibiliteit." *Gids voor de opleidingspraktijk*.
- Borghans, L. & Heijke H. (2001). "Bevordert de WEB de macrodoelmatigheid van het beroepsonderwijs?". *Pedagogische Studiën*, 78 (6), pp. 364-381.
- Box, J. (1991). Macro-doelmatigheid en het lemmingen-effect. *Tijdschrift voor hoger onderwijs*, 9, pp. 219-229.
- Brandsma, J. (2001). *Leren Kwalificeren. De inhoudelijke aansluiting van beroepsonderwijs en educatie op de maatschappelijke vraag. Evaluatie WEB thema 1a. Stuurgroep Evaluatie WEB*.
- COLO (2000a). *Naar een dynamische, flexibele en transparante kwalificatiestructuur*. Zoetermeer.
- COLO (2000b). *Macrodoelmatigheidsadviezen van de landelijke organen beroepsonderwijs*, 1 October 2000, 2 parts. Zoetermeer.
- Commissie Rauwenhoff (Adviescommissie Onderwijs-Arbeidsmarkt) (1990). *Onderwijs-arbeidsmarkt: naar een werkzaam traject*. Alphen aan den Rijn: Samsom/Tjeenk Willink.
- Commissie Wagner (1981). *Een nieuw industrieel elan*. 's-Gravenhage.
- Dothan, U. & Williams, J. (1981). "Education as an Option". *Journal of Business*, 54, pp. 117-139.
- Finegold, D. & Soskice, D. (1988). "The failure of training in Britain: analyses and prescription". *Oxford Review of Economic Policy*, 4 (3), pp. 21-53.
- Heer, H. de (1999). De wet educatie en beroepsonderwijs (WEB): evaluatie van een gebruiker. *Nederlands Tijdschrift voor Onderwijs Recht*, 3, pp. 136-159.
- Heijke, H., Borghans, L. (1998). "Investing in Education". In: Heijke, H. & Borghans, L. *Towards a Transparent Labour Market for Educational Decisions*, pp. 1-18, Aldershot: Ashgate.
- Heijke, H., Borghans, L. & Smits, W. (2001). *De WEB tussen vraag en aanbod. Evaluatie WEB thema 1b. Stuurgroep Evaluatie WEB*.
- Killingsworth, M. (1982). "'Learning by Doing' and 'Investment in Training': A Synthesis of two 'Rival' Models of the Life Cycle". *Review of Economic Studies*, 49, pp. 263-271.
- Mincer, J. (1974). *Schooling, Experience and Earnings*. New York: NBER.
- Ministerie van OC&W (1996a). *Beleidskader macrodoelmatigheid*. Zoetermeer.
- Ministerie van OC&W (1996b). *Regeling aanmeldingsprocedure en toetsingscriteria CREBO 1997/1998. Uitleg, 16c*.
- Ministerie van OC&W (2000). *Koers BVE. Perspectief voor het middelbaar beroepsonderwijs en volwasseneneducatie*. Zoetermeer.
- ROA (1995). *De arbeidsmarkt naar opleiding en beroep tot 2000*. ROA-R-1995/3. Maastricht: ROA.
- ROA (1997). *De arbeidsmarkt naar opleiding en beroep tot 2002*. ROA-R-1997/7. Maastricht: ROA.
- Romijn (1997). *Het toetsen van macrodoelmatigheid: Een voorstel voor een procedure*. 's-Hertogenbosch/Nijmegen: ACOA/ITS.
- Rosen, S. (1976). "A Theory of Life Earnings". *Journal of Political Economy*, 84, pp. S45-S67.
- Roy, A. (1951). "Some Thoughts on the Distribution of Earnings". *Oxford Economic Papers*, 3, pp. 135-146.
- Samsom (1999). *Tekstuitgave Wet educatie en beroepsonderwijs 1999-2000*. Alphen aan den Rijn: Samsom.

- Sattinger, M. (1993). "Assignment Models of the Distribution of Earnings". *Journal of Economic Literature*, 31, pp. 831-880.
- Schultz, T. (1961). "Investment in Human Capital". *American Economic Review*, pp. 1-17.
- Weiss, Y. (1986). "The Determinants of Life Cycle Earnings: A Survey". In: Ashenfelter, O. & Layard, R. (ed.), *Handbook of Labor Economics*, Volume 1, pp. 603-640. Amsterdam: North-Holland Press.

# Section 3

**Flexibility  
of the VET system**



## 6 The flexibility of secondary vocational education

ELLY DE BRUIJN, CEES DOETS & WIL VAN ESCH

*This chapter examines the results of two evaluation studies of the implementation of the Adult and Vocational Education Act. A central concept of this is ‘flexibility’, which is explained in four categories: organisational flexibility, flexibility of learning pathways, flexibility in the curriculum and pedagogical flexibility. Responsiveness and transparency are defined as the two central dimensions of a flexible system of vocational education. The results of the studies demonstrate that such a system does not as yet exist; flexibilisation of the educational process has gained little ground in educational practice. The Act itself also contains some inconsistencies that put a brake on its realisation in educational practice. The article ends with some reservations about the pursuit of flexibility in the educational process: a completely flexible educational process is impossible and undesirable. Pedagogical flexibility from the perspective of participants’ careers is, however, a path that lies within the realms of the possible and desirable, which could lead to a more responsive and transparent system of vocational education. A precondition for this is the availability of more scope for the professionalisation of the actors in educational practice, together with less central steering.*

### 6.1 Introduction

The Adult and Vocational Education Act is a clear example of the spirit of the 1990s, when policy emphasised the retreat of government and the transfer of management responsibilities to the educational institutions themselves. As a consequence, one of the central questions in the evaluation of the Act concerns the degree to which the actors in the field of secondary vocational and adult education have been able to realise its objectives, given the new responsibility structure, also introduced by the new Adult and Vocational Education Act. This question has two aspects. On the one hand, the issue of whether the Act offers actors adequate frameworks and instruments and does not create barriers to realising its objectives. This latter point refers primarily to possible inconsistencies in the Act and to supplementary regulations concerning the principle of autonomy of community colleges, which may be undermined by rules and regulations in other areas. On the other hand, there is the question of whether the actors in the field are professional enough to make full use of their autonomy, in order to achieve the goals of the Act. The results of the various evaluation studies, such as those reported in this volume illustrate, to a greater or lesser degree, this central area of tension between steering via the Act and the professionalism of actors (see also chapter 4).

In this chapter, we examine the results of two evaluation studies of a theme where this area of tension is very much present, namely developments at the level of the primary process. At this level, national government has a long-standing tradition of 'steering at a distance'. The emphasis is on the autonomy of actors in the design of teaching and learning processes. The tension between central steering and the professionalism of actors is inherently linked to policy evaluations at this level. Furthermore, the evaluation studies examine a topic involving one of the core intentions of the Act as regards teaching and learning processes: the flexibility of education, to produce optimal fine-tuning to the characteristics and needs of the participants in and clients of secondary vocational education. This division of responsibility is perceived as appropriate by the Dutch government. The competence of designing the primary process is, to a certain degree, a precondition for realising this central goal of the Act. The professionalism of actors is, at the same time, also of great importance, particularly since the desire for flexibility involves a departure from the notion of the 'prepackaged programme', which has long dominated educational practice. This involves not only the professionalism of the actors as such, but also new accents in professionalism.

In the next section, we discuss the results of two evaluation studies from the perspective of promoting flexibility in education and the relationship with central regulations, as formulated in the Act. First of all, we explore the concept of flexibility in order to develop an analytical framework. Subsequently, we make use of this framework to firstly discuss the intentions and objectives regarding flexibility, as set out in the Act and supplementary policy. Secondly, we explore the realisation of flexibility in educational practice. In the last part of this chapter, we examine policy and practice. The limits of flexibilisation of educational processes are discussed, outlining the consequences of these limits for the role and competencies of coordinators, teachers and participants.

## 6.2 Flexibility<sup>28</sup>

*MBO* (upper secondary vocational education) in The Netherlands enables young people of sixteen and older to gain qualifications for participation in a wide range of occupations, for entry to higher-level courses and for social participation in general. These three objectives give rise to different demands in designing learning pathways that lead to vocational qualifications. On the one hand, the provision of vocational education pathways must meet the different needs and wishes of a heterogeneous population of participants in this form of education, as well as the differentiated and changing demands of the labour market and occupational practice. The key term here is 'responsiveness': responsive vocational education demands a significant measure of differentiation and specification in the content and design of the pathways. On the other hand, the variety of learning pathways in secondary vocational education needs to provide a coherent whole, such that participants, employers and other stakeholders can find their way within this system. This means that the progress of an individual within a learning pathway must not be hindered by its context or location at a particular moment. It also means that the results of the pathways are meaningful in terms of the competencies acquired. The key term is 'transparency': a transparent system of vocational education demands a significant degree of coherence and clarity in the total design of learning pathways and outcomes, in the interests of participants and

28 This section draws on: Raffe, 1992 & 1994; Nijhof & Streumer, 1994; De Bruijn & Howieson, 1995; Harms, 1995; OECD, 1994; Pair, 1998; Geerligs, 1999; Nijhof, 1999; Den Boer, De Bruijn & Harms, 2002.

clients. A system of vocational education that meets both demands can be defined as a flexible system for the acquisition of vocational qualifications. Such a system is characterised by three elements:

- 1 *internal flexibility*: learning pathways match the heterogeneity of participants with different characteristics and needs;
- 2 *external flexibility*: learning pathways meet the dynamics of occupational practice and the labour market;
- 3 *transparency*: the system of learning pathways is coherent, possesses clarity and does not present obstacles to the various stakeholders.

There is tension in the relationships between these three elements. The first two elements, involving, above all, the responsiveness of the system, may clash with the third, which involves the coherence of the system. Such tension appears to be inherent in the vocational education system in particular and is present in different national contexts and efforts to arrive at a flexible system for vocational education, operating within this triangle of different elements (Brown & Manning, 1998; Trant, 1999).

Nijhof and Streumer (1994) and Nijhof (1999) describe the system of vocational education in terms of a model using different categories, such as: a) context; b) inputs; c) throughputs; and d) outputs. They refer to the core concepts of this model in terms of 1) flexibility; 2) mobility; and 3) transferability. Both mobility and transferability are defined here as output variables: flexible vocational education should deliver individuals who possess competencies with a transfer value that supports mobility. Mobility as an output variable at system level is based upon the existence of a coherent system of diplomas and certificates. Flexibility is defined in this model as a characteristic of the process that is so organised that learning processes are directed to the development of transferability in very different types of participants. In respect of the model proposed by Nijhof and Streumer (1994), we restrict ourselves in this article to the 'flexibility of the process'.

Raffe (1994) describes these process characteristics in terms of four dimensions:

- 1 *individual flexibility*: Raffe understands this as an individual competence acquired through education, that is to say, as an output of vocational education;
- 2 *flexibility of the curriculum*: this involves flexibility with reference to a number of dimensions, namely flexibility over time, e.g. updating the curriculum due to changes in competencies demanded by occupational practice, across space, e.g. adjustment to regional conditions, and across individuals, e.g. meeting the particular needs of individual students;
- 3 *methodological flexibility*: this involves the principle that participants can follow the same curriculum via different forms of learning, in different institutional contexts, such as at school or in the workplace, and at different times, such as in the evening or during the day, part-time or full-time;
- 4 *flexibility of learning pathways*: Raffe refers here to aspects like open access, less emphasis upon distinctions between groups of participants in different learning pathways – such as heterogeneous groups or combination of parts of different pathways, smooth transfer between different pathways, and greater diversity in the further educational routes and labour market possibilities upon completion of a learning pathway.

Given the focus on the flexibility of the educational process, Raffe's four-dimensional model is useful in certain respects. First of all, this article concentrates on his second and fourth dimensions. From a process perspective, the dimension of individual flexibility, which refers to an output variable of vocational education, is of less concern. Secondly, efforts to realise the flexibility of educational processes in vocational education are of greater importance in this regard. For this reason, we prefer

to talk of 'flexibilisation' rather than flexibility as such. Thirdly, Raffe's approach lacks a reference to an organisational or institutional dimension (see also chapter 8), which is at least as relevant to the realisation of flexibility as the other three dimensions. Raffe includes the variables of contexts and time for learning as elements of methodological flexibility. In the Dutch context, these can better be regarded as elements of a separate category of organisational flexibility. Fourthly, the flexibility of the pedagogical process is inadequately addressed in Raffe's understanding of methodological flexibility. In the Dutch context, this refers to both the flexibilisation of learning pathways and different varieties of the educational process at micro-level.

Taking this into account, we use the following conceptualisation of flexibilisation of the educational process, in terms of four descriptive categories:

- a *organisational flexibilisation* refers to the level for the organisation of educational activities. A distinction can be made between interorganisational flexibilisation and intraorganisational flexibilisation. The former refers to the alignment between and the interchangeability of educational provision by the different institutions that together comprise vocational education. In a flexible system of vocational education, there are no institutional barriers to following a learning pathway. Interorganisational flexibilisation involves the preconditions for the flexibilisation of the primary process within institutions, such as timetables, the engagement and competencies of personnel, resources and locations. In a flexible system, such preconditions are so organised that they do not inhibit the flexibility of the other aspects;
- b *flexibilisation of learning pathways* is understood in terms of Raffe's model;
- c *flexibilisation of the curriculum* is the emphasis upon flexibility across individuals. We regard flexibilisation in terms of time and space, as defined by Raffe, as part of the fundamental dimension of responsiveness;
- d *pedagogical flexibilisation* concerns ways of teaching and learning. This involves the instructional and guidance activities of teachers, together with the learning and application activities of participants. Pedagogical flexibilisation means that the educational process – as regards location, learning resources, work forms, composition of groups, guidance activities, and forms of application – is defined in terms of the needs of participants, together with the demands and needs of occupational practice, and is differentiated in terms of these needs. Raffe's dimension of methodological flexibility is regarded more specifically in terms of ways of learning.

### 6.3 Research question and methodology

The first evaluation study concerns the question of articulation between the different segments of vocational education, namely the relationships between *VMBO* (preparatory secondary vocational education), *MBO* and *HBO* (higher professional education). The second evaluation study examines the accessibility of vocational and adult education, in terms of a tailor-made approach in this sector. Both studies, carried out in 2000, had their own research questions. It is the intention of this chapter to link the two studies via the notion of flexibilisation. As a consequence, the questions to be addressed are:

- a What are the policy principles in the Act with regard to flexibilisation?
- b To what degree and in what manner is flexibilisation manifest in educational practice?
- c What are the barriers in practice to the implementation of flexibilisation, and how far are these determined by the Act?
- d In what way can the introduction of flexibilisation be optimised?



Section 6.4 deals with the policy premises, and section 6.5 subsequently examines their realisation in educational practice. In section 6.6, the policy instruments are juxtaposed with the state of affairs in practice; the section also deals with the issue of optimising flexibilisation. In these sections, the results of the two studies will be summarised according to the selected dimensions. An assessment of the degree of transparency and responsiveness will be given, from the perspective of internal flexibility.

The empirical research on the articulation between the different segments of the vocational education system comprised four case studies. The most important criterion in their selection was the ROC (community college), as it is situated in the regional pattern of provision of vocational education. Given the more specific evaluation question about the influence of the vertical structure of agriculture vocational education upon optimising the articulation, two of the case studies involved AOCs (Agricultural Training Centres). Data collection took place at the levels of central management, unit management, directors of schools previously attended by students, and representatives of HBO institutions. Relevant secondary resources were also contained in the studies, including reports on quality care and reports from the Inspectorate. Supplementary discussions with key figures took place at national level.

The empirical research on accessibility and tailor-made provision for individuals involved a written questionnaire in a survey of participants about their experiences of their courses, together with a survey of their course coordinators' views of the problem of realising flexibilisation in practice and the limits to it. The research sample comprised 3,000 participants in 15 different community colleges and 8 different AOCs. Three-quarters of the respondents were at the time following a school-based pathway, while one-quarter were following a work-based pathway. Only 72 participants from three community colleges taking adult education courses were included in the study. These data cannot be regarded as representative, in contrast to the data for the participants in vocational courses. A total of 62 course coordinators completed a questionnaire: 42 from community colleges and 20 from agricultural colleges.

#### 6.4 Premises of public policy regarding flexibility

Promoting the transparency of the education system was one of the central policy intentions of the WVO (Secondary Education Act) in 1968. With regard to vocational education, this Act included only full-time vocational courses: LBO (lower secondary vocational education), MBO and HBO were combined with general secondary education in one system of secondary education. A separate act in the late 1960s governed a specific part of vocational education, namely the apprenticeship system. VAVO (adult general secondary education) was included later in the WVO system. All the other existing elements of adult education were either subjected to other forms of legal governance or were not legally regulated at all.

After 1968, policy towards vocational education was mainly characterised by the intention to make the provision of vocational education inclusive, especially with regard to young people at the bottom of the educational ladder, in the form of responsiveness to specific target groups. In the middle of 1980s, this policy resulted in a great number of separate legal regulations that involved an experimental provision for each target group within secondary education. Parallel to this policy trend, however, there was also an emergent policy intention to promote the harmonisation and integration of full-time vocational education. Examples of this policy included the transformation of LBO into VMBO; the harmonisation

of courses in the social services and health care sectors during the 1980s; and the reform of *MBO* at the end of the 1980s (see also chapter 2).

The policy priority in the 1980s and early 1990s with regard to the different aspects of flexibility was the curriculum – for example, modularisation of the curriculum (Harms, 1995) – and also, to a lesser degree, flexibilisation of the pedagogical processes, compared to the policy intentions regarding the introduction of *KMBO* (short full-time *MBO*) (De Bruijn, 1997). In addition, there was also growing policy interest in interorganisational flexibilisation, with regard to the harmonisation and integration of vocational courses. This was manifested in central government firmly steering vocational education in the direction of cooperation between the different institutional providers – educational institutions and firms. Increasing the transparency of the system acquired a more central place in vocational education policy. Finally, this period was marked by central government's emphasis upon increasing the responsiveness of vocational education to occupational practice and the labour market. To this end, a methodology was proposed for the development of educational objectives that would increase the involvement of both sides of industry (Brandsma, 1993) (see also chapters 4 and 5).

The development and implementation of the Adult and Vocational Education Act in 1996 can be seen as the provisional final phase of the policy developments described here. There were indeed specific accents with regard to the flexibilisation of the system. Firstly, when the Act was introduced, the three segments of the vocational education system were governed by three different legal arrangements: *VMBO* by the *WVO* (General Secondary Education Act), *MBO* by the *WEB* (Adult and Vocational Education Act), and *HBO* by the 1986 Higher Education and Scientific Research Act. In contrast to the *WVO*, however, all forms of *MBO* were brought together in the *WEB* in one legal regulation.

Secondly, an important factor was not only that a single legal framework governed secondary vocational education, but that adult education – including *VAVO* – also fell under this framework. In this respect, the *WEB* can be seen as a system act explicitly directed to the various programmes within the second stage of secondary education, and thus aimed at horizontal steering of the flexibilisation of provision. Thirdly, the institutional amalgamation of community colleges, together with the national qualification structure, were the central steering mechanisms for flexibilisation of the process. This institutional amalgamation resulted in a shift towards an emphasis on intraorganisational flexibility, compared to the 1980s, together with the flexibilisation of learning pathways within the institutions. Within the Act, compared to the 1980s, the national qualification structures have acquired a much stronger role than steering responsiveness to occupational practice and the labour market. The promotion of responsiveness was largely left to the two sides of industry.

The Act as such is characterised by three central policy principles, which were intended by the policy-makers to support the flexibility of the process:

- 1 adult education and secondary vocational education were combined. This integration envisaged that participants in adult education courses – especially those aimed at broad social participation – could more easily prepare for transfer to a vocational course in secondary vocational education. Furthermore, this integration was intended to create greater possibilities for more specific support for participants in vocational courses;
- 2 the implementation of the Act introduced a national qualification structure to facilitate the harmonisation and integration of the different learning routes and courses within the institutions. The qualification structure was constructed in such a way that, in principle, all participants could be guided to the acquisition of a vocational qualification. *VOA* (preparatory and supportive activities) serve the vocational qualifying path. For these activities at levels 1 and 2 – assistant and basic

vocational courses – the institutions receive a higher financial contribution; the form and content given to these activities is left to the institutions themselves;

- 3 within the framework of the Act, the educational institutions have a great deal of freedom to make learning pathways more flexible, introducing different points of entry and exit, differentiation of learning speed, flexibilisation of assessment and certification, possibilities to change from one course to another – either in the same vocational sector and at the same level, or from one sector to another, or one level to another. Furthermore, the institutions are free in the provision of educational and career guidance and the counselling of participants in support of their choice of a learning pathway appropriate to their future occupational practice. Greater flexibility can also be achieved through the introduction of the APL (Assessment of Prior Learning).

In relation to the four aspects of flexibilisation, one can conclude that the intentions of the Act place the emphasis on intraorganisational flexibilisation, flexibilisation of learning pathways, and a certain degree of flexibilisation of the curriculum. There is an almost complete absence of policy intentions and steering in terms of interorganisational and pedagogical flexibilisation. However, these last two aspects of flexibilisation are central to recent policy papers with regard to the flexibilisation of the whole of the vocational education system, but in contrast to the original principles of deregulation, where responsibility for the internal process is at local level (*Stuurgroep Impuls Beroepsonderwijs* [Steering Group Impulse for Vocational Education and Training], 2001; Advisory Report of the *Commissie Boekhoud* [Boekhoud Commission], 2001; Vocational Letter of the *Ministerie van Onderwijs, Cultuur en Wetenschappen* [Ministry of Education], 2001). To that extent, the Act marked the end of a development that had been going on since 1968.

The attention of policy-makers to the articulation of qualification levels has increased significantly in recent years. This is a consequence of the high level of dropouts from vocational education, especially at the lower levels, and the awareness of a 'reserve of talent' in secondary vocational education, especially with reference to increasing the transfer to HBO. In the Vocational Letter of June 2001, vocational education is defined as the second royal route to higher education.

In the policy papers mentioned above, the improved articulation between the component parts of vocational education should, above all, be realised through flexibilisation of the educational process. In contrast to the period leading to the design of the new VET Act, interest in the pedagogical process, in combination with flexibilisation of learning pathways, has grown significantly. The policy directed at flexibilisation of the education process now accentuates the perspective of the participant, instead of that of the institution. The key idea is that the participant's career development should be central, learning pathways be tailor-made to support this, and student needs should be an integral vocationally-directed approach to pedagogical questions, to ensure that participants are 'stimulated and bonded'.

## 6.5 Realisation in practice

In the following section, flexibilisation in educational practice will be systematically described, including its limitations, on the basis of the four different aspects of flexibilisation identified above.

### 6.5.1 Organisational flexibilisation

Interorganisational flexibilisation is still encountering the inevitable problems. There are countless obstacles that inhibit progression from the first phase of secondary education to vocational education: for example, the attainment targets from the first phase of secondary education and entry to secondary vocational education do not match well. There are also significant regional differences. The community colleges often apply different entry requirements for courses at levels 3 and 4 of the national qualification structure. Respondents from the first phase of secondary education indicated that secondary vocational education is not always adequately informed about the programmes and attainment targets of the first phase. Another problem is the relatively narrow qualifications within the qualification structure of secondary vocational education. Participants are expected to make an early choice of vocational direction, even though they do not possess a clear vocational orientation. A third group of institutional obstacles involves differences in pedagogical approach. The transfer from the relatively safe school of the first phase of secondary education, where 'the participants are closely supervised', to the large and 'anonymous' colleges, with expectations of independent self-responsibility, is experienced as problematic by many participants. In the case of agricultural vocational education, which is usually on a smaller scale, this transfer is easier to manage, especially when participants make this transfer within the same institution, where there is one location for both *VMBO* and secondary vocational education. The absence of interorganisational flexibilisation is, above all, disadvantageous to participants at the lower end of the qualification structure. There is a marked underdevelopment of supportive structures in *VMBO* and secondary vocational education – for example, practical education within *VMBO*, within secondary vocational education the assistant level I courses, supportive services – for the weaker students. For these participants, there is a major institutional gap between the first phase and available follow-up pathways in secondary vocational education.

With regard to transfers from secondary vocational education to *HBO*, there are institutional investments directed at shortening such pathways. Furthermore, a number of barriers have been removed, by shortening the total length of study for a number of courses – especially in the economics sector – by one year. The colleges involved in this study are discussing with the *HBO* institutions in their regions how these pathways can be shortened. In contrast to the articulation between the first phase and secondary vocational education, the pedagogical approach to participants in the transfer from secondary vocational education to *HBO* seems to be less problematic. In recent years, there has been an improved articulation between secondary vocational education and *HBO*, in both the development of new forms of learning and emphasis upon self-regulated learning, supported by various forms of guidance.

Interorganisational flexibilisation is, above all, being sought by strengthening regional cooperation. In the case of articulation with the first phase of *VMBO*, cooperation is focused on the institutionalisation of *VMBO*. In the case of articulation with *HBO*, cooperation is concentrated on shortening – and occasionally integrating – related courses.

**Intraorganisational flexibilisation** involves the preconditions for flexibilisation of the educational process. The respondents mentioned a series of problems. With regard to the guidance of poorly qualified participants, there are indications that the institutions lack both affinity with and expertise about such groups, so that it is difficult to develop tailor-made provisions. In more general terms, the respondents referred to a lack of resources – such as space, facilities, competencies of teachers, etc. – which are necessary to bring about real flexibilisation. In this respect, they regard an inflexible costing system as one of the main barriers. The budget for supportive services is seen as too limited, in the sense that there are more participants requiring such support than are actually included in the calculation of the additional resources for this purpose. The financing of the work-based learning pathway is based upon the requirement for the participants to have found a training place with a firm before 31 December; flexible entry is impossible after this date. For the financing of the school-based pathway, however, there is only one calendar date. The question is why financing cannot start from any date of entry to a course. Financing on the basis of diplomas acquired encourages the enrolment of participants at a lower level, and this applies in particular to levels 1 and 2 of the national qualification structure. Given additional support, participants could successfully follow a course at level 2, but they are all too often enrolled at level 1, given the risk of their not acquiring the appropriate diploma. *HBO* institutions also refer to the reduction in financial support as a restrictive precondition. Withdrawal of funds for preparatory higher education courses, for combined pathways of general secondary education and *MBO*, and for orientation and transition pathways means that there are no specific routes for participants with a somewhat lower qualification level, who might just benefit from some additional support. Such participants must now follow the formal routes via the various levels, and this takes longer.

## 6.5.2 Flexibilisation of learning pathways

In this context, we make a distinction between four subsystems of learning pathways: from the first phase of secondary education to different levels and learning routes within *MBO*; from adult education to secondary vocational education; the different learning pathways within secondary vocational education; and, from secondary vocational education to *HBO*. The question concerns the degree to which accessibility has been fully achieved, and whether there is a varied offer of both divergent and convergent learning routes towards a differentiated range of exit points, together with a smooth transition between these pathways.

### **FROM THE FIRST PHASE OF SECONDARY EDUCATION TO *MBO***

In general terms, it can be concluded that there is a relative lack of flexibility in the learning routes within the first phase of general secondary education and secondary vocational education. At the lowest qualification levels, the problem is that there is a relatively scarce provision of courses at level 1 in secondary vocational education. At the same time, there is also a low level of creativity and intensity in the utilisation of resources for preparatory and supportive activities, which would facilitate the realisation of the relevant learning pathways at level 2 in secondary vocational education, specifically intended for low qualified entrants from the first phase of secondary education. The expertise and affinity of teachers with pathways at the lowest level of qualification have, in many locations, either dissipated or disappeared. In the period prior to the new Act, such experience was to be found in so-called orientation and transfer projects and in non-formal education for youngsters.

These have disappeared with the implementation of the Act. The same kinds of problems became manifest in the first phase of secondary education, following the introduction of *VMBO*.

Flexibilisation of the subsystem is also problematic at higher levels of the qualification structure. There is an almost complete absence of articulation practices that utilise the opportunities for differentiation made possible by the Act. There is a significant lack of progressive learning routes that make optimal use of the opportunities for differentiation in levels and learning routes, in order to establish articulation with the first phase of secondary education and above the application of tailor-made provision. Despite heterogeneous recruitment from the first phase of secondary education, secondary vocational education institutions, nonetheless, tend to place the emphasis upon entry to the school-based and work-based pathways at level 2, the work-based pathway at level 3 and the school-based pathway at level 4. In other words, the *MBO* institutions tend, as a rule, to allocate entrants according to their standard forms of provision, rather than adapting the provision to meet the needs of participants.

In conclusion, there are few if any colleges that either engage in systematic cooperation with schools for general secondary education for combined programmes, or seek to establish suitable pathways for students after three years of general secondary education. One exception is the shortening of routes for qualified school-leavers from the *HAVO* (upper general secondary education) pathway. These limited efforts in respect of vocational routes as a continuation of the first phase of general education are in contradiction to the fact that a relatively large number of young people pursue this route through the education system.

#### **ARTICULATION BETWEEN ADULT EDUCATION AND VOCATIONAL EDUCATION**

Through the introduction of the national qualification structure, the flexibilisation of pathways from adult education to secondary vocational education has been strengthened – at least on paper. Experimental programmes and other materials have been developed. In practice, cooperation at the lower level of the qualification structure exists in two ways: through the articulation of adult education pathways with the assistant level courses at level 1, and through the development of pathways combining adult education and vocational education. Neither of these forms has been introduced on a wide scale. They have been introduced in 25% of assistant courses in the school-based pathway, while they are more numerous in the work-based pathway, at 35%. Above level 2, these forms are far less developed. An important barrier is the lack of direction and steering. Policy development in the area of adult education has been decentralised to the local authorities, and they are struggling with their roles of providing direction, or simply transferring financial resources.

#### **MBO**

The national qualification structure offers, in principle, the possibility of acquiring a vocational qualification on the basis of partial qualifications gained in one or more vocational sectors. The participant makes his or her own choices. Little use is, however, made of these opportunities, with the exception of the qualification structure for the metal industry and for agriculture. Many promises remain in a phase of development. Between 40% and 75% of course coordinators indicated that they are involved in the development of tailor-made programmes. There is a relatively high score for the development of possibilities to change learning pathways at 75%, while the creation of possibilities for flexible points of exit has the lowest priority. An important argument for the introduction of flexibilisation is the heterogeneity of the population of participants. However, empirical research shows that more than half the participants do not realise that it is possible to change levels, while 33% think

that their course is not suited to their capacities (too easy or too difficult). Approximately 40% of the participants expressed a need for more differentiation in terms of the time involved, while only 15% indicated that this was possible in practice. The need among participants for a flexible point of entry is relatively limited, and this applies, above all, to older participants. Transfer from the school-based and work-based learning pathways is almost non-existent in practice, one reason being that participants are not aware that this is a possibility. Only 5% of participants indicated that they wished to change their learning pathway. Such a change is more often from the school-based to the work-based pathway. One complication here is the requirement that the choice of learning pathway has to be agreed in advance, and this makes change very difficult. *APL* (Assessment of Prior Learning) creates the possibility of smooth transfers between learning routes, together with more flexible and efficient learning pathways for participants. The national qualification structure makes it possible for students to acquire recognition of prior learning. There is an expressed intention for the articulation between learning pathways to create opportunities for the recognition of partial qualifications gained at a lower level, upon transfer to an equivalent or higher level. Assessment of Prior Learning is concerned with both formally and informally acquired competencies. Little use, however, is made of these possibilities. Research demonstrates that there is little recognition of the competencies possessed by participants when they enter a course of vocational education. Given that participants have little notion of prior learning, the research focused on the accreditation of previous courses. The intake interview is an all too obvious opportunity to examine the question of previous courses attended by participants. Eight out of ten respondents indicated that there was no discussion of such a possibility during their intake interview. If it does take place, this is in the case of 'returnees to learning'. Experiences gained in vacation work or a part-time job are not included. Participants who are of the opinion that they have a right to recognition of accreditation of prior qualifications do not get the opportunity to express this. This group of participants is very unhappy with the institutional policy in this regard.

### **FROM MBO TO HBO**

In 2000, the focus of attention of the community colleges and *HBO* institutions was, on the one hand, on the pre-Act situation and, on the other, on the future. Anticipating the future involves concentrating in particular upon shortening the pathways from secondary vocational education to *HBO*. Within some sectors, the secondary vocational and related higher professional courses are increasingly being integrated into one pathway, lasting seven years, with different points of entry and exit. Participants have the choice of following parts of these courses either entirely within the community colleges or *HBO* institutions, or of taking parts of the courses at both institutions. Flexibility is well developed in these cases. In other cases, flexibility is, above all, being sought by the classical approach to the articulation problem that involves giving credit for an examination subject of a course followed elsewhere. One problem in this regard is that new forms of education at both levels often involve dropping the traditional subject basis of the curriculum.

### 6.5.3 Flexibilisation of the curriculum

At the start of this article, a distinction was made between three dimensions of flexibilisation of the curriculum, namely flexibilisation of time, place and across individuals. The first two aspects coincide with the dimension responsiveness, and we shall not consider them further. Here we are concerned

with the question of whether the curriculum is sufficiently varied to match the characteristics and needs of different groups of participants.

The evaluation studies suggest that there is very little flexibilisation across individuals at curricular level. The relation between the qualifying pathway and the study programme is one-to-one. All participants follow the same compulsory parts of the programme; variation is possible, but only at the level of optional subjects. The fact that there are standard programmes for all participants is also related to the fact that there is very little application of APL procedures.

Flexibilisation across individuals is more prevalent in programmes at the lower qualification levels, where the emphasis is placed upon variation in programmes in relation to individual deficits. There is no development of specific teaching materials for different groups of participants. Furthermore, the teaching material is a poor substitute for that at levels 2 and 3.

#### 6.5.4 Pedagogical flexibilisation

MBO education has experimented on a broad front with the introduction of other ways of teaching and learning, such as problem-based learning, forms of open and self-directed learning, extensive application of information and communication technologies, and variants of combining working and learning in different ways. Many such innovations remain at an early stage of development, but they are enjoying increasing attention in the educational institutions. One of the objectives of these experiments with variation in the teaching and learning processes is to secure improved articulation with the heterogeneous student population. These pedagogical approaches are intended to make it possible to support participants in their individual learning processes.

In contrast, there is little innovation with regard to the guidance of participants.

In the steering and regulation of study programmes in secondary vocational education, traditional forms of intake interviews and educational guidance still dominate. The intake interview retains a strongly orientating and informational character, while educational guidance does little to support the participants in the many choices they have to make during their educational career.

### 6.6 Limits to flexibilisation?

The Act is a framework that offers significant freedom in the design of learning pathways. In this sense, it is largely up to the community colleges themselves to determine the desired flexibilisation of the educational process. In section 6.4, it was made clear that the realisation of flexibilisation is still in an early phase and is concentrated on the first steps of flexibilisation of learning pathways and intraorganisational flexibilisation. In some ways, the Act performs a limiting role, due to some inconsistencies in the regulations. These include its inflexible costing system, together with the imbalances and rigidities in the development of the national qualification structure.

The ways and the degree to which flexibilisation has been given form in educational practice up to now is, however, in line with the policy priorities formulated at the time of adopting the Act, as discussed in section 6.3. There was also an emphasis at the time upon the development of intraorganisational flexibilisation and the flexibilisation of learning pathways within the colleges. There was an almost complete absence of policy intentions and steering with regard to interorganisational flexibility and pedagogical flexibilisation. These have only recently been of interest to policy-makers.



The title of this article refers to the final research question that was central to the evaluation studies. The question of the optimisation of flexibilisation of the educational process is necessarily one that examines the limits to flexibilisation. Is complete flexibilisation a myth or a possibility?

With reference to the optimisation of the development of a flexible system, the results of the evaluation studies indicate that further professional development of the most directly involved actors is an important precondition. Realisation in practice is less advanced than was envisaged and intended by both the Act and the actors involved. Despite the fact that the Act limits the process of flexibilisation to a certain degree, it remains the primary responsibility of the actors. The Act offers more opportunities to this end than have been utilised up to now. Further development of flexibilisation is dependent upon creating more scope for the actors. Stronger steering by government is clearly not a solution, given the fact that flexibilisation can only be achieved by those involved. Steering by central government should be limited to stimuli and room for experiment. Both the costing system and the national qualification structure for vocational education need to be flexibilised and focused more upon core elements.

For the actors most involved, it is important that they make as much use as possible of the available scope. Teachers and course coordinators can do this when they engage in real innovations and professionally develop themselves, with particular reference to both the learning and selection processes of the 'independent and aware' participant. At the same time, they need to be approached by institutional management as 'the professionals' at the level of the primary process. Students also need to acquire a more significant role in determining their learning pathways and ways of learning. This demands much more attention to the development of the competencies that are required for self-regulation and self-direction of the learning process.

Despite these conclusions, it is necessary to make some final remarks about the ambition to flexibilise the primary process.

Firstly, there are clearly limits to flexibilisation that are dependent on the dimension involved. The flexibilisation of learning pathways and curricula comes up against the limits of the organisation, as well as the limits of the possible. An individual learning pathway for each student is an organisational impossibility, but is also not desirable from the viewpoint of forms of cooperative learning or the issue of motivation. In principle, there are no limits to pedagogical flexibility. Further flexibilisation of the pedagogical approach will mean, above all, that more and different participants will have opportunities for learning and qualification in vocational education.

Secondly, there is the question of whether further flexibilisation as such is indeed possible. At the root of the desire for flexibilisation of education is the wish to create a system in which education articulates with the needs of both occupational practice and the participants, together with a system in which all the elements relate to each other. This is a fiction or myth and has been referred to as an 'innocent thought'. There is a field of tension between the dimensions of transparency and responsiveness, which demands some kind of balance. In this sense, it is promising that recent policy has opted for the perspective of participants in terms of their careers. This is a choice of a priority that determines the flexibilisation of the educational process and also the optimum of a both transparent and responsive system of learning pathways leading to vocational qualifications.

## References

- Brandsma, J. (1993). *Beroepsprofiel- en leerplanontwikkeling; de koninklijke weg als naïef traject? Een vergelijkende studie naar methoden voor de ontwikkeling van beroeps(opleidings)profielen*, dissertatie. (Developing occupational and training profiles; the royal road as a naïve approach?). Enschede: Universiteit Twente.
- Boer, P. de, Bruijn, E. de & Harms, T. (2002). Integrating a flexible, transfer oriented experiment into regular Dutch VET, has it worked? In: Breuer, K. & Beck, K. (eds.). *Are European vocational systems up to the job? Evaluating in European vocational systems*, pp. 133-153. Frankfurt am Main/Oxford: Peter Lang.
- Brown, A. & Manning, S. (eds.) (1998). *Qualifications for employment and higher education. A collaborative investigation across Europe. Leonardo da Vinci project*. Hämeenlinna: University of Tampere.
- Bruijn, E. de (1997). *Het experimentele en het reguliere: Twintig jaar voltijds kort middelbaar beroepsonderwijs. Een studie naar de relatie tussen onderwijskundige vormgeving en rendement*, dissertatie (The experimental and the regular: Twenty years of full-time short senior secondary vocational education). SCO-rapport 477. Amsterdam: SCO-Kohnstamm Instituut.
- Bruijn, E. de & Howieson, C. (1995). Modular vocational education and training in Scotland and The Netherlands: Between specificity and coherence. In: *Comparative Education*, V31, No 1, 83-100.
- Commissie Boekhoud (maart 2001). *Doorstroomagenda Beroepsonderwijs* (Flexibility agenda for vocational education). Advies aan de minister van OCenW. <http://www.minocw.nl>.
- Geerligts, J.W.G. (1999). *Design of responsive vocational education and training. A reconstruction of a systems change in agricultural education*, dissertatie. Enschede: Universiteit Twente.
- Harms, G.J. (1995). *Effecten van modulair beroepsonderwijs bij leerlingen: motivatie en rendement*, dissertatie. RION Monografieën onderwijsonderzoek 25. Groningen: Gronings Instituut voor onderzoek van onderwijs, opvoeding en ontwikkeling (GION). (Students' effects of modular vocational education: motivation and returns).
- Ministerie van Onderwijs, Cultuur en Wetenschappen (juli 2001). *Beroepsbrief*. <http://www.minocw.nl>. (Vocational letter).
- Nijhof, W.J. & Streumer, J.N. (eds.) (1994). *Flexibility in training and vocational education*. Utrecht: Lemma.
- Nijhof, W.J. (1999). Flexibility, mobility and transferability as targets of vocational education. Cornerstones in COST Action 11. *Lifelong learning in Europe*, 2, 93-100.
- OECD (1994). *Vocational training in The Netherlands: Reform and innovation*. Paris: OECD.
- Pair, C. (ed.) (1998). *Pathways and participation in vocational and technical education and training*. Paris: OECD.
- Raffe, D. (ed.) (1992). *Modularisation in initial vocational training: Recent developments in six European Countries*. Edinburgh: Centre for Educational Sociology, University of Edinburgh.
- Raffe, D. (1994). The new flexibility in vocational education. In: Nijhof, W.J. & Streumer, J.N. (eds.). *Flexibility in training and vocational education*, pp. 13-33. Utrecht: Lemma.
- Stuurgroep Impuls Beroepsonderwijs en Scholing (maart 2001). *Naar een steviger fundament voor de kennissamenleving*. <http://www.minocw.nl>. (Towards a stronger foundation of the knowledge society).
- Trant, A. (ed.) (1999). *Reconciling Liberal and Vocational Education*. Report of the European Union Leonardo da Vinci Research Project on Promoting the Attractiveness of Vocational Education (PAVE). Dublin: Curriculum Development Unit.

## 7 Internal Efficiency and Flexibility

JOS W.G. GEERLIGS

*Schools for MBO (upper secondary vocational education) should provide a minimal vocational qualification for everyone over 16 that enters the labour market. That is why the qualification system comprises four levels and several pathways, to accommodate diverse target groups. The provision has been designed to guide students effectively and efficiently through appropriate pathways and levels. When students qualify in a reasonable time, this might be the consequence of the flexible design of pathways, both vertical and horizontal. This chapter focuses on the measurement of efficiency and internal flexibility; the outcomes of these measurements are of interest to different stakeholders. They inform the student about the effort required to become qualified. For the school management, the outcomes provide crucial feedback about the effectiveness of the learning process; at a national level, they supply information about the public function of the VET system. Approaching these measurement intentions, however, problems of a methodological, practical and normative nature are encountered. The main conclusion is that the monitoring of efficiency needs to be improved.*

### 7.1 The methodological question

What in the VET system would make internal flexibility measurable, in order to provide data about efficiency? Do students attain a qualification in a reasonable time? The two elements in this question: ‘Do they obtain it?’ and ‘Will it be in a reasonable time?’ require a methodological structure and transparent indicators. The next section elaborates on four indicators.

#### 7.1.1 Four indicators of internal flexibility

The first student question about acquiring qualifications has to be transformed into an indicator, in order to measure the result. By reformulating the question into ‘What is the chance of obtaining the required qualification?’, the criterion of success rate is stipulated. What is the success rate of students in the educational process acquiring a diploma or a certificate?

In technical terms, when all enrolled students acquire a diploma, the success rate is 1. When 20% fail, the success rate is 0.8.

The second student question about reasonable time spent in school could be transformed into ‘What is the chance of finishing the study programme within the prescribed course length?’ We call this chance the *length of stay*. When all enrolled students obtain their diploma in the time prescribed for a

course, the length of stay is 1. When students take more time, the length of stay is  $> 1$ ; when they develop a high pace, utilise short cuts or acquire exemptions, the length of stay is  $< 1$ .

The length of stay will be calculated for both students that acquire qualifications and those that do not. From an economic point of view, in national policy, it is attractive to keep the length of stay short. It is attractive from other points of view as well. From the school manager and student viewpoint, changing pathways, levels or courses is normally a time-consuming business. The sooner students can move horizontally or vertically in the system to repair poor choices, the better.

In our approach to efficiency, we assign all the time between the date of entry and the date of school-leaving to the highest qualification obtained by a student. What happens in school – the process – remains unknown. Efficiency provides information about the ratio of time and outcome (diploma).

Flexibility is a prerequisite for creating possibilities for the application of interventions to achieve efficiency. With efficiency, we aim to report on the outcome, not the prerequisite or the means. The three indicators – success rate, length of stay – qualified, and length of stay – not qualified – together provide the input for the calculation of efficiency – the fourth indicator. Efficient means that all available time is transformed into diplomas or certificates. When all the time is spent and utilised as expected, efficiency is 1.

Efficiency may be  $> 1$  when students save time and spend less than the prescribed time on the course. A length of stay of  $< 1$  makes efficiency  $> 1$ , thus the relation between efficiency and length of stay is reciprocal.

Efficiency decreases when the success rate drops. The impact of a success rate of  $< 1$  depends on the length of stay of students that do not qualify. If a fraction of 0.2 of students do not qualify and fail their final examination and all students leave school after that, their length of stay is 1. In this case, the students who fail reduce efficiency by 0.2.

The flexible provision of programmes will depend on many organisational matters, i.e. pathways, levels, intake and performance assessments, and processes of course.

All these provisions may result in an appropriate streaming of students, which may contribute to a high success rate, in combination with a short length of stay. In a school with flexible programmes, students demanding a shift of specialty, pathway or level may be coached effectively. They may be guided to a new learning place without delay and continue their studies with little loss of time and a boost to their motivation. These provisions may also result in an appropriate streaming of students and a high success rate, in combination with a short length of stay. Internal flexibility is perceived as the key to efficiency (Geerligs, 1999; Nijhof & Streumer, 1994; Nijhof, Kieft & Van Woerkom, 2002). Efficiency is the inevitable result of internal flexibility – flexibility is not necessarily the only cause of efficiency. Figure 7.1 summarises the approach to flexible provision of programmes in interactive VET and the indicators to monitor the effects.

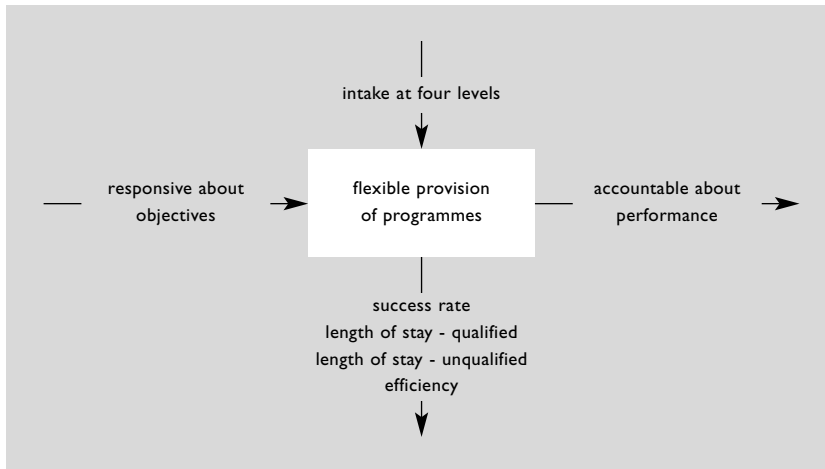


Figure 7.1: Indicators of internal flexibility of interactive VET

### 7.1.2 The algorithms of the indicators

What model would provide a methodological basis for the measurement of internal flexibility? Such a model should compare course years per student (the time prescribed for a course) with school years (the total time spent in school). The study load for diplomas should be calculated in hours; at a lower aggregation level, the calculation may be based on study load for certificates. However, this is not possible at present in the Netherlands, because most schools do not provide this level.

A course takes roughly 2, 3 or 4 years for level 2, 3 and 4 courses respectively in MBO. The number of school years differs between graduates, because of the variance in success in subsequent years. Between one school year and the next, a student could move on to the next course year, or a) repeat the course year, b) leave school c) with or d) without a diploma (Kooy, 1984, p.20).

The career of a student within the qualification system can be monitored using this algorithm. Figure 7.2 shows the progression from the first course-year: first school-year ( $t.t$ ) to the second course-year: second school-year ( $t+1.t+1$ ) – a pass – or to the first course-year: second school-year ( $t.t+1$ ) – a fail.

Students may not take more than 6 school years to complete a four-year course, since in most schools students are not allowed to repeat more than two course years. Data collected over a period of six years provides detailed information about the school careers of students of a certain cohort.

The diagram as presented can be filled with absolute data (the actual number of students) or with relative data (the fraction  $<1$  and  $>0$ ). The sum of the relative data in the squares of a completed diagram gives the average total length of stay ( $L$ ). The relative number of students with a diploma is also available for a completed diagram (Kooy, 1984).

The relative success rate ( $S$ ) can be calculated by dividing the number of all qualified students  $c$  of a cohort by the number of students that started off in  $t.t$ .

The relative length of stay of qualified students ( $L_q$ ) (in table 7.1) is calculated by dividing the sum of years in the system of the qualified students by the product of the number of qualified students and the prescribed course length.

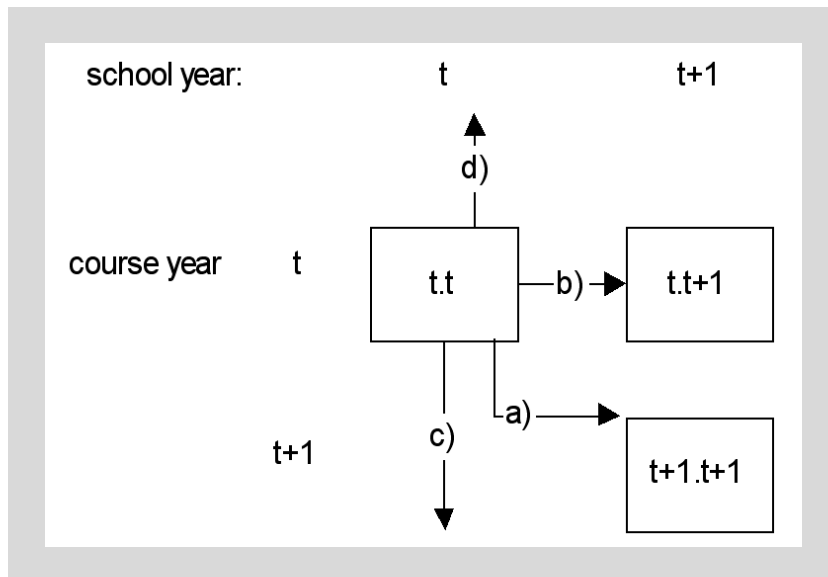


Figure 7.2: Student streaming in 1st school year (Kooy, 1984)

The relative length of stay of nonqualified students ( $L_{n-q}$ ) (in table 7.1) is calculated by dividing the sum of years in the system of these students by the product of the number of nonqualified students and the prescribed course length.

Relative efficiency (E) is the product of the number of qualified students and the prescribed course length, divided by the total of school years of the cohort.

Table 7.1 gives an overview of the algorithms of four indicators (Geerligs, 1999; pp. 252-253).

Indicator	Quotient
Success rate, S =	$\frac{\text{Qualifications}}{\text{First entries}}$
Length of stay – qualified, $L_q$ =	$\frac{\text{Actual length of stay – qualified}}{\text{Qualified * prescribed course length}}$
Length of stay – unqualified, $L_{n-q}$ =	$\frac{\text{Actual length of stay -not qualified}}{\text{Not qualified * prescribed course length}}$
Efficiency, E =	$\frac{\text{Qualified * prescribed course length}}{\text{Actual length of stay of all entries}}$

Table 7.1: Algorithms to calculate indicators of internal flexibility

### 7.1.3 Ways to calculate the indicators

Depending on the nature of the available data sources and the requirements for indicators, two principally different approaches to internal efficiency are possible. Many modifications to these two ways may be practised.

#### **1. THE COHORT REPRESENTATION**

The data to feed the algorithms are taken from sources that monitor all the characteristics of student streaming after entry, as depicted in figure 7.2. Here, the source contains information about many school years. In addition, the performance of students in subsequent school years is linked with unique student numbers. As a result, the streaming from a) up to d) in figure 7.2 in each school year can be assigned to any one student concerned and to his/her whole school career. When all these data are available, the indicators can be calculated as described in table 7.1.

#### **2. THE CROSS-SECTIONAL REPRESENTATION**

The cross-sectional approach is a calculation of indicators with data from one school year. The data are aggregated to a certain level, based on the number of students registered for first entry, the numbers of students in each course year, and the number of students leaving school both with and without a diploma.

The next section describes some modifications to these two approaches, as practised in past decades in the Netherlands.

## 7.2 The practical use of the indicators

The ways internal efficiency has been calculated in the past thirty years are in most cases based on success rates (Van der Velden, 2001). In the next sections, we elucidate the development of the indicators that combine success rate (S), length of stay (L), and efficiency (efficiency – E – is the combination of S and L, see table 7.1). From a policy and a government point of view, the choice of this combination is a necessary one. To explain this, we recall the evaluation question. “Do students attain a qualification in a reasonable time?” A small part of educational funding is linked to the attainment of a diploma (the S-indicator); the major part is linked to the number of registered students – thus to ‘reasonable time’ (the L-indicator). The S and L-indicators, and their combination E, enable the spending of tax money to be monitored. This explains why it is not sufficient to analyse only the success rate (S).

### 7.2.1 The CBS monitoring of Dutch VET

Success rate and ‘cost-benefit ratio’ for Dutch VET is monitored by the CBS (Central Bureau of Statistics (1990)). The data are based on measurements and calculations from random samples of student populations in cohorts. The CBS cohort is not a true cohort as described in 7.1.2, since it is a sample. CBS cohort data have been collected since 1975 and results were published until the school year 1988.

The CBS approach differs in two ways from that described in table 7.1. First, the length of stay of qualified and nonqualified students is not separated. Second, the value called a *cost-benefit ratio* is the reciprocal of efficiency, as described in table 7.1. A cost-benefit ratio of  $< 1$  is favourable, and a ratio of  $> 1$  is not.

The cost-benefit ratios in commercial VET (*MBO(C)*), technical VET (*MBO(T)*), and agricultural VET (*MBO(A)*) between 1984 and 1988 are given in figure 7.3. The ratios of Dutch VET varied between 1.25 and 1.90 and were fairly constant within the sectors. The cost-benefit ratio for agricultural VET was the most favourable, and varied between 1.25 and 1.40 in the years from 1975 to 1988. This means that in agricultural VET about 25% of the funded school years are lost through unqualified school-leaving or repeating school years (figure 7.3).

### 7.2.2 The analysis of effects of dualisation and the qualification structure

A second application of indicators is by Geerligs (1999, pp.235-270). In his analysis of the design of a responsive agricultural VET between 1989 and 1992, he analysed the development of efficiency as a result of two important interventions. The first intervention was the incorporation of a substantial work-based component in all courses in 1990: this is called dualisation. The second was the introduction of competence-based educational objectives in 1992.

The differences between this analysis and the CBS monitoring are the following. First, the Ministry of Agriculture collects data annually about student performance under a code number in agricultural VET. This is a complete cohort. The data are stored in a central electronic database: the Agricultural Register started in 1986<sup>29</sup> and contains information about true cohorts. Second, for the calculation of indicators, a distinction is made between the length of stay of qualified and nonqualified school-leavers.

The development of the success rate as described in table 7.2 is an example of the quality of information that can be derived from true cohorts. It will be elucidated below.

In the late 1980s, European levels (EU decision of 16-07-1985, 85/386/EEC) for VET were introduced into Dutch agricultural education. Level 2 is operator, level 3 supervisor, and level 4 manager. Students enter the courses with specific entry levels to match their abilities and course requirements.

In conventional agricultural VET ('87-'89), the success rate was 55% at level 2, 68% at level 3 and 71% at level 4 entries for qualification at the level of entry. These are the data in bold type in the diagonal in columns 3, 4 and 5. Hardly any qualification is observed at higher or lower levels than the level of first entry.

In 1990, a substantial work-based component was introduced. After the introduction of the work-based component ('90-'91), the indicator shows a significant decrease in the success rate. Students at lower levels seem to suffer more from the introduction of the work-based component than do students at higher levels.

Then in 1992, a new qualification system was introduced. This competence-based structure facilitated the attainment of qualifications at higher and lower levels. After the introduction of this new qualification structure ('92), the indicators showed a recovery in the total qualification score.

<sup>29</sup> For dual VET, recording did not start until 1993.



Remarkably, the recovery was realised at levels other than the level of entry. The qualification structure may have improved the internal flexibility at once.

The second example is the analysis of the length of stay of students that leave school with or without a diploma (n/y in table 7.3). In the difference dual-old column, all the indications are negative. This means that the stay at school of all students was relatively shorter after the introduction of a considerable work-based component. In the last two columns, again all indications are negative, which means that the length of stay of students again decreased after the introduction of the new qualification structure.

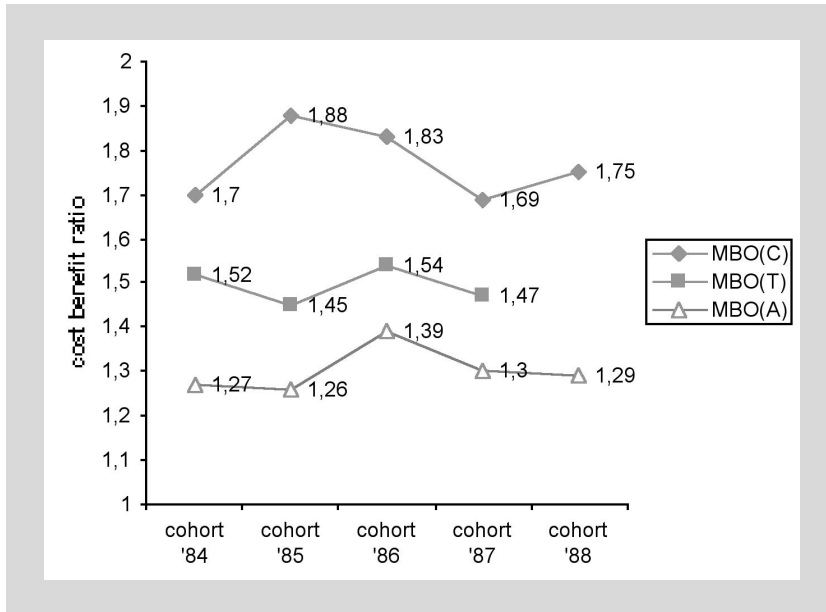


Figure 7.3: Cost-benefit ratio in Dutch VET (CBS, 1990)

	Conventional agricultural VET (87-89): 'old'				Introduction of a work-based component (90-91): 'dual'				Difference Dual – old, at entry level	Qualification structure (92): 'QS'				Difference QS – old, at entry level
Diploma level:	tot.	2	3	4	tot.	2	3	4		tot.	2	3	4	
Entry level:	%				%					%				
All schools	72	4	31	37	65	6	27	32		70	7	29	34	
Level 2	55	55	0	0	44	41	3	0	-14.1**	54	43	10	1	-12.6**
Level 3	70	0	68	2	64	0	58	6	-10.3**	70	4	60	6	-7.6**
Level 4	78	0	7	71	72	0	10	62	-9.0**	75	0	14	61	-9.7**

Table 7.2: Comparison of the success rate in Dutch agricultural VET between '87 and '93 (Geerligs, 1999)

Notes: \*  $\alpha < 0.05$ ; \*\*  $\alpha < 0.001$

	<b>Conventional agricultural VET (87-89): 'old'</b>	<b>Introduction of a work-based component (90-91): 'dual'</b>	<b>difference</b>	<b>Qualification structure (92): 'QS'</b>	<b>difference</b>	<b>difference</b>
	<b>Diploma: n/y</b>	<b>Diploma: n/y</b>	<b>Dual-old</b>	<b>Diploma: n/y</b>	<b>QS (92)-old</b>	<b>QS (92)-dual</b>
All schools	0.69/1.09	0.67/1.08	-0.03*/-0.01*	0.61/1.04	-0.09**/-0.06**	-0.06**/-0.05**
Level 2	0.83/1.07	0.83/1.10	-0.01/-0.04*	0.74/1.09	-0.10**/-0.03	-0.09**/-0.01
Level 3	0.69/1.13	0.65/1.11	-0.04*/-0.02*	0.64/1.08	-0.05*/-0.05**	-0.01/-0.03**
Level 4	0.64/1.07	0.57/1.06	-0.07**/-0.01	0.52/1.00	-0.12**/-0.08*	-0.06**/-0.07**

Table 7.3: The length of stay in Dutch agricultural VET between '87 and '93 (Geerligs, 1999)

Notes: \*  $\alpha < 0.05$ ; \*\*  $\alpha < 0.001$

The last example is the combination of the two indicators. The success rate multiplied by the length of stay results in an indicator of efficiency (table 7.1). This indication is made tangible by a calculation of the actual costs of diplomas issued. The point of departure is that a school year costs \$ 4,600 per annum per student.

<b>All schools:</b>	<b>Conventional agricultural VET (87-89): 'old'</b>	<b>Introduction of a work-based component (90-91): 'dual'</b>	<b>Qualification structure (92): 'QS'</b>
Level 2 – 2 years	\$ 15,970	\$ 19,910	\$ 15,780
Level 3 – 3 years	\$ 19,660	\$ 20,300	\$ 18,780
Level 4 – 4 years	\$ 23,060	\$ 23,510	\$ 21,520

Table 7.4: Costs to qualify entries in Dutch agricultural VET between '87 and '93 (Geerligs, 1999)

Table 7.4 shows that the introduction of a work-based component in 1990 increased the costs of diplomas; efficiency decreased. The introduction of the qualification structure in 1992 reduced diploma costs considerably.

The three examples show that true cohorts, here with the success rate, length of stay and diploma costs indicator, enable the identification of clear effects of interventions in the years they were put into effect. In this case, the indicator proves – ten years after the first interventions – first a marked drop in the success rate in 1990, and then a strong recovery in 1992. The success rate at different levels also shows an increase in qualification at levels higher or lower than the level of first entry – flexibility of programmes. The dramatic negative and positive quantitative effects of interventions at a national level on the performance of schools (success rate and also flexibility) are proven.

### 7.2.3 The WEB evaluation (I)

The knowledge about indicators described above was applied to measure internal efficiency and flexibility after introducing the new VET Act in 1996. The effects of the Act were evaluated in 2000.

The setting of this study, however, differs radically from the examples above, because there are no cohort data for the occupational sectors of the Ministry of Education. The reasons are that: 1) student performance is collected annually at an aggregated level, as a basis for funding, and 2) in 2000, a minority of students that entered VET under the 1996 Act left the system; for a 4-year course, it takes 6-8 years before most students have left education. The second point will come to an end in time, but for the time being, it is a problem. The first point could be solved with better monitoring of student performance at individual level.

For the evaluation in 2000, the question remained: 'What can be concluded from the available school-year information?' The aggregated data were obtained from CBS and from the Ministry of Education. As an example, data available for one occupational sector are listed in table 7.5. Is it possible to reconstruct a cohort with these data from which success rate and length of stay can be obtained?

<b>Aggregated data</b>	<b>1st course year</b>	<b>2nd course year</b>	<b>3rd course year</b>	<b>4th course year</b>	<b>Diploma</b>	<b>Total</b>
Enrolled students:	22,804	21,016	17,384	15,906	13,375	77,110

Table 7.5: The 4-year technical VET course 93/94, available data

A simulation model was built, in which the following variables could be manipulated: the chance that a student would move up, repeat a year, make a sideways entry (due to upstreaming or downstreaming, or to a change in course or school) and the number of first entries. It appeared that many different realities could be hidden behind the representation of table 7.5. In table 7.6, one possible reality is shown. This is a school without halfway entries and without nonqualified school-leavers. Everyone that does not move up repeats the year.

<b>Assumed variables</b>	<b>1st course year</b>	<b>2nd course year</b>	<b>3rd course year</b>	<b>4th course year</b>	
Chance of moving up	0.60	0.64	0.77	0.85	
Chance of repeating year	0.40	0.36	0.23	0.15	
Sideways entries	0	0	0	0	
Nonqualified School-leaving	0	0	0	0	
First entries in 1st course year					13,600

Table 7.6: The 4-year course technical VET 93/94, simulation maximum repeating of year

From the chances calculated in the simulation in table 7.6, a cohort results, which is shown in table 7.7. Here, it takes 11 school years to empty the cohort. It is obvious that a cohort in which repeating a year does not occur will empty very soon – in the case of a four-year course, after 4 years.

<b>The simulation (index of entries in the 1st course year)</b>						
<b>Cohort build-up</b>	<b>1st course year</b>	<b>2nd course year</b>	<b>3rd course year</b>	<b>4th course year</b>	<b>Diploma</b>	<b>Non-qualified leavers</b>
1st school year	100					
2nd school year	40	60				0
3rd school year	16	45	38			0
4th school year	7	26	38	30		0
5th school year	3	13	25	34	25	0
6th school year	1	6	14	25	29	0
7th school year	0	3	7	15	21	0
8th school year		1	3	8	13	0
9th school year		0	2	4	7	0
10th school year			0	2	3	1
11th school year				0	0	1
<b>Total</b>	<b>168</b>	<b>155</b>	<b>128</b>	<b>117</b>	<b>98</b>	<b>2</b>

Table 7.7: The 4-year technical VET course 93/94, a cohort built up through maximum repeating of a year

For the evaluation, a number of simulations were made using the school-year information. The indicators were calculated, based on these simulations (Geerligs, Lokman, van der Veen, 2001). In the simulation, the students' chances of first entry, moving up, repeating a year and sideways entries were manipulated to match the aggregated number of students in the 1st, 2nd, 3rd and 4th course years and the number of students with a diploma of, for example, all technical VET students in the Netherlands, as in the example above.

The simulations proved that many different scenarios match the aggregated data. Students can be brought in and kept in the system in many ways. The system fills with a substantial first entry, with a slight chance of moving up, with a large chance of having to repeat a year or with substantial sideways entries. Table 7.6 is just one of many possible scenarios. Before we show the effects on the scores of the indicators, we look into the modifications to the two main approaches to internal efficiency.

Many calculations of success rates are made based on data as presented in table 7.6. These are data about a school year. This calculation uses a cross-sectional approach. Table 7.6 is a representation of a cross-sectional approach, and table 7.7 shows a possible build-up of course years (with students in their 1st to 11th school year). We show the way in which a few very common calculations are made. In the first calculation, the number of qualified students is divided by the number in the examination year (figures from table 7.6). In the second calculation, the number of qualified students is divided by the

average size of the four course years (data from table 7.6). The third way is to divide the number of qualified students by all school-leavers (in our example, these two are the same). And the fourth way, the number of qualified school-leavers is divided by first entries. Table 7.8 shows the results in the middle column.

<b>Alternative algorithms for the calculation of a success rate:</b>		<b>Simulation: no school-leavers without a diploma</b>	<b>Simulation: very many unqualified school-leavers</b>
1	<u>Qualifications</u> Students in examination year	$\frac{13,345}{15,906} = 0,84$	$\frac{13,375}{15,906} = 0,86$
2	<u>Qualifications</u> Average of students in course years	$\frac{13,345}{77,110/4} = 0,69$	$\frac{13,375}{77,110/4} = 0,69$
3	<u>Qualifications</u> All school-leavers	$\frac{13,345}{13,349} = 1,00$	$\frac{13,375}{22,804} = 0,58$
4	<u>Qualifications</u> First entries	$\frac{13,375}{13,600} = 0,98$	$\frac{13,375}{22,809} = 0,58$

Table 7.8: Different ways to calculate the success rates based on two simulations

The number of enrolled students as shown in table 7.6 can also be realised with a chance of moving up of 0.92, 0.83, 0.91 and 0.84% in the 1st, 2nd, 3rd and 4th course year, and a chance of repeating a year of 0 in all four course years. This requires a first entry of 22,804 students. The number of nonqualified school-leavers in this case is 9,429. The same four calculations of success rate are applied to this second simulation. The scores are listed in the right-hand column of table 7.8. If a substantial sidestream is simulated, the alternative calculations behave in a different way.

There are two important conclusions, as follows. First, many different possible realities are hidden; it is not possible to predict which one is probable. Second, different calculations calculate different things.

Based on aggregated school-year data, very different scores can be calculated for indicators. Nevertheless, the different ways to calculate a success rate, often called diploma efficiency, are found in official evaluation reports. The way diploma efficiency is calculated in these reports depends on the available data. The availability of data often depends on the way student counts for funding are administered. The conclusion is that the calculation of reliable indicators is not possible with these data.

#### 7.2.4 The WEB evaluation (2)

As indicated above in 7.2.3, for the technical, commercial and care sectors the data are not available to make calculations, as has been done for agriculture (7.2.2). However, a cross-sectional approach can be made. Algorithm 3 from table 7.8 has therefore been applied to school-year data.

The WEB was put into effect in 1996, and data are presented about the pre-WEB period and about the early WEB period with articulated level 3 and 4 courses. The WEB levels are the same as (EU) levels 1

to 4. Table 7.9 provides data about the success rate of dual courses (work-based pathways) and full-time school-based courses.

From 97/98 onwards, the old pre-WEB courses became empty. From that time, the success rate of old courses increased, because the nonqualified school-leavers of the first years no longer appeared in the enrolled population. The reverse effect is observed in the new WEB courses. Here, the success rate is low, because in the first years some early qualifying students in the numerator do not weigh against the nonqualified school-leavers in the denominator.

In 98/99, the dual and school-based WEB courses at levels 1 and 2 in table 7.9 show a higher success rate than the pre-WEB courses at levels 1/2 in 94/95 and 95/96. The other scores are useless because of the emptying of old and filling of new courses. This is common in cross-sectional calculations. The 3 and 4-year level 3 and 4 courses did not yield qualified students before 1999/2000 and 2000/2001.

Table 7.10 provides an overview of the development of diploma costs. This has been based on a calculation with data from cross sections.

The table shows that in 98/99 the dual and school-based WEB courses at levels 1 and 2 scored lower diploma costs than did the pre-WEB courses at level 1/2 in 94/95 and 95/96. The other data cannot be used in a cross-sectional approach, because the old courses empty and the new courses fill.

A preliminary conclusion appears to be the following. The internal efficiency of courses at levels 1 and 2 improved after the WEB became effective. It is a problem, however, that the present data do not allow a calculation of length of stay. In addition, data collection is only possible in cross-sectional approaches to school-year data.

	<b>Level</b>	<b>94/95</b>	<b>95/96</b>	<b>96/97</b>	<b>97/98</b>	<b>98/99</b>
Work-based pathway	WEB 1				0.46	0.62
	WEB 2				0.24	0.56
	Pre-WEB 1/2	0.53	0.54	0.55	0.74	0.75
	WEB 3				0.36	0.79
	WEB 4				0.27	0.40
	Pre-WEB 3/4	0.54	0.57	0.47	0.80	0.87
School-based-vt	WEB 1				0.33	0.49
	WEB 2				0.14	0.57
	Pre-WEB 1/2	0.50	0.56	0.49	0.77	0.76
	WEB 3				0.06	0.36
	WEB 4				0.02	0.09
	Pre-WEB 3/4	0.68	0.73	0.71	0.83	0.93

Table 7.9: Cross-sectional calculation of success rate in school-based and dual VET (agriculture excluded)

### 7.3 Conclusion

In 2000, the quantitative evaluation of the effects of the WEB was unsatisfactory; the main reason for this was the poor monitoring. Data should be collected and made traceable, which means be connected with unique student numbers.

The evaluation, however, has taught us about the possibilities of different means of data collection and the problems that arise when attempting a proper interpretation.

#### 7.3.1 The use of indicators – advantages and disadvantages

The advantage of cohort representation is that a policy measure brought into effect in the year a cohort starts can be assigned fully to the performance of that cohort.

Another advantage is that the length of stay can be calculated, and as a result, the indicator for efficiency. This has been illustrated in 7.2.2.

A set of problems and disadvantages remains, which, however, are not specific to the cohort method. One disadvantage is that the indicators cannot be calculated before the cohort is almost empty. Empty means that students enrolling in the first school year left VET with or without a diploma, which might take several years. In the case of a four-year course, at least 6-8 years. This may be too long for a policy-maker.

Another disadvantage is the reference to length of stay. The definition refers to the prescribed course length; but is course length appropriate for students with different abilities? A related disadvantage is the assignment of prescribed course length to sidestream – students entering higher course years, for example, due to a high-level preparatory course.

	<b>Level</b>	<b>95/96</b>	<b>96/97</b>	<b>97/98</b>	<b>98/99</b>
Dual	WEB 1			1.47	1.01
	WEB 2			13.72	2.26
	Pre-WEB 1/2	1.97	1.58	1.56	1.69
	WEB 3			4.52	1.93
	WEB 4			5.06	3.69
	Pre-WEB 3/4	1.20	1.69	1.08	0.98
School-based	WEB 1			2.04	1.27
	WEB 2			20.80	1.84
	Pre-WEB 1/2	1.92	2.15	1.66	1.59
	WEB 3			21.16	3.39
	WEB 4			63.82	18.36
	Pre-WEB 3/4	1.40	1.46	1.40	1.37

*Table 7.10: Cross-sectional calculation of relative diploma costs in dual and school-based VET (excluding agriculture) – in which 1 equals the costs of the sum of the nominal course years*

In addition, the prescription of course length to upstream – for example, students that continue in a level 3 course with a pass in a level 2 course – is difficult. Should this student from a level 2 course and finishing a level 3 course get 5 years as a reference time (2 plus 3 years, the sum of both courses), 3 years (the time for the course at the highest level), or 4 years (something in between)?

#### **THE GLOBAL CROSS-SECTION PRESENTATION**

When fewer data are available, for example, the total number enrolled in one school year, the number of school-leavers and the number of diplomas issued, a global cross section may be calculated. This has been tested in 7.2.3 and is applied in 7.2.4.

The success rate can be calculated as a quotient of the number of qualified school-leavers and the total of school-leavers. This  $S$  is similar to the  $S$  in the detailed cross section. This  $S$  is often calculated in the Netherlands, but is misleadingly often called efficiency or diploma efficiency. We have not adopted this inaccurate typology. Indications of length of stay and internal efficiency cannot be calculated.

#### **THE DETAILED CROSS-SECTION PRESENTATION**

The cross section is a calculation of indicators with data from one school year. The data are not connected with students and may be aggregated to a certain level.

When the data of each school year are available, and also the course the students go to in the next course year, a detailed cross section can be calculated.

The pass rate is calculated for each course year (in a four-year course, for example,  $S_{1,2}$ ,  $S_{2,3}$ ,  $S_{3,4}$  and  $S_{4,d}$ ) and the product of these chances is the total success rate  $S$  of the detailed cross section. With the pass and success rates and the fractions of the students in the course years, the years spent in school can be assigned to qualified and nonqualified students – thus an absolute length of stay is calculated.

This calculation can also be made with cohort data (and this is a common practice in Dutch higher education). The disadvantages of this approach are similar to the cohort presentation – with the exception of the possibility of calculating actual data every school year.

The main disadvantage is that the indicators contain properties of a mixture of at least four entry years of students, and probably up to 7 or 8 years of entry. In such a dynamic context as VET, the different effects cannot be isolated (for example, effects of policy interventions, school development or changes in the labour market).

#### **THE CROSS-SECTION REPRODUCTION**

A data source may contain detailed information of one school year. For each student, the date and course of first entry in VET may be known. If so, a cohort presentation is not possible, but a cross section may be reconstructed. We know from experience that data from the previous and the following school year ( $t-1$  and  $t+1$ ) are needed to verify and correct for the sidestream and the upstream.

This approach is less reliable than the true cohort presentation and has all its disadvantages (except for the long period of data collection).

The method that can be chosen to calculate indicators of internal efficiency and flexibility depends more on the structure of available data and less on the requirements for use. The next section is about the practical use of these indicators in the Netherlands.



### 7.3.2 The normative question

The core of the normative question is the reference to the length of stay. This matter is relatively simple for students that enter the first year of a course with appropriate preparatory training. But what about those that enter who are under or overqualified? And what about those that enter in a higher course year – a sideways entry?

There are substantial numbers of students with nonregular entries. The reasons for change differ in HBO (higher professional education), MBO and VMBO (pre-vocational secondary education). Students change levels in MBO (between MBO-4, 3, 2 and 1). They change schools (in HBO, 7% of the population) or continue at lower levels, e.g. with sideways entries (HBO) and HAVO (upper general secondary education) in MBO-4 and MBO-3 courses). The educational ladder would be a possible solution: it might help to show the gain from streaming (figure 7.4).

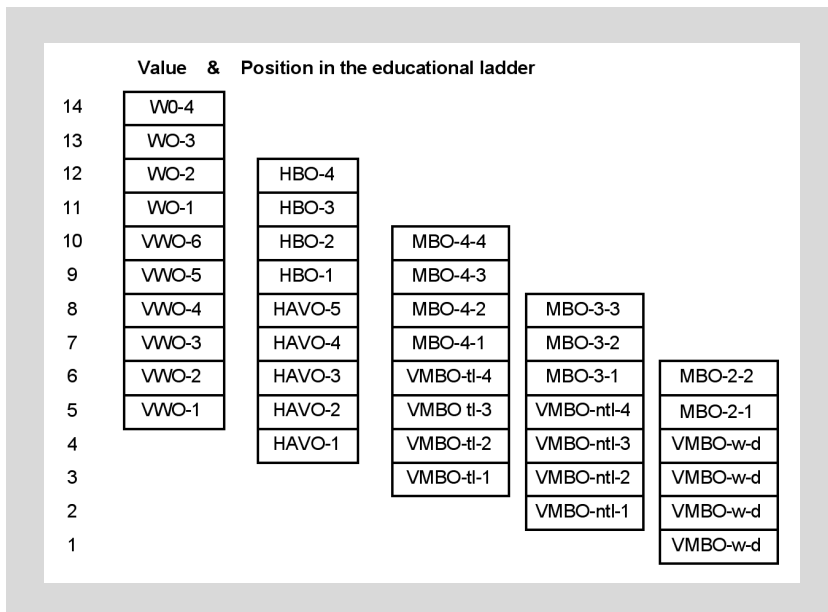


Figure 7.4: Educational ladder – elaboration from the model of Veenstra (1991) and Bosker (1990)

The model shows the regular streaming. Students from VWO (pre-university education) enter WO (university). Students from HAVO enter higher professional education (HBO or professional universities). Students from VMBO(tl) – the theoretical learning route, (ntl) – the non theoretical learning route and (w-d)- those without a diploma) enter MBO (levels 4, 3 and 2).

The figure is of help in interpreting nonregular streaming. For example, a student with a HAVO diploma enters an MBO level 4 course and gets a diploma in three years. At first sight, this is good, because the student takes three years for a four-year course. In the educational ladder, however, we see that the MBO level 4 diploma has a value of 2 points more than the HAVO diploma; thus the student took three years to make two years' progress. In a similar way, we can follow a student with a HAVO diploma

entering an *MBO* level 3 course and obtaining a diploma in one year. According to the ladder, this student did not gain anything at all.

According to the ladder, the students that continue on a level 3 course with a pass on a level 2 course can take two years for this upstream. We judge all these as proper approaches to qualification gain.

The educational ladder, however, cannot be used, because of lack of support in the field of education and in policy spheres. The ladder shows, for example, two values: the difference between a university diploma and an *HBO* diploma can be calculated. This is controversial and still in debate between universities and the *HBO* Council.

### 7.3.3 Practical problems

The practical problem elucidated in section 7.2.3 about the *WEB* evaluation remains when cohorts are reconstructed. Due to differences in the chances to move up, repeat a year, or enter different course years, the build-up of student populations in courses may differ.

In figure 7.5, an impression of a pyramidal build-up is given, with the first entries in dark grey and qualified students in their 4th year in light grey. The pyramidal build-up is the outcome of a school with a small chance of repeating the year for students that do not move up. It is common in Dutch *MBO(T)* schools. The anti-pyramidal build-up is common in schools with a large sideways entry, for example, in Dutch *MBO(C)* schools with entries of graduated students from *HAVO*.

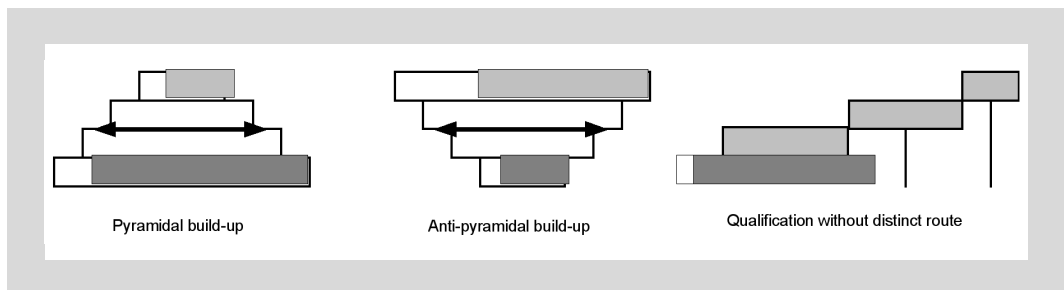


Figure 7.5: Build-up of the student population in the course years

We learned from the simulations that the calculation of common 'diploma efficiency' (qualified divided by students in the first school year) will deliver correct answers when the chance of repeating a year is 0. The average number of students in the course years (total of students divided by the number of course years) gives in practical cases a more reliable result (the arrow in bold type in figure 7.5). An alternative way of calculating the success rate from data in a reconstructed cohort is the quotient of qualified school-leavers/total school-leavers.

## 7.4 Discussion

The evolution of thinking about efficiency in the past two decades has had its ups and downs. CBS worked with a cohort approach between 1975 and 1988 and used the indicators of success rate and cost-benefit ratio. The strength of this approach is obvious, but few cohorts are available. Janssen (1990) utilises the available data and reports on diploma efficiency using calculations based on cross sections from the funding administration of the Ministry of Education. Den Boer and Meesterberends-Harms (1992) report on the dispute in defining indicators. Their conclusion is that cohorts are the only reliable source of data and recommend indicators like success rate and efficiency. When cohorts are not available, they work with reconstructed cohorts. Geerligs (1999) works with true cohorts, as administered in agricultural VET since 1986. He has improved the indicator set by elaborating the cost-benefit ratio into a length of stay of qualified and of nonqualified students, and a definition of efficiency. The WEB evaluation (Van der Velden, 2001) is another attempt to work with aggregated school-year data. Simulations, however, show the weakness of the data source for this purpose and also the varying results of the different algorithms for the indicators. The conclusion is that the core of the problem is a good understanding and recording of the dynamic streaming of students, and from this starting point, the discussion about indicators will be given greater focus.

The application of the unique student number will enable a much better understanding and recording of the streaming of students.

The normative question needs more discussion. This discussion may contribute to a more business-like approach to performance of education: considering costs and returns in the first place and not receipts and expenditure. Length of stay represents costs, and qualifications represent returns.

### THE MONITORING OF QUALIFICATION GAIN

One of the conclusions of the WEB evaluation was that the monitoring of efficiency needed to be improved. In 2002, the Ministry of Education demanded the calculation of the indicators as shown in table 7.1. The available data set is much more detailed than the set available for the WEB evaluation. Again, school-year information was available, but this time at student level. For each student, the dates of first entry, of passing an examination and of leaving school were available. Data were available for the school years 1999, 2000 and 2001 and the school's student number allowed student performance to be tracked over these years.

The length of stay was calculated from the entry and leaving dates. The data of 1999 and 2001 were used to correct the data set for 2000. The corrections to reconstruct cohorts from school-year information were quite substantial and were carried out in an advanced electronic program (Geerligs, Kops, van der Veen & Elfrink, 2003).

The monitoring of qualification gain is based on an interesting new view of vocational education and training. It is not the performance of the school that is the first point of interest, but the student's learning career in the vertical pathway from lower vocational education to HBO (vertical progression) (Commissie Boekhout, 2001). Of course, the collaborative efforts of community colleges and other institutions in the vertical structure are a prerequisite for the success of the student's learning career. Monitoring of the qualification gain (Geerligs, Kops et al., 2002, 2003) is based on reconstructed cohorts.

From 2004 onwards, all students in Dutch education will have a unique student number. This number will enable the monitoring of true cohorts. Data from this source might be used to calculate the

variables discussed, to predict the effectiveness of innovations like that of the WEB. With this facility, the internal flexibility, efficiency and school-to-work transition can easily be monitored for the benefit of the public system, the institutions, and the students.

## References

- Boer, P.R. den & Meesterberends Harms, G.J. (1992). *Het interne rendement van het leerlingwezen: een vooronderzoek*. Groningen: RION, Instituut voor Onderwijsonderzoek.
- Bosker, R.J. (1990). *Extra kansen dankzij school? Het differentieel effect van schoolkenmerken op loopbanen in het vwo voor lager versus hoger milieu leerlingen en jongens versus meisjes*. Proefschrift. Nijmegen: ITS.
- CBS (1990) *Indicatoren voor door- en uitstroom in het avo en het mbo*. Voorburg/Heerlen: CBS.
- Commissie Boekhoud (2001a). *Doorstroomagenda Beroepsonderwijs*.
- Geerligts, J.W.G. (1999). *Design of Responsive Vocational Education and Training, a reconstruction of a systems change in agricultural education* [Thesis Twente University]. Delft: Eburon.
- Geerligts, J.W.G., Jong, U. de, Velden, R.K.W. van der & Wolbers, M.H.J. (2002). Toegankelijkheid en doorstroom naar vervolgonderwijs en arbeidsmarkt. In: Houtkoop, W. & Wieringen, A.M.L. van. *De Omgeving van het Beroepsonderwijs*. Jaarboek 2001/2002 van het Max Goote Kenniscentrum. 's-Gravenhage: Reed Business Information.
- Geerligts, J. & Lokman, I. (2001). Intern rendement. In: Velden, R. van der (red.). *Toegankelijkheid, intern rendement en doorstroom* [Thema 4], pp. 57-66. Zoetermeer: Stuurgroep Evaluatie WEB.
- Geerligts, J., Kops, Y., Boer, P. den & Veen, F. van der (2002). *Kwalificatiewinst. Nulmeting*. Wageningen: Stoas.
- Geerligts, J., Kops, Y., Elfrink, J. den & Veen, F. van der (2003). *Kwalificatiewinst. Statistische Bijlage*. Wageningen: Stoas.
- Janssen, A.T.H. (1990). *Het interne rendement van het middelbaar beroepsonderwijs; een literatuurstudie*. Zoetermeer: Ministerie van Onderwijs en Wetenschappen.
- Kooy (1984). *Indicatoren van de doorstroming in het onderwijs*. Voorburg: CBS.
- Nijhof, W.J., Kieft, M. & Woerkom, M. van (2002). *Reviewing Flexibility*. Luxembourg: The Office of Official Publications of The European Union.
- Nijhof, W.J. & Streumer, J.N. (eds.) (1994). *Flexibility in Vocational Education and Training*. Utrecht: Lemma
- Veenstra, R. (1991). *Leerlingen-Klassen-Scholen. Prestaties en vorderingen van leerlingen in het voortgezet onderwijs* [Thesis Rijksuniversiteit Groningen]. Amsterdam: Thela Thesis.
- Velden, R. van der (2001). *Toegankelijkheid, intern rendements en doorstroom*. Evaluatie Wet Educatie en Beroepsonderwijs. Zoetermeer: OCenW.

# Section 4

Quality of the teaching and  
learning processes



## 8 Improving the quality of teaching-learning arrangements in VET

LOEK NIEUWENHUIS, REGINA MULDER & HENK VAN BERKEL

*This chapter presents the results of an evaluation study of the impact of legal measures on the quality of educational delivery in the Dutch Vocational Education and Training System (VET). The conclusion is that there is a great deal of quality to be realised in the Dutch VET system. At political and institutional levels, the official reaction is to create more and more detailed prescriptions to improve VET delivery. It is argued, however, that this reaction will turn out to be counterproductive, resulting in a retrograde move. In order to generate forward movement, community colleges should be supported in improving the professionalism of teachers, and especially of trainers in companies. Policy attitudes and behaviour should be changed from a prescriptive to a supportive approach to community colleges for delivering flexible and attractive VET.*

### 8.1 Attractiveness and consistency as criteria for quality: introduction

The Dutch Minister of Education (Tweede Kamer, 1999 (Dutch Lower House of Parliament)) formulated his vision of the quality of vocational education and training as follows:

*“Quality deals with what students learn and how students learn. Youngsters and adults should learn knowledge, skills and attitudes which ‘matter’, regarding functioning in personal, societal and occupational contexts. (...) besides this, quality means that learning is effective, takes place in an attractive and challenging situation, and is tailor-made for the student.”*

Quality is a notoriously ambiguous term. Following the trend in industry, higher education has chosen to base its performance measurement initiatives on the notion of quality (cf. Pounder, 2000). Satisfying consumer preferences, conformity to design specifications and the relation between excellence and price are all attempts to define quality. Pirsig (1974) is very sceptical: “Even though quality cannot be defined, you know what it is.”

Quality of education means different things to different people, depending on the stakes they have in the education game. What applies to higher education applies even more so to vocational education and training (VET): many stakeholders inside and outside the education system have their own specific preferences and special needs regarding the design and outcomes of VET. The government promotes

public interests, while trade unions and employers have different stakes in labour market processes through the articulation of job requirements and the absorption/recruitment of newly trained employees. Vocational education and training offers trainees pathways to employment and participation in society, and for teachers and college managers, VET presents professional challenges. From each perspective, quality has a different meaning.

Defining the quality of VET implies making choices. In line with the Dutch Minister of Education's view, the students' perspective – assuming student targeting for employment or self-employment through entrepreneurship – is the main perspective of this chapter. The EC memorandum (Commission of the European Communities, 2000) on lifelong learning stresses the importance of education as the starting point for a learning life, to enable people to adapt to the uncertain demands of the knowledge-based economy of the future (see also Mayer & Nieuwenhuis, 2002). Based on this perspective, the attractiveness of VET is the main criterion for educational quality. Attractiveness is defined as the degree to which VET motivates and prepares young and adult students for lifelong learning and stimulates choices directed towards occupational domains that are socially highly esteemed. In fact, society needs a fair distribution of graduates over all kinds of economic activities, varying from nursing to technical jobs and entertainment.

Attractiveness relates to both learning processes and learning contexts; it deals with educational organisation and with re-entry possibilities for early leavers and stresses the perceived relevance of course content. Defined in this way, attractiveness bridges the gap between students' interests and those of society, including the 'crude' interests of labour market players. At the same time, attractiveness stresses the need for flexibility in the design of VET systems and courses. Educational quality is delivered by professional teachers, designing tailor-made situated learning for a large variety of students and trainees.

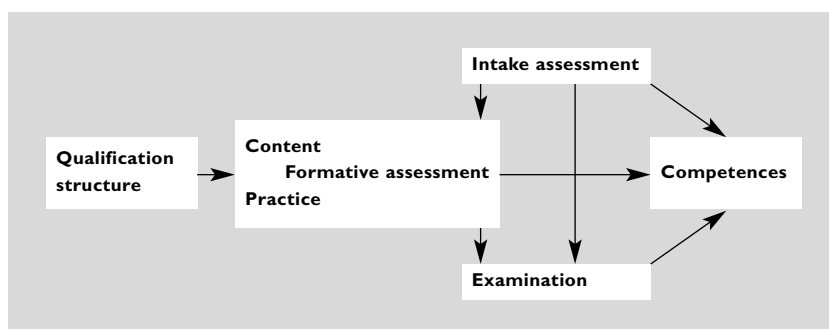


Figure 8.1: A model for the attractiveness of VET

Programme characteristics are the main instruments for realising attractiveness. This leads to a definition of two intermediate criteria for quality in VET: internal and external consistency of courses.

- external consistency refers to the degree to which the relation between input, throughput and output of the VET system is seen and understood by students. A high degree of external consistency implies that the socio-economic benefits of educational activities and investments are transparent to the students, which will increase their motivation. Competencies, as an output of the educational process, should be logically linked to the learning process and the qualification structure, by which



students justify their choice of VET. With a sophisticated course design, community colleges, companies and teachers have a great impact on external consistency;

- internal consistency refers to the degree to which the components of educational programmes are organised in a coherent way. Three main components can be discerned: content, practice and assessment. If these components are not designed consistently, attractiveness is difficult to achieve. In Figure 8.1, all the components of attractiveness have been brought together. Internal consistency deals with the relations inside the throughput box, whereas external consistency relates to the horizontal line between qualifications and competencies. Intake assessment (through Assessment of Prior Learning techniques, *APL*) and final exams measure the added value in terms of the individual progress of the student. This can be extended into many quality elements of vocational courses. Van Berkel (2000) identifies 25 quality elements (see Figure 8.2).

- Well-formulated attainment targets
- A connecting theme throughout the course
- Explicit practice policy
- Flexible adaptation to new developments
- Post-course delivery
- Cooperation with the occupational field
- Cooperation with other courses
- A well-defined vision of learning
- Development of self-directed learning
- Attention to course organisation
- Clear decision methods
- Priority to educational development above teaching
- Teachers as team players
- Theme-oriented instead of discipline-oriented
- Time frame
- Intake on prior skills and learning
- Quality control
- Teachers as pedagogic professionals
- Lifelong learning for teachers
- Apprenticeships for junior teachers
- Design based on learning styles
- Spread of work/learning load
- Level of assessment equals level of content
- Valid assessment tools
- Material support and tools.

*Figure 8.2: Programme quality elements (Van Berkel, 2000)*

The quality of vocational education depends on the extent to which community colleges, teachers and in-company trainers are able and willing to organise learning processes in a consistent way. Colleges are the pivotal actors and are responsible for the quality management of the learning processes and learning pathways of their students. Because of the dual character of VET – learning and work, colleges have to deal with external partners in the regional economy to reach their quality goals. On the other hand, these regional partners have a major stake in VET quality: the future labour force mainly depends on them. The quality of work-based learning contexts depends on this relationship. Unfortunately, these two interests are out of sync. The quality of the labour force is a medium-term general interest of the

region, whereas the quality of practical learning is a short-term individual interest. The prerequisites for educational quality – the incentive structure for individual companies to invest in the quality of work-based learning practice – are not optimally organised at local level (see also chapter 9). Institutional and legal arrangements should help to solve this problem and this is the main assumption of this study.

In conclusion, the quality of VET is operationalised as the attractiveness of the learning process, which depends on the internal and external consistency of educational design. Colleges are the main actors in the designing process, but are heavily dependent on external cooperation with regional and local companies. An incentive structure in disequilibrium – short-term investments in practical learning versus the medium-term general benefits of a well-qualified labour force (Finegold, 1991) – should be balanced by institutional (see section 8.2) and legal arrangements.

## 8.2 Assessing the impact of policy measures

It is not easy to evaluate the impact of educational quality as a side effect of the implementation of the new VET Act (1996) (see also chapters 1 and 2) while the policy goals of the Ministry of Education suggest a direct link between policy measures and teaching behaviour. This is too simplistic a model of policy reality.

Educational legislation deals with institutional and organisational conditions. Edquist and Johnson (1997) make a meaningful distinction between institutions and organisations. Institutions can be defined as the set of common habits, implicit and explicit arrangements, regulations and laws, on which relations and interactions between individuals and groups are built. Institutions are important for the supply of information inside a system, for the reduction in uncertainty and the regulation of conflicts and incentive structures. Organisations, on the other hand, are concrete groups of actors, with specified targets and goals, sometimes based on reified ways of transaction.

A socio-economic system can be seen as the interplay between institutions and organisations, as can the VET system. Each country and each economic sector has over the years developed its own set of institutions and organisations for VET. The origins of institutions for VET are rooted in two major societal systems: education and work. For VET, the government, both sides of industry and educational institutes have built an institutional system, deeply rooted in social, cultural and economic patterns. This makes VET systems difficult to change: institutions sometimes hinder systemic innovation in VET, because it is not only educational arguments that count but also socio-economic traditions and agreements. In order to have an impact, educational arguments should be compatible with this institutional system. Examples of strong institutions around VET are the legal frame around work and employment, collective labour agreements, recognised skill pathways, occupational identity and training traditions. Crouch, Finegold and Sako (2000) show that these institutions are closely intertwined in each national system. Legislation as part of the institutional system is more often seen as the finishing touch to complex system change than as its starting point. Legislation is more descriptive than prescriptive; imposing system change by law is a lost cause. This is an important conclusion for evaluation of the implementation of the Act. The evaluation should aim at issues like adequate canonisation of educational practice, allocation of responsibilities and authorities, adequate regulation of exemptions and conflicts, and avoidance of undesired side effects.

Administrative and policy processes are layered: legislation deals with processes at the meso-level, which, in their turn, influence processes at the micro-level. Figure 8.3 outlines this layered model. The Act deals only with the periphery of teaching-learning process, but claims to have an impact on the core processes. In reality, this relation has a two or three-step feature.

A main feature of the Act is the autonomy and self-regulation of colleges. It is a 'framework' act (see chapter 3). One side effect of this feature is the tendency of intermediate institutional actors to make up for the 'lack of regulations' by creating their own. When interviewing colleges about their increased autonomy under the new Act, they complain about the overload of regulations they are confronted with. How should one evaluate this process?

The main evaluation issues raised by the steering committee deal with the relation between legislation and the facilitation of autonomous colleges, delivering VET of high quality. Community colleges are responsible for organising good conditions for their teaching-learning processes, in cooperation with companies and other organisations that can provide practice for training. Around these colleges a shell of institutions has been built for validation of input and output measures and for social justification. The institutional shell delivers all kinds of supportive and prescriptive instruments for quality development. The qualification structure is an example of institutional instruments: employers, trade unions and the educational field formulate training goals, based on job profiles and other labour agreements. This qualification structure is not only the frame for course development, but also the source of assessment criteria (see also chapters 4 and 5).

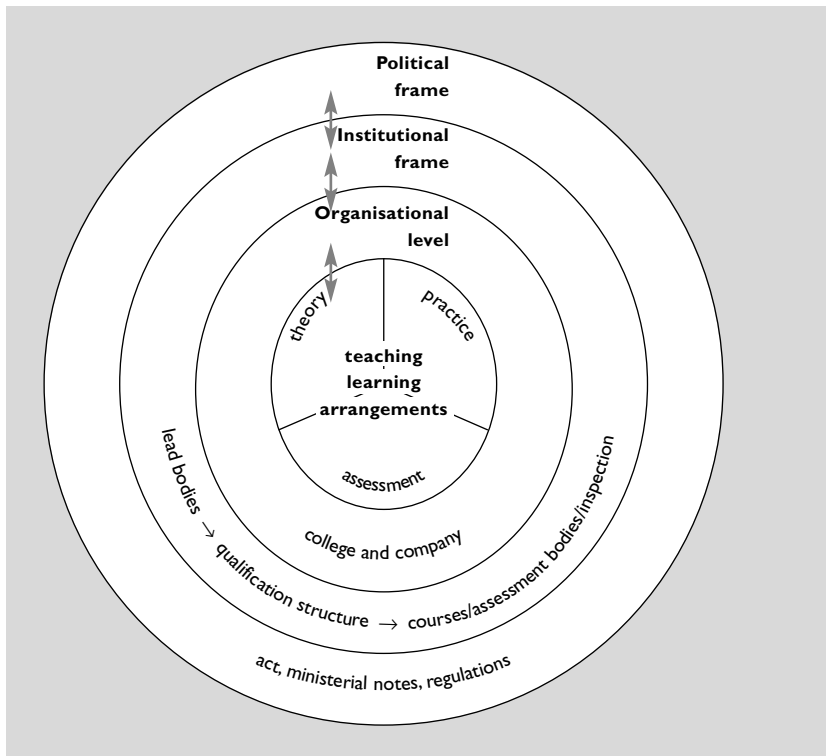


Figure 8.3: Policy layers in VET

To evaluate the impact of policy measures in complex social systems such as VET, we used a two-step procedure (the project is described extensively in a Dutch report: Nieuwenhuis, van Berkel, Mulder & Jellema, 2001). Firstly, we dealt with the relation between legal and institutional measures and the organisational behaviour and perceptions within regional colleges for VET (section 8.3). Secondly, we dealt with the impact of quality measures within the community colleges on the attractiveness and consistency of course supply (section 8.4).

### 8.3 The impact of legal and institutional quality instruments

The way in which community colleges perceive the impact of the Act on their delivery of quality was investigated using interviews. What support do they perceive from the Ministry of Education? What obstacles do they see? And what vision and strategies are they developing for their own job – teaching? To conduct this study, a start was made by analysing reports, articles and other documents. Based on this information, the managements of eight regional colleges and the teaching staff were interviewed. At the same time, interviews were held with representatives of eight lead bodies, responsible for the design of qualification structures (see Brandsma, chapter 4) and for the justification and assessment of examination procedures. This procedure enabled triangulated data on 16 courses from three system levels (institutional, organisational and professional) to be collected.

In the Adult and Vocational Education Act, several organisations and instruments to support VET quality are identified. At the institutional level, there are four major tools:

- the qualification structure: this defines courses, diplomas and certificates in VET, based on job descriptions. About 700 different qualifications (courses+diplomas) have been developed, established and registered in the *CREBO* (Central Register of Vocational Qualifications). *CREBO* decides to which courses community colleges are entitled and which are funded by the Minister. The intention and object of the Act was to build a coherent, accessible and transparent system, but the result is an overspecified proliferation. This proliferation has been caused by the tendency of employers and trade unions to specify jobs and functions at the lowest level and by the tendency of colleges to compete for students by offering very specialised courses. Although this proliferation leads to a management problem at teacher level, colleges have a large stake in it, because of financial incentives on student numbers. The responsiveness of the VET system is given form by adding new courses, not by redesigning existing ones. Proliferation is increasing and transparency decreasing, because of the jungle of overspecified study programmes on offer;
- the lead bodies for VET: these bodies are responsible for the interaction between VET and the labour market. They organise debate on the qualification structure and assess companies on the quality of work-based learning opportunities. In some branches of industry, lead bodies are powerful organisations. They deliver 'passports' to enter the sectoral labour market, by organising examinations, defining qualifications and admission to training companies. Their position is often strengthened by the administration of training funds and the delivery of course materials. In other branches, the lead bodies have to fight both colleges and commercial providers for their position, which greatly depends on the training traditions within the branches. In the Act, the position of lead bodies is legally secured as to their role regarding the qualification structure and the assessment of companies as learning environments (see also chapter 9);

- organisations for assessing examination quality: in the Act, a free market for assessing examination quality was opened. This open market turned into a bureaucratic system, with community colleges having to pay to have examinations and assessments validated and receiving poor service, and competitors vying with each other on prices – all this with little impact on the quality of examinations themselves. Even without evaluation results, colleges proved unable to deliver high quality examinations. Already during the evaluation study, all the institutional players and parliament enforced a new system of quality assurance for VET examinations: KCE (a national institute for examination quality) was established in 2001. From 2003 on, the quality of all VET exams will be certified by this new institute;
- supervision by Her Majesty's Inspectorate: the educational inspectorate is the executive for ministerial responsibility for assessing the quality of delivery of teaching by colleges. Colleges are visited regularly by inspectors, who make reports on educational quality and quality management. Each year, the Minister publishes the education report, dealing with the quality of the national education system. The first signals of inferior examination procedures were published in these national reports. The inspectorate has developed its own quality standards, which are much more detailed than is required by law.

Even at organisational level, the Act identifies several instruments and tools dealing with aspects of educational quality. In general, colleges are said to be autonomous in their education policies, but they have to apply at least four tools for quality assurance:

- the training and examination regulation: for each course, the colleges are obliged to deliver specific documents, in which the content, pathways and assessment procedures are described in detail;
- apprenticeship and trainee contracts with companies: with each company delivering work-based learning, community colleges should sign contracts in which learning opportunities and assessment procedures are defined;
- learning contracts with students: at the start of each course for each student, colleges should sign contracts with the students on their rights and duties during the course. This contract should be based on the training and examination regulations;
- self-assessment and two-yearly reports: every two years, colleges are obliged to present their results in a public report.

In this evaluation study, colleges were interviewed about the role of the institutional and organisational tools for quality assurance in the VET system. From these interviews, it was learned that the colleges are fairly positive about the impact of the Act on the quality of VET. Quality consciousness has grown immensely, as reported by the colleges, due to the emphasis on autonomy and responsibility. The visits by the national inspectorate and their reports support colleges in developing quality strategies. For many colleges, the inspectorate touched on several painful facts concerning the quality of VET delivery and the all-round professionalism of teachers. In particular, the lack of teachers' competencies for developing assessment and examination tools and the poor organisation of work-based learning were 'hot issues' in the inspectorate's reports. At all colleges, policies for quality improvement are being drawn up, although not all policies have reached the operational level yet. Inside the colleges too, discrepancies between different organisational levels became apparent.

Besides this fairly positive view, two main points of criticism were mentioned by almost all the colleges interviewed: overregulation and overformalisation. The institutional tools especially deal with overlapping fields of interest: for example, the inspectorate reports and the examination assessments both deal with the quality of examinations, sometimes ending up with contradictory recommendations

for the same college. The relation between student and community college is overformalised by contractual agreements at the start of learning pathways. The qualification structure, the regulation of training and examination and the learning contracts sweep away all the flexibility of the teaching-learning process, which is, in the end, counterproductive for educational quality. It also entails a huge bureaucratic workload for the colleges.

In the policy-making process, there is a tendency to design learning pathways 'in advance' at the drawing board. Based on forecasts of labour market requirements, both sides of industry, policy-makers and colleges invest a lot of energy in the design and construction of job-oriented curricula, in order to avoid any irregularities and to provide guaranteed quality. This approach, basically grounded in instructional system design, ignores all the uncertainties which are involved in vocational education, such as the dynamics in job requirements, the unpredictability of work-based learning, allocation and hiring processes on the labour market and – last but not least – the poorly-developed choices of jobs and studies by youngsters. To deal with these uncertainties, colleges, in fact, need room for adaptation and flexibility. This, however, has been swept away by the approaches to quality management based on a linear relation between students' wishes and their future labour market positions (external consistency is not a static feature of courses, but has to be developed or negotiated with each student!). Colleges are thus balancing the urgency of quality management against the requirements of flexible delivery. A lack of professionalism, both at managerial and teacher level, is muddying the waters in this balancing act and, at the same time, providing arguments for regulative policies at institutional level. A vicious circle is developing, in which low quality at college level elicits institutional and legal regulations, which prevents colleges from organising professionalism in order to deliver quality. To break this circle, linear and hierarchical policies should be changed into models for interactive system innovation, in which stakeholders at different levels see each other as 'partners in crime'.

## 8.4 **Organising attractiveness and consistency**

Section 8.3 provides information on the impact of legal and institutional instruments on the behaviour and perceptions of colleges. In this section, we assess the way colleges and teachers are organising attractive learning pathways through external and internal consistency. For this purpose, interviews were held with members of the education teams at the same colleges; in the next subsections, an overview of the results of these interviews will be presented.

### **TOWARDS PROFESSIONAL ORGANISATIONS**

The linear and regulatory tendency in VET policies, as described above, elicits a vertical learning network structure inside VET colleges (cf. Van der Krogt & Meijers, 1998). Advance planning and a blueprint production process form the impetus for such hierarchical structures. A top-down standardised production process on the shop floor is both the target and the result of these management strategies. Van der Krogt and Meijers (op. cit.) advise a shift towards horizontal and externalised learning networks, which seem more compatible with tailor-made teaching-learning arrangements. Many community colleges have followed that advice by delegating autonomy to smaller internal units regarding didactics. In many colleges, however, both movements operate simultaneously, causing paradoxes and hybrid working conditions for teams of teachers. Only a few colleges are able to deal with this dilemma consistently, but in most colleges there is no clear relation between management strategy and operational departments. Discussions on quality and educational vision

remain restricted to the management level: shared visions have yet to be developed. Most colleges mention this issue as a main point to consider.

#### **ORGANISING EXTERNAL NETWORKS WITH THE LOCAL LABOUR MARKET**

Two institutional tools are vital in the external networking activities of VET colleges: the proliferation of the qualification structure and the rigidity of the examination regulations, both appearing in the training and examination regulations and the learning contracts with students. The linking of education to work practices and labour requirements in companies is hindered by these two features. Many companies do not recognise themselves in the nationally approved structures and regulations, and job requirements are changing faster than can be dealt with by the lead bodies. Educational output therefore always lags behind workshop developments. To organise external and internal consistency, colleges and companies need more flexibility and ex-post evaluation instead of ex-ante regulations.

The quality of the formulation of qualifications varies greatly between the lead bodies: some have succeeded in formulating broad and flexible qualifications, whereas others have formulated very tight and narrow job requirements. This not only depends on branch characteristics, but the professionalism and innovativeness of the lead bodies themselves also play an important role.

For examinations too, a great diversity of practices exists and are emerging, depending on the expertise in the lead bodies, the training companies and the community colleges. Some national examination bodies have developed competence-based assessments, whereas others trust only traditional knowledge-oriented examinations. Some colleges choose a process approach like portfolio, in which their global procedure is assessed, whereas others use single-paper tests to be approved.

The conclusion is that the Act has had no clear consistent impact on the quality behaviour of colleges and institutional actors. The Act challenges all the players, but whether this challenge is taken up effectively or not depends on their expertise and professionalism.

In many colleges, the current quality policy is laid down in separate units/teams. A common educational vision is missing at college level in most cases: sometimes a vision of teaching and learning has not been developed at all, sometimes it has been developed centrally, but not shared with the operational levels in the organisation.

Great differences in quality exist, not only between, but also within, colleges. Some try to avoid institutional regulations; others are not able to deliver VET without them. The latter complain of both overregulation and a lack of regulations.

#### **ORGANISING INTERNAL CONSISTENCY**

The new Adult and Vocational Education Act gives colleges ample scope for their own educational design. They are allowed to develop their own 'pedagogic profile', based on an educational philosophy, from which they can develop pathways and learning environments. Most of the colleges do not use this opportunity fully, and do not even challenge partner companies to deliver good quality work-based training. Sometimes the examination regulations hinder the development of consistent pathways (for example, problem-based education, a holistic pedagogic approach does not fit into the assessment of fragmented qualification modules), but in most cases colleges do not cross borderlines. The proliferation of qualifications sometimes has a negative impact on the internal consistency of pathways, because of the rigidity of qualification definitions and the mismatch with job requirements in innovating companies. It is a challenge for the lead bodies and the two sides of industry to develop a robust qualification structure, in which the flexibility of pathways should be the driving force, instead of a

narrowly defined exchange value of qualifications (see Tomassini, 2000; Nijhof, Heikkinen & Nieuwenhuis, 2002).

A similar situation can be seen as regards the quality of in-company training and learning. Due partly to a lack of a common philosophy, colleges do not discuss the quality of training with the companies. Work tasks, training assignments and assessment of competencies is, in practice, left to the trainer on the shop floor, without any guidance, discussion or guidelines based on or geared to the in-school educational processes. Collaboration with the companies is evolving quite slowly; there is still so much quality – in the sense of internal consistency – to be realised. The lack of development of consistent tools for intake, formative and summative assessment is giving serious cause for concern. Tools for the integral assessment of competencies are rarely observed; the assessment of work-based learning is left to the trainers in companies and the examination regulations are not compatible with the assessment of full work processes. Teachers are also virtually untrained in the development of assessment and evaluation tools. This concern has led to external rules, imposed by institutional players (see chapter 10 for an elaboration of the quality of examinations in VET).

For students, the impact of the Act on attractiveness is not yet clear. On the one hand, it is said that the development of a qualification structure, because of its work-based philosophy, is an improvement – especially for those courses in VET which were school-based before the introduction of the new Act. On the other hand, the learning contract binds students to unclear choices, with the consequence of increasing dropouts. In general, however, teachers evaluate the introduction of the Act as positive for student motivation.

#### **OVERALL CONCLUSIONS ON ATTRACTIVENESS AND CONSISTENCY**

After five years of working under the new Act, the results of the evaluation studies are not very promising. Although the general quality of Dutch vocational education is quite high, the results are unsatisfactory on many points. The present quality of VET, as observed in this evaluation study, can be improved drastically. Colleges, both at management and at teacher level, are attempting many activities to improve, but there is still a long way to go before a consistent and attractive VET is delivered. A poor interplay between institutional and organisational actors is hindering the effective development of VET for the local labour markets. This is especially the case for issues around work-based learning and integrative or holistic assessment of competencies. Although colleges depend on institutional conditions, management has the autonomy and responsibility to organise a professional learning climate. The professionalism of teachers, embedded in a clear and shared philosophy on teaching-learning processes, is an important lever to establish a quality improvement culture.

### **8.5 Conclusive remarks**

The main conclusion of this study is that the policy concept of the new Adult and Vocational Education Act is no longer compatible with the requirements of a knowledge-based economy. The Act is built on the premises of planning, prescription and forecasting skill formation. This belief stems from the industrial work paradigm, which emerged in co-evolution with a Fordist institutional system, like full-time employment, clear occupational assignments and a well-established career pattern over a worker's lifetime, corresponding to the concept of a guaranteed job for life. Young people went to school, got a job and often did the job for much of the rest of their working lives. Worker networks and trade unions



in this system were organised to protect the security of these lifetime jobs and to build social welfare programmes around them. Education systems in this context have been used not only to deliver cognitive skills, but also to function as a screening device, steering children from various socio-economic backgrounds into appropriate levels of education that made them eligible for appropriate jobs. This industrial VET system was able to work reasonably well for decades. It was built on jobs that were mostly semiskilled and changed little over time. The system was stratified, but could provide security and increasing wages, even to those with a basic education only (Carnoy & Castells 1997, 36; Mayer & Nieuwenhuis, 2002).

In a knowledge-based economy, the work paradigm has to change and move towards the recognition of unstable and unpredictable requirements, which demand a different steering concept for VET. Prescriptive educational policies should be altered to provide greater reliance on the flexibility and expertise of colleges to organise flexible pathways towards competence, in close cooperation with the local companies. The focus of Dutch policies for VET should therefore change from prescription towards facilitating accountable VET professionals and colleges.

At the same time, this study reports a great shortage of expertise within the colleges, both at managerial and teacher level. The quality of examinations especially is dramatically low, as is therefore the exchange value of qualifications. Community colleges have not been challenged to create responsiveness and flexibility in their organisations. Moreover, in the current political debate, both in government and between the two sides of industry and other stakeholders, the main reaction is to establish more and more detailed prescriptions to improve the Act. This study warns against this reaction, because it will turn out as a counterproductive and retrograde move. The challenge will be to improve the 1996 Act within a forward mode, which will change relations between institutional actors and organisational actors dramatically. Community colleges and companies should be seen as the primary, professional actors, and the institutional system should be facilitating them, instead of setting the rules.

The development of a system of lifelong learning in a dynamic knowledge-based economy is not simply a supplement to the education and training range of the colleges; lifelong learning implies a fundamental change in enterprise for the colleges.

Designing VET for a knowledge economy involves not only reorganisation of course supply but also a redesign of fundamental processes and culture. Such a shift in learning perspectives cannot be completed by VET colleges only. Tomassini (2000) shows that the industrial learning perspective is deeply rooted in the institutional system of VET. In the present VET system, colleges receive their returns based on efficiency in the industrial paradigm. Constructive learning processes are addressed to the workplace, and by doing that, the college and teachers can concentrate on instruction of the codified part of the curriculum. The current noncompetitive position on the 'student market' does not force colleges to invest in adult education: post-initial education takes only 5%-10% of the turnover of colleges. Course supply in adult education is restricted to traditional content. Due to the traditional incentive structure, colleges are not interested in innovation of the learning processes or the organisational visions behind them. Most of the discussion is directed at adapting external developments into the codified educational paradigm. VET is protected in the codified practices of an educational system developed in the late 19th and 20th centuries. Without a systemic debate or a paradigm shift at all levels of the educational system, the margins for innovative policies at college level will remain restricted.

An educational system, supporting innovation and learning within economic practices is not only a matter for community colleges. Such a system requires strategic design at all levels: legislation, institutional system, organisational design and redesign of the learning process itself. Quality is a matter of re-engineering the whole system.

## References

- Carnoy M. & Castells, M. (1997). *Sustainable Flexibility*. Paris: OECD-publications.
- Crouch, C., Finegold, D. & Sako, M. (2000). *Are skills the answer? The political economy of skill creation in advanced industrial countries*. Oxford: Oxford University Press.
- Commission of the European Communities (2000). *A memorandum on lifelong learning*. Brussels: CEC.
- Edquist, C. & Johnson, B. (1997). Institutions and organisations in systems of innovation. In: Edquist, C. (ed.). *Systems of innovation. Technologies, institutions and organisations*, pp. 41-63. London: Pinter.
- Finegold, D. (1991). Institutional incentives and skill creation; preconditions for high skill equilibrium. In: Ryan, P. (ed.). *International comparisons of Vocational Education and training for Intermediate Skills*, pp. 93-116. London: The Falmer Press.
- Mayer, K. & Nieuwenhuis, L. (2002). The competence of VET for the knowledge based economy. In: Achtenhagen, F. & Johns, E.G. (eds.). *Milestones of Vocational education and training; band II*, pp. 49-72. Bielefeld: W. Bertelsmann Verlag.
- Nieuwenhuis, L.F.M., Berkel, H.J.M. van, Jellema, M. & Mulder, R.H. (2001). *Kwaliteit getoetst in de BVE (Quality assessed in Dutch VET)*. 's-Gravenhage: OC&W/Stuurgroep evaluatie WEB.
- Nijhof, W.J., Heikkinen, A. & Nieuwenhuis, L.F.M. (2002). *Shaping flexibility in vocational education and training*. Dordrecht/Boston: Kluwer Academic Publishers.
- Pirsig, R.M. (1974). *Zen and the Art of Motorcycle Maintenance*. New York: Bantam Books.
- Pounder, J.S. (2000). Evaluating the Relevance of Quality to Institutional Performance assessment in Higher Education. *Evaluation*, Vol. 6(1), pp. 66-78; SAGE Publications.
- Tomassini, M. (2000). Knowledge dynamics, communities of practice: emerging perspectives on training. *European journal on vocational training*, 19, pp. 38-47. Thessaloniki: Cedefop.
- Tweede Kamer (1999). *Agenda BVE*. 's-Gravenhage. Kamerstukken 1998-1999, 26719.
- Van Berkel, H. (2000). *Goed onderwijs [excellent education]*. Maastricht: University of Maastricht.
- Van der Krogt, F. & Meijers, F. (1998). Kwaliteit in BVE-instellingen: eenzijdig of veelzijdig ontwikkelen [Quality in VET-colleges]. In: Kraayvangers, G., Hövels, B. & Meijers, F. *De WEB: van regelgeving naar pedagogische praktijk [The WEB: from regulation towards pedagogical practice]*. Amsterdam: Max Goote Kenniscentrum.

## 9 The quality of the apprenticeship system - new roles and tasks in work-based learning -

JOS FRIETMAN

*This chapter deals with the changes in responsibility between actors regarding the organisation of work-based learning. In other words, what did each actor do and to what extent has the quality of workplaces as learning places been affected? This depiction and the conclusions build on research into the quality of the organisation of work-based learning. Relevant information has been collected from lead bodies, community colleges and their counterparts in agriculture. Moreover, the quality of work-based learning is discussed and the perspectives of the various participants in this process are reviewed for each different educational sector. The conclusion is that the introduction of the new Adult and Vocational Education Act has left a vacuum in several places, because the expertise around work-based learning – counselling by the lead bodies – disappeared. Although some branches created transitional arrangements, where the lead bodies were still directly involved in the counselling of trainees, an overall loss of expertise cannot be denied. The fact that some divisions of community colleges are giving top priority to external counselling and the relationship with placement companies is a positive development. Employees are specially trained and qualified to operate as work-based learning counsellors. There are an increasing number of initiatives aimed at improving the cooperation between community colleges and lead bodies at a regional level. It remains to be seen, however, if these developments will be able to increase the overall quality of work-based learning.*

### 9.1 Changing roles and tasks

In the new WEB – the Dutch Adult and Vocational Education Act, work-based learning plays a much more prominent role in vocational education than before. The Dutch government and the two sides of industry fully support this development, as becomes clear in the policy documents ‘Workplace learning as a creator of opportunities’ (*Werkend leren is kansen creëren, 1998*) which explicitly deals with the improvement in the quality of workplace learning (Koers BVE, 2000).

The changes in work-based learning imply that representatives of the lead bodies are no longer responsible for counselling and guiding novices during their vocational practice. This task has been taken over by the coaches or trainers provided by the companies and the community colleges in both the school-based pathway and the work-based pathway or apprenticeship system (see chapter 2; also

chapter 4). The lead bodies remain responsible for the certification of a company as a training institution, and also play a role in improving the quality of traineeships.

The above-mentioned shift in responsibilities due to the implementation of the Act is essentially the origin of the following research questions:

- Which of the organisations involved in the certification of and logistics in work-based learning and the companies is responsible for which task? Is the indicated shift in responsibilities clear enough? Are these organisations doing what they should be doing?
- What implications do the new tasks and responsibilities have for the quality of work-based learning? Which organisations are attempting to improve its quality and how are they going about this?
- What does it tell us about the quality of managing work-based learning?

## 9.2 Work-based learning

The process of acquiring work experience and work process knowledge occurs in the daily routine of any job. This is the basic idea of learning by doing or learning on the job. Work-based learning, as institutionalised in the dual system, is learning on the job as part of a vocational education programme; it is one of the means that the vocational system has to realise certain educational goals. Like De Vries (1988), who limits this domain to work-based learning for pupils and students, this domain also applies to working practice. In modern secondary vocational education, however, work-based learning occurs in the *BBL* (work-based pathway) as well as in the *BOL* (school-based pathway). Both types of vocational practice are characterised by a specific relationship with the training company, which has a big say in the way work-based learning is organised.

Until recently, it was difficult to distinguish a clear line in most of the work-based learning programmes in the school-based pathway, in either the community college or the placement companies. Task books based on authentic professional jobs carried out in the company usually guided work-based learning in the work-based pathway, where the learning process is clearly embedded in production work. The attainment targets of the Dutch qualification structure, orientation to examinations, company coaching and external counselling by the community college offer more ways to control the educational process, although big differences between various companies and sectors do exist.

The *WEB* has brought about a shift in the responsibilities of the organisations involved in work-based learning. Representatives of the lead bodies are no longer responsible for the counselling of individual students during their traineeship. This task now rests for both the school-based pathway and the work-based pathway system with the coaches from the placement companies and with the supervisors or counsellors employed by the educational centres.

*(Work-based learning is carried out on the basis of an agreement (...). In the agreement the rights and duties of the various parties are laid down and consist of regulations concerning at least: a. (...) b. 'the guidance of the student' and 'the company carrying out the work-based learning takes care of the counselling of the students in this company')* In other words, the triangle, consisting of lead bodies, community colleges and the placement companies, has taken over the direct counselling task that used to be in the hands of the lead bodies. Due to this change, students have been moved from the centre of this counselling triangle towards a position on the axis between the community college and the company.

A more effective integration of work-based learning into education is taking place on the basis of the powerful learning environment in both work-based learning and the community colleges. Direct steering of workplace learning often causes problems. Practice should be more integrated into the curriculum, especially by better preparation and incorporation of the workplace experience in the educational process. Workplace experience should be seen as the educational phase, which is of primary importance to the key factors of any job. Preparation, counselling and student monitoring should therefore focus on this kind of knowledge.

The lead bodies are responsible for the legitimisation of the placement companies. The legitimisation of these companies is, in fact, an assessment of the current state of affairs. As far as quality improvement is concerned, it should be taken as a starting point for the work to be done. Lead bodies should possess relevant criteria in order to decide whether a company will be legitimised or not. At the time of writing, the lead bodies have already agreed on branch-specific certification regulations.

Apart from the question of certification, it still remains to be seen how efforts to improve the quality of work-based learning can be optimised. Because of their familiarity with the branches and their experience with dual education programmes, the lead bodies are recognised as the first organisations to turn to with respect to improvement in the quality of work-based learning.

### 9.3 The quality of internships

When the quality of work-based learning is considered, professional literature often divides work-based learning into different phases: the preparatory phase, the realisation phase and the evaluation phase. (cf. Frietman, Teerling & Swager, 1999). The preparatory phase consists of preparation of the individual employee and the individual placement company for a certain work process. The realisation of work-based learning is obviously a matter for those directly involved in the practical training: the community college, the company delivering internships, and the student. From the point of view of the study programme, the requirements resulting from the qualification structure are also an important issue. The translation of the programme requirements into a complex set of learning activities is the task of the company, the community college and the student. The evaluation of a traineeship focuses on the quality of the achievements of the student by both the company and the community college. Apart from the assessment of the individual student, the intake and placing of a student is also an issue.

#### 9.3.1 Stages of work-based learning

Taking these different phases as a starting point enables us to differentiate between the dimensions and issues which play a role in the quality of workplace learning. Student counselling is, without doubt, the key issue that determines the quality of work-based learning. A matrix featuring the actors in the 'counselling triangle' compared before and after the development of the WEB and workplace quality also makes it clear that student counselling is the primary determining factor.

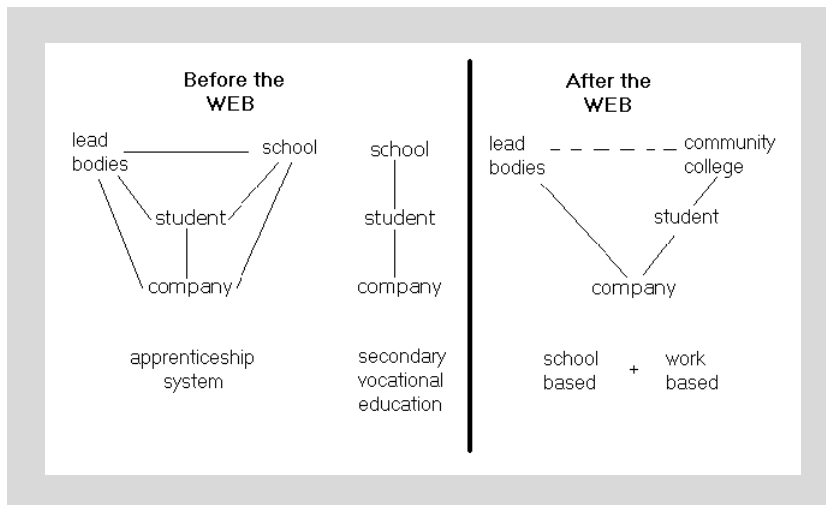


Figure 9.1: The 'counselling triangle' compared before and after the development of the Act (WEB)

### **Preparation**

The preparation of work-based learning is, in fact, an optimisation of the starting situation. The main point here is to gather sufficient knowledge of and insight into the requirements and possibilities of work-based learning. Preparing the right learning attitude in a student influences the success of work-based learning and the attempts to create more awareness by the company of the attainment targets and qualifications contribute to eventual success. The preparation of work-based learning should not be confused with the introduction to the company. This introduction, aimed at getting to know the employees of the organisation, is only part of the complete preparation phase.

Good preparation of work-based learning requires the joint efforts of the company, the community college and the intern. It is their common responsibility to ensure that everyone is sufficiently motivated, informed and equipped to turn work-based learning into a rewarding experience.

### **The relationship between student, community college and company**

Apart from the common responsibilities and tasks in the preparation of work-based learning, a good relationship between the three sides of the triangle is also a determining factor in the quality of work-based learning. Fine-tuning of the different learning situations, cooperation in matters concerning the curriculum and positive, open communication will stimulate student motivation, and thus enhance the learning effect.

### **The nature of the tasks and their realisation**

The nature of the assignments and their realisation has to match the attainment targets of the qualification structure. Since attainment targets are minimum requirements, it cannot be ruled out that apprentices will have to perform tasks at a higher level or tasks aimed at different educational goals. For students to become professionals, they are also required to carry out tasks for which they should be able to integrate knowledge and skills. These tasks should build on prior knowledge and a slightly higher level of student competence. Students should also learn how to deal with full flow or complete assignments; tasks requiring various skills like orientation, planning, deciding, realising, judging and evaluating.

Professional practice also requires students to encounter a realistic professional context, in order to get a good idea of what their future jobs will look like. A variety of real tasks will give them an insight into the different aspects of a profession.

### 9.3.2 Student support

The *counselling* offered by the companies and the community colleges is, without doubt, one of the most important factors in determining the quality of work-based learning. The quality of this counselling, from a pedagogical and professional perspective, is determined by the expertise of the trainers of the employers and of the community college and by their physical availability. The employer should consider the professionalisation of his employees in this regard of utmost importance.

Once an employee feels part of the culture of the company or any of its departments, the learning potential and the quality of work-based learning increases. This explains the fact that once a student feels part of a team, he or she interprets criticism as positive feedback, which results in a greater display of initiative. Social relationships at the workplace and the *company culture* could greatly enhance this learning behaviour.

#### ***Learning potential of the workplace***

This dimension deals with the question of whether the working situation and the tasks are challenging enough for competence development. In other words: do the assignments stimulate the learning process? Is there any room for initiative and peer learning? Are there enough learning sources available? Workplace learning presupposes that students can more or less determine their own learning process and that they can check their own ideas by putting them into practice. Workplace learning also requires learning sources to be available, ready for a student to use. Careful fine-tuning of learning on the job and formal learning events stimulate it. Learning on the job in this sense means putting into practice what has been learnt elsewhere.

#### ***The company relationship***

A real job relationship can only develop once a student has thoroughly experienced all the different aspects of the job. Examples are:

- the organisation structure (who is responsible for what?);
- the organisation culture (the unwritten rules about what is and what is not appreciated);
- the production process (each person's activities in relationship to the preceding and following actions);
- and the result of the production or the service provided (which products or services are the result of the work carried out by the organisation, what does the company provide a customer with?).

In other words, are the students really encountering all the different aspects of the work? Work-based learning should ideally be as similar to the real thing as possible. Real work is what is required.

#### ***Assessment***

A sound system for the assessment procedure is important to both the student and the workplace. Evaluation data can provide an important source for the quality analysis of workplace learning. This

analysis focuses on feedback on the student's learning results, the quality guarantee of the training and the return on the educational investment.

## 9.4 **Responsibilities and quality in workplace learning: actor's roles**

### 9.4.1 The community college

With the introduction of the new Adult and Vocational Education Act, the role of the teacher has changed in three different ways. As a teacher, he has changed from an instructor into a coach. The same development has taken place in the workplace and, as a study advisor, teachers have also become counsellors. From the point of view of the community colleges, a distinction should be made between the school-based pathway and the work-based pathway. In the work-based pathway especially, community colleges have been given new responsibilities. Supporting and coaching work-based learning for the school-based pathway used to be one of the tasks of the community colleges before the introduction of the new Act. For this pathway, counselling of work-based learning consists of a teacher visiting the company once or twice during the internship. This has been the tradition for a long time. For the work-based pathway, this is not yet the case: the community colleges are not happy with the current situation. This accounts for the frequency of counsellor visits and also for the study monitoring. Representatives from the community colleges received additional new tasks without sufficient financial compensation, means, time or capacity. Apart from this, the information provided to employers about the educational content, and the organisational and financial aspects of the work-based pathway not satisfactory, according to these representatives. The companies agree with this view, and add that this situation is due to the poor communication between the companies and the community colleges. The lead bodies confirm that the community colleges have not been able to carry out the tasks they previously did. There is still a big difference between the community colleges in the way that support of work-based learning has taken shape. The differences are not only visible in the organisation of the support given, but also in its measure and intensity.

Specific problems are apparent in the communication between employers, community colleges and lead bodies. Frietman (2000) shows that contacts between companies and educational centres still leave a lot to be desired. As a result, there is no complete picture of the progress students are making. The community colleges do not have a clear view of occupational practice either. According to Vrieze, Laemers, Hövels & Tiebosch (1999), better cooperation with the lead bodies is required, a lament that has been sounding for many years. Apart from this, it is also necessary to acquire more apprenticeship places.

The new role of teachers also deserves more attention. So far, insufficient attention has been paid to the professionalisation of teachers engaged in work-based learning, which may be due to the time-consuming mergers of community colleges, to which the new Act has given rise. The kind of support that community colleges provide is also an issue.

In order to be able to decide whether these problems with respect to work-based learning are transitional, it is important to find out if and to what extent this situation has improved in the past few years. An innovation monitor carried out by Vrieze and Laemers (2000) shows that the situation has ameliorated in the sense that many community colleges have increased their efforts to improve. The content has improved, which became clear from the increasing number of study manuals, task books,



etc. The organisation of coaching of work-based learning also improved as communication with the learning establishment increased. However, with respect to the frequency of visits to work-based learning, a lot of work remains to be done. Spokesmen for the community colleges indicate that innovations mainly concern the *organisation* of work-based learning guidance. There seems to be a trend away from extracurricular coaching as a job on site for many teachers towards specially trained work-based learning counsellors. The time spent on actual counselling has not increased, a claim that seems to be confirmed by the Innovation Monitor, although there are big differences in this respect between the various community colleges.

#### 9.4.2 The role of employers

The employer's tasks consist of curricular and pedagogical guidance during work-based learning, provided by special workplace supervisors. The employer also keeps in touch with the community college in order to monitor the practical programme the students are following.

Hardly any research has been done to investigate the way in which companies carry out their coaching or guidance. Some evidence suggests, however, that not every company is familiar with the prescriptions of the Act or with their ensuing responsibilities. Neither is the educational awareness of many companies – especially in small business – properly developed. The change in behaviour of the training companies, which the Act intended – more specifically the acceptance of joint responsibility for the practical training – has not been achieved in every company to the same level (Frietman, 2000). One example is the limited participation of workplace supervisors in training schemes that community colleges have created for their professionalisation. Vrieze, Laemers, Hövels & Tiebosch (1999) show that work-based learning counselling by the companies should be improved, advice that the Steering Committee took up as a precondition for training (see chapter 13).

Occasionally, there is good news about the quality of student guidance in work-based learning. It is not clear, however, to what extent the demand for personnel on the labour market plays an important role. Over the past few years, assessment of practical assignments has increasingly been taking place at the workplace, a development that increases the pressure on the availability, effort and professionalism of workplace supervisors in training companies even more.

#### 9.4.3 Information exchange between community colleges and placement companies

Research into the impediments to the work-based pathway clearly shows the need for better communication (Frietman, 2002). The impediments put forward by the placement companies virtually always indicate poor information exchange with the community colleges. As a result, the training companies cannot keep track of the educational progress their trainees are making, and the community colleges do not have a clear view of important modern developments in companies. Frequent contact between community colleges and companies is not only relevant to the education of their trainees. The different responsibilities as indicated by the Act – with community colleges responsible for the intake and placing of students in companies, although actual workplace guidance is the task of the workplace supervisor – implies that the community college should have a reasonable idea of the quality of the guidance and evaluation that the placement companies offer.

Teachers responsible for the coaching of trainees require communicative skills. Companies, on the other hand, should be accountable, if necessary. Many community colleges are lagging behind in this respect. This results from the tension between the individual coaching of trainees and activities aimed at the companies. Two target groups are involved in the guidance of placement students. Traditionally, all coaching has been directed at trainees. More and more community colleges have realised, however, that companies are a target group in their own right. This is not only because of the controlling function the community college has carried out since the introduction of the Act, but also from the point of view of Customer Relationship Management.

A sound relationship with companies is vital: continuity in the supply of internships, employees of the same firms who may be interested in additional courses the community colleges provide, and, finally, commercial activities in the field of professionalisation.

The trend towards specially trained and facilitated counsellors for internships at the community colleges was motivated by the realisation that interaction between the community colleges and the training companies should be improved. The improvements pointed out in the Innovation Monitor partly refer to the communication between community colleges and the placement companies. Some examples show that a number of colleges have developed initiatives aimed at better communication: information meetings for workplace supervisors, newsletters, etc. In this respect, there are also big differences between colleges.

#### 9.4.4 The role of the lead bodies for vocational education

Lead bodies (n= 21) are responsible for the quality of work-based learning and the professionalisation of workplace supervisors (Van Esch & Vrieze, 1998). They assess and certify companies as valid training institutions. If a company does not meet the criteria, the body suggests improvements. The professionalisation of workplace supervisors is an important issue, to which the lead bodies pay a lot of attention. Training courses and meetings for workplace supervisors and conversations between supervisors and companies are only some examples. Apart from this, the lead bodies also develop instruments for assessment of the quality of work-based learning.

The activities of the bodies regarding new tasks and innovation themes have mainly consisted of improvement in the quality of supervisors. The Innovation Monitor 1998/1999 (Vrieze & Laemers, 2000) shows that the bodies have made progress, regarding both the organisation and the quality of workplace learning. This was evident from the courses devised for the professionalisation of workplace supervisors and from the number of people who attended these courses. One problem remains, however; supervisors from small businesses do not participate as frequently as those from the larger companies. Insufficient information could be gathered concerning the other tasks of the lead bodies, for example, the accreditation and availability of sufficient companies.

## 9.5 Responsibilities and quality of work-based learning: the sectors

### **Technical education**

Before 1995, two main streams existed in the field of technical education. On the one hand, branches like the process industry, installation technology, the construction and building industry and the hotel and catering industry were early adopters of the view that the role of workplace supervisors in the coaching of students in apprenticeship training should be reduced in favour of the training companies. On the other hand, branches like the electrotechnical, automotive, and metal industries shared a far less pronounced view of the consequences of the Act. Some of them predicted huge problems if coaching were to be transferred to companies, or even community colleges (Onstenk & Frietman, 1996).

### **Retail and wholesale**

In the same period, both the administrative and the trade sectors expected to be confronted with major problems concerning the coaching of apprentices. They expected the supervisors to remain in charge. They also expected a gradual decrease in the frequency of contacts between supervisors and apprentices, which required a reorientation of the coaching process (Onstenk & Frietman, 1996).

### **Health Care**

Around the mid-nineties, the lead body in the health care sector was a forerunner with respect to the changing role of work-based learning counsellors. At that time, it was already focusing on the coaching of companies, rather than individual apprentices. The body considered the guidance of the apprentices a task for the companies themselves, i.e. the supervisors from the health care organisations. The relationship between supervisors and teachers would, in their view, become more intense in the near future. The body was confident that teachers working for the community colleges would take over the intermediary role from their counsellors (Onstenk & Frietman, 1996).

In the health care sector, the lead body and the sector funds joined forces to tackle the work-based learning problems with respect to both the quantitative and the quality issue of the guidance of apprentices during their work-based learning. As a result of the CAZ (Convenant Arbeidsmarktbeleid Zorgsector, which is explained in English in this line) agreement – an agreement on labour market policy in the health care sector – the incentives regulation for apprenticeship was issued, a regulation that enabled various regional partners to promote activities to improve the quality of work-based learning.

### **The Agro-food sector**

The new Act has not triggered major changes with regard to the responsibilities in work-based learning in the agro-food sector, compared to some of the other educational sectors. Workplace guidance has traditionally been a matter for the community colleges. The current situation at the Agricultural Training Centres is similar to the school-based pathway of the community colleges. In agriculture, there is a long tradition of work-based learning guidance. As in the community colleges, this guidance is not organised along clear lines. In some cases, teachers are coaching on the side. Other agricultural centres make use of specially facilitated employees commissioned with this task.

## 9.6 Summary and conclusions

The new Dutch Act has triggered a series of changes in responsibilities in the field of work-based learning. No longer are counsellors from the lead bodies responsible for the counselling of trainees in the work-based pathway. Coaches from the companies and the community colleges have taken over this role, for both the work-based pathway well as for the school-based pathway. In other words, in the coaching triangle, which existed between the lead bodies, the community colleges and the training companies, the direct coaching of apprentices has been moved away from the lead bodies to the community colleges and companies. As a result, the trainees have been moved from the centre of the triangle to the middle of the axis existing between the community college and the employer. The lead bodies are now responsible for the validation and accreditation of the training companies and for improvement in the quality of training places.

## 9.7 Tasks and responsibilities in practice

### COMMUNITY COLLEGES

Now that the Act has been in force for four years, it can be concluded that the formulation of the new tasks with respect to work-based learning still poses the community colleges some serious problems. These problems are related to the external counselling of apprentices and the relationship with the companies. This, however, is not a uniform picture by any means.

In the first place, there are big differences between community colleges regarding the system of guidance. The support has been organised in very different ways and not every college does what it should do. There are also big differences in the intensity the community colleges display when putting the coaching into practice.

Secondly, counselling is quite different for the school-based learning route and the work-based pathway. The coaching of apprentices following the school-based route was already there before the introduction of the Act. This is the reverse of the situation in the work-based pathway. This difference is still visible in the current situation of work-based learning counselling. Community colleges indicate that the coaching of trainees in the work-based pathway is still unsatisfactory.

Thirdly, it seems that the situation in both the health care and the agricultural sectors is generally a bit better than in the others. This may be due to the fact that their starting positions at the time of the introduction of the Act were also better in some respect. There was already a coaching tradition in the in-service programmes in health care. Community colleges in the agricultural sector already had a long tradition of trainee counselling, also for the work-based pathways. The current state of affairs suggests that guidance is not yet up to standard. For retail and wholesale, the only thing that can safely be concluded is that there are huge differences between the community colleges.

In order to answer the question of whether the problems concerning the workplace counselling of trainees could be characterised as transitional, it is important to determine if the situation has improved. And if so, to what extent and in what way. The Innovation Monitor (Vrieze & Laemers, 2000) indicates that there are indeed signs, which suggest more effort on the part of the community colleges.

However as far as the frequency of workplace visits is concerned, there is still a lot left to be desired. Information from the colleges confirms this view.

Community colleges, companies and lead bodies agree on the fact that the guidance of trainees by the community colleges falls short in many cases. As opposed to representatives from the lead bodies, spokesmen from the community colleges do not feel that the old situation should be reinstated. Their point of view is motivated by the fact that work-based learning is an essential and ever more important part of the educational process. The colleges should therefore be responsible. The integration of theory and practice will also improve, they claim, when the colleges are in charge of work-based learning counselling.

#### **TRAINING COMPANIES**

There is hardly any information available about the way in which companies carry out their counselling. Research suggests that placement companies are not familiar with the Act, its implications or resulting responsibilities. Many companies, especially in small business, are still insufficiently prepared to put these responsibilities into practice. There have been some positive developments, but it remains unclear if this situation is true for the whole sector. Over the past few years, there has been a clear trend for the evaluation of the tasks carried out by trainees to be done at the workplace, in spite of the extra effort this requires from the companies.

The improvements in work-based learning are partly due to *better communication between community colleges and companies*. Examples show that many community colleges have made an effort to organise a better exchange of information with employers, although there still remain differences. Problems brought forward by representatives of the companies are virtually always related to poor communication with the community colleges. As a result, the companies lack proper insight into the study progress of their apprentices. The community colleges, in their turn, fail to get the necessary picture of the latest developments in professional practice.

Not only because of the proper view of study progress is it important to intensify relationships with the placement companies, but correct execution of the responsibilities as laid down in the Act also requires an improved exchange of information. After all, the community colleges are responsible for the counselling of trainees, but the coaching of the trainees at the workplace is reserved for the counsellor of the placement company. These responsibilities require the community college to have a good view of the quality of placement coaching. This situation also demands that the employers, if necessary, be accountable for this responsibility. For many counsellors of the community colleges, this is still a bridge too far, since a good working relationship with the placement companies is vital from the perspective of acquisition. After all, colleges depend on the companies for their supply of placements. Partly because they realise the importance of a sound relationship with the placement companies, a clear shift is noticeable at the colleges, where more and more specific counsellors are employed, instead of teachers who are practising counselling on the side.

#### **THE LEAD BODIES**

Research indicates that the lead bodies of vocational training are successfully improving the organisation and quality of work-based learning. This is, for example, evident from the professionalisation courses that have been developed and from the number of counsellors that register

for these courses. Supervisors from small business, however, do not readily follow these courses. There is insufficient information available to be able to evaluate the other tasks of the bodies. It seems fair to say that there is hardly any communication between community colleges and the lead bodies at regional level. Quality care concerning work-based learning and the guidance of trainees seem to be dealt with from an isolated perspective.

### 9.7.1 The quality of work-based learning

The question regarding the extent to which the change in tasks and responsibilities has impacted on the quality of work-based learning cannot be answered on the basis of the information available. A representative overall view of the situation before and after the implementation of the Act is lacking. The conclusion seems justified, however, that the way in which the current responsibilities were implemented has contributed to the problems concerning the quality of work-based learning in vocational education today. The community colleges were forced to take on their new tasks concerning the coaching of trainees when their internal organisation was still quite demanding, partly because of all the mergers underway. Many colleges claim that apart from this, the introduction of the new tasks was not properly funded. 'No time, no money' was and still is the main reason the centres put forward for the problematic coaching situation in work-based learning.

The introduction of the Act has left a vacuum in several places, because the expertise in work-based learning and counselling by the bodies disappeared. Although some branches created transitional arrangements, in which lead bodies were still directly involved in the counselling of trainees, an overall loss of expertise cannot be denied. The fact that some divisions of community colleges are giving top priority to external counselling and the relationships with companies is a positive development. Employees are specially trained and qualified to operate as work-based learning counsellors.

There are also an increasing number of initiatives aimed at improving cooperation between community colleges and lead bodies at a regional level. It remains to be seen, however, if these developments will be able to increase the overall quality of work-based learning at short notice. For the time being, it appears that this quality could do with an extra impulse. The present problems regarding the quality of work-based learning cannot be totally ascribed to the unfavourable starting situation of the colleges. This research has pointed out the major differences that exist among the community colleges, with respect to the efforts made and methods applied in order to improve the quality of work-based learning and the coaching of trainees in particular. Some of the community colleges have been able to establish a procedure for work-based learning counselling. Good practice makes clear that a central vision at the management level of colleges is a key factor in the success of these institutions. This good practice did not provide evidence of whether a top-down or a bottom-up approach proved more successful. A bottom-up approach, however, necessitates management support to facilitate the counselling of students.

## References

- Esch, W. van & Vrieze, G. (1998). *Innovation monitor VET 1996/1997*. Nijmegen: ITS.
- Frietman, J. (2000). *Matching supply and demand in the work based learning route*. Amsterdam: MGK.
- Meijer K. & Frietman J. (2002). *The Flexis approach*. Utrecht: Sectorfonds Zorg.
- Onstenk, J. & Frietman, J. (1996). *Regional networks in apprenticeship training*. Amsterdam: SCO Kohnstam Institute.
- Vries, B. de (1988). *Het leven en de leer (Life and the creed)*. Nijmegen: ITS.
- Vrieze, G., Laemers, M., Hövels, B. & Tiebosch, C. (1999). *Innovationmonitor VET 1997/1998*. Nijmegen: ITS.
- Vrieze, G., Laemers, M., Mensink, J. & Tiebosch, C. (2000). *Innovationmonitor VET 1998/1999*. Nijmegen: ITS.





# Section 5

Regulating the output  
of the VET system



# 10 The Quality of Examination arrangements

REGINA MULDER, LOEK NIEUWENHUIS & HENK VAN BERKEL

*This chapter focuses on the role of qualifications and the assessment and examination connected to them in the process of reducing discrepancies between demand and supply. The question that arises is how to organise a proper system of qualifications and diplomas that will meet the demands of contemporary society, and in which all the relevant actors can have confidence. Assessment and examinations are crucial to the qualifying process. In the Netherlands, the Adult and Vocational Education Act was implemented in 1996 (WEB, 1996). This Act sets out a framework of rules and regulations for the organisation of assessment and examination.*

*The development and design of assessment and examination is part of the educational design. There are various conditions for a system in which students gain the qualifications that they need and deserve, and in which all the actors can have confidence. It is these conditions that are the subject of this chapter. Besides technical requirements (validity and reliability), assessment techniques should fit into the model of internal and external consistency, as developed in chapter 8.*

*The characteristics of the Dutch system of assessment and examination in VET are described, how it works and an explanation will follow regarding the question of process-product and quality. The relation between performance and the conditions for an effective system of examination is discussed, as are the instruments necessary for improvement in relation to recent developments in the Dutch VET system.*

## 10.1 Introduction

Students who want to get a good job should meet the demands of employers by having acquired the required competencies. These competencies include both instrumental knowledge and skills (cf. Dederig & Schimming, 1984) and learning skills for lifelong learning (cf. Nieuwenhuis & Mulder, 1999). Society nowadays demands that students entering the labour market are able to learn throughout their lives.

Employers recruiting personnel want to have insight into the capacities of their future employees. They therefore screen and assess the competencies of students entering the labour market on the basis of the qualifications (certificates, diplomas) they achieved during work-based or school-based training. They need evidence and reliable procedures. Diplomas and certificates should therefore contain

information on the actual competencies of the potential employee, to be able to forecast future competence development. These documents are used as a trade instrument. The extent to which employers appreciate the qualifications will determine the opportunities of students to find a job.

In the Netherlands, the vocational education and training system (VET) plays an important role in the process of acquiring qualifications. VET is crucial in activating students to attain diplomas and qualifications. The major target of VET is threefold: to prepare students properly for performing future jobs, for citizenship, and for further studies. It is, however, the first target that is the key one for VET. Demands from the labour market have to be taken into account. The individual development of students is also an important aspect of proper preparation for jobs and life (lifelong learning).

Diplomas are the formal proof of competence, in which all the relevant actors should be able to have confidence. Assessments and examinations are crucial to the qualifying process. The development of assessments and examinations is part of the educational design: according to Torrance (1997), assessment is a powerful tool to control the reform of education. There are various conditions for a system in which students gain the qualifications that they deserve, and in which all the actors can have confidence. The question that arises is how to organise a proper system of qualifications. The prerequisite conditions are dealt with in the next section. In section 10.3, the characteristics of the Dutch system of assessment and examination in VET are described. The intention of this system is to provide an optimal match. In section 10.4, we describe how the system works in practice in contemporary Dutch society. The relation between performance and the conditions for a proper system of examination is discussed in section 10.5, as are the possibilities for improvement in relation to recent developments in the Dutch training system.

This study was carried out in 2000/2001 to investigate the impact of *WEB 1996*. For that purpose, examination and assessment was a core issue in the interviews held with key people in colleges and examination institutes (see also chapter 8). The managements of eight different community colleges for vocational education and training were interviewed. Furthermore, in the same colleges, teachers of two of their courses were also interviewed. Eight interviews were held with lead bodies, who are responsible for the design of the qualification structure and (in part) for the assessment and examination procedures. Using this design, triangulated data were retrieved from 16 different courses at three system levels: institutional, organisational and professional. In addition to the interviews, documents were studied, such as those on the characteristics of the Act, reports of the Inspectorate of Education on the quality of education and assessment, quality reports made by several colleges themselves, and the *OER* (regulations for education and examination) of different courses.

## 10.2 Requirements for proper examination

Learning pathways have to be formally concluded with an examination. When they pass, students receive a diploma, in which their qualifications are set out. Examination procedures are changing rapidly, due to the increasing flexibility of learning pathways. The modularisation of pathways leads to the segmentation of assessment procedures, as shown with the NVQs in the UK (Wolf, 1998). Traditionally, an exam consists of paper-and-pencil tests, sometimes combined with oral sessions and/or demonstrations of practical skills. The flexibility of learning pathways goes hand in hand with changes in assessment procedures and evidence building (cf. Fletcher, 1997). (Assessment is a blanket term, to be used for all kinds of measuring procedures.) Straka (2002) describes a shift from cognitive assessments towards observational techniques, and the National Research Council (2001) recommends

a shift from an emphasis on external forms of assessment towards an increased emphasis on formative assessment, designed to assist learning. Thus central examination is increasingly being replaced by flexible, segmented assessment, leading to portfolios of competence evidence that will replace the traditional diplomas.

As mentioned before, employers will use diplomas and/or portfolios as evidence, only when they have faith in them. Evidential certificates and the related assessment procedures are important institutional assets of a training system. There are several conditions for establishing an assessment system that will provide employers with confidence in the outcome of vocational education and training.

- first, the assessment instruments have to be valid; they should measure content and skills and concentrate on topics that are important for the student's future life and work;
- second, the assessment instruments have to be reliable, which means that everyone has faith in the assessment outcomes;
- third, the meaning of the outcome of the examination process – the diplomas and portfolios – has to be obvious and transparent to employers;
- the fourth condition is that the system has to be cost-effective. Companies do not want to pay more than necessary for the transition from education to the company. Moreover, there are employers that do not want to pay for determining the competencies of a potential employee. In their opinion, training people for a job is a task for public education; they want to be able to select employees on formal credentials.

From the perspective of community colleges, there are additional requirements for a good system of assessments and examinations.

- assessment has an impact on the organisation of education (Frederiksen, 1984): students and teachers adapt their learning behaviour to the method of testing and assessment. The impact of assessment on the learning and development of the students has to be taken into account, according to the educational vision of the college;
- acceptability: teachers should have confidence in the assessment instruments, otherwise they will not be used, or be used improperly.

From the perspective of students,

- assessment should be fair, which means that assessment outcomes should reflect their knowledge and skills properly.

Transparency, fairness and acceptability: all these requirements have to do with consistency. The assessment of outcomes should match expectancies and input. The stakeholders in the educational enterprise want to have the guarantee that diplomas stand for the competencies that the courses are aiming at. In chapter 8, we elaborated on two types of consistency: internal and external. In the next section, the consequences of this requirement for examination will be fleshed out.

#### **INTERNAL AND EXTERNAL CONSISTENCY: CONSEQUENCES FOR ASSESSMENT**

We argue that the internal and external consistency of learning pathways is crucial for realising quality in VET courses. (Nieuwenhuis, Van Berkel, Jellema, Mulder, 2001; cf. chapter 8). For internal consistency, learning on the job, learning off the job and assessment have to be in accord. For external consistency, the output of pathways, as laid down in diplomas, should be in accordance with the competency goals of the courses. Van Til (1998) and Frederiksen (1984) argue that assessment is not only the finishing

touch of a learning pathway, but has a retroactive impact on the learning behaviour of students and teachers. Preparation for the test, both by students and teachers, seems to be an efficient way to survive the educational context. When developing assessment instruments for formative and summative assessment therefore, the pedagogical model has to be taken into account.

Achieving external consistency implies that the output of the system is related to its input, the intended goals. The outcomes should make it clear whether the goals formulated in the qualification structure have been achieved. For external consistency, the assessment instruments have to measure the expected outcomes of education and training (cf. Geerligs, 1999). These intended outcomes – the attainment targets – are based on the demands of the labour market (for instance, job-specific knowledge and skills), as well as the demands of society in general (for instance, competencies for lifelong learning).

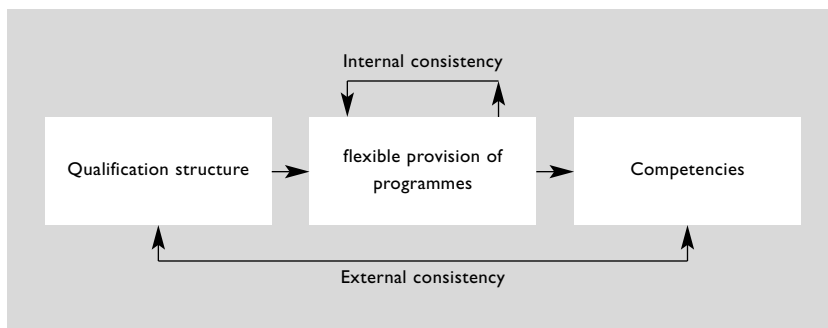


Figure 10.1: Relations between the input, throughput and output of education according to the Adult and Vocational Education Act

In the rest of this chapter, an elaboration is given of the design and execution of assessments and examinations in Dutch VET, considering the requirements from different stakeholder perspectives and the development of internal and external consistency.

### 10.3 The examination system according to the WEB

The aim of the WEB was to improve the quality of vocational education and training, including assessment and examination procedures. According to the Act, the input for the VET system is the qualification structure. This qualification structure is the framework for the learning pathways (see chapter 2). Community colleges have to design and execute the pathways in close cooperation with companies and labour organisations. Community colleges are responsible for the quality of vocational education, both the school-based and the work-based pathways. When students successfully complete their schooling, they have acquired the necessary attainment targets (cf. Geerligs, 1999). Formal learning goals are approved by the social partners (employers' organisations, government and trade unions) and legalised by the Minister's approval. The lead bodies of VET are responsible for the process of developing the formal learning goals (an extensive analysis is presented in chapters 4 and 5).

In this section, the Dutch examination system, as it was working in VET around 2000-2001, is described in detail. Attention is paid to the different actors, and their tasks and responsibilities.

### **COMMUNITY COLLEGES**

Community colleges are responsible for the quality of the teaching and learning processes (primary processes), including the quality of assessment and examination. The focus on learning processes implies a very strong focus on formative evaluation and assessment as part of the learning cycle during the course. At the same time, the college is responsible for summative evaluation and examination. Colleges are therefore responsible for the quality of the different assessment instruments, their functions and use. They are allowed to develop the examinations and test instruments themselves, but may also buy them from organisations that are specialised in test construction and in supporting schools.

By law, colleges have to provide an insight into what will be examined and how and when this will be done. An *OER* therefore has to be set up for each course. Furthermore, the examination instruments have to be sent for inspection to an examination institute to receive permission for use, based on the validity of the instruments for the different qualifications and qualification levels.

### **LEAD BODIES**

The social partners (representatives of the employers and employees) have to provide job profiles as a basis for the profiles of qualifications and competencies. The lead bodies define the qualification structure, with its courses, pathways, course levels, diplomas and certificates. This qualification structure is the input of the VET system and the sector involved. The quality of this qualification structure has implications for the way schools can realise internal and external consistency.

The second legal role of the lead bodies consists of defining the output of the courses: attainment targets. The implications of job profiles for summative assessment have to be analysed and described by the social partners. This results in an overview of qualifications and targets for every course. The national bodies are responsible for this process of development. Through these activities, both the input of the system (the qualification structure) and the outcomes (the attainment targets) are defined.

Furthermore, the national bodies who are involved in developing training material and assessment instruments offer this as a service to schools and also perform the role of an examination institute.

### **EXAMINATION INSTITUTES<sup>30</sup>**

By law, examination institutes (in 2001, 52 of these institutes were operational) are responsible for determining the quality of examination instruments and procedures. This function is called external legitimisation. Examination institutes have to control at least 51 per cent of the examination instruments in use in a course relating to the attainment targets. Tests measuring the progress or development of students are not to be evaluated. The attainment targets are to be represented in self-contained qualification modules, which have to be recognisable in the assessment instruments and procedures to achieve external and content validity.

In principle, anyone may start an examination institute, as long as it is independent of the community colleges and is acknowledged by the Minister of Education. There are two groups of examination institutes: 'Excenter', representing 22 institutes related to the lead bodies in 2000, and 'Avex', representing 30 independent institutes. The number of clients per institute varies enormously (from 2 to 38 schools/departments of schools).

<sup>30</sup> In 2001, these examination institutes lost their legal status. A new institute, *KCE*, is now legally responsible for the quality control of assessment and examination in Dutch VET. Most examination institutes still deliver services to community colleges on contract basis.

In practice, the examination institutes offer a wide range of services to the schools: development of assessment instruments, developing and offering service documents as assessment frameworks and more detailed formal learning goals. Other activities are related to the formal role of these institutions: assessment of the assessment instruments that the schools use. Related to this, some of these institutes offer services such as supporting schools in this process of assessment (legitimation), assessing the instruments that are used by schools (irrespective of whether they had developed them themselves, or they had been developed by other examination institutes, schools or other institutes). Other services they provide include carrying out audits, in which the procedures of assessment and examination (the development of instruments, or the organisation of assessment) are examined, coaching the development of *OERs* and the complete system of providing quality of exams. They also offer teacher training in the field of assessment development.

The examination institutes themselves have to meet certain quality standards. They have to produce an annual quality report about their internal processes and the quality of the external legitimation of the examinations.

### INSPECTORATE OF EDUCATION

The Minister of Education is responsible for the quality of education. For the Minister, the Inspectorate of Education performs this task under the supervision of the Inspector General of Education. This Inspectorate has several tasks. It has to control the quality of education and it therefore visits schools regularly and performs an IIT (Integral Institute Inspection). Furthermore, it requires schools to perform a self-evaluation every two years. Related to the quality of education, the Inspectorate controls the quality of assessment and examination. Every school therefore has to develop an *OER* for

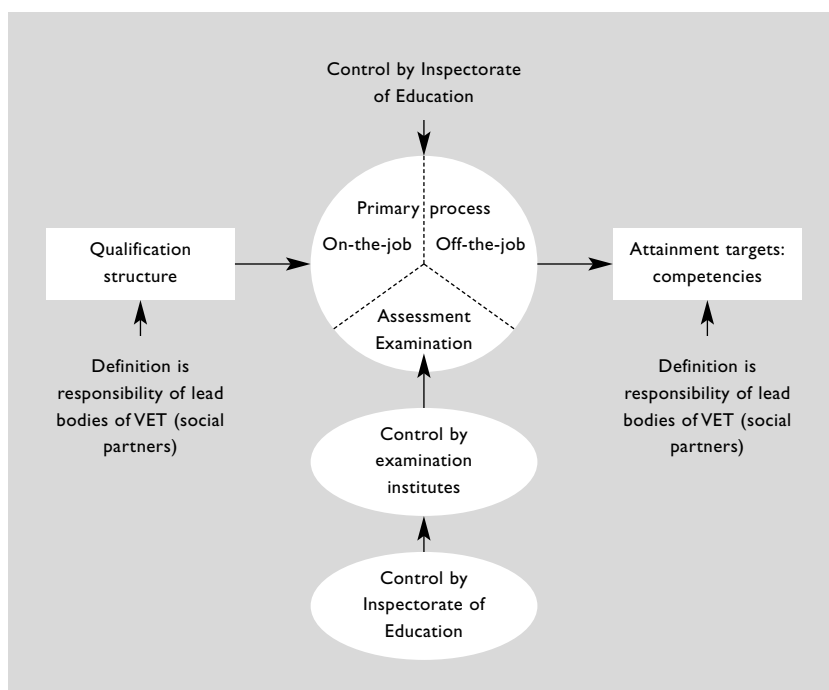


Figure 10.2: The WEB system of organising assessment and examination in VET in 1996-2001



each course. In this document, the colleges make it clear what is assessed and when and how the assessment is conducted during the whole course. Each year, a report is published by the Inspectorate on the quality of examination, in which they present their observations and conclusions on this theme (on the basis of research and the analyses of the *OERs*). The Inspectorate evaluates whether the examinations meet the demands of the Act. The attainment targets should therefore be fully covered by the examinations. In the phase that follows, the exams that were unsatisfactory the year before are assessed. In a complementary study, the Inspectorate evaluates the organisation and the circumstances at the time the exams are conducted in the schools. Aspects such as the information given to students, the construction of the exams, taking exams under legal conditions are relevant in this respect. Furthermore, the Inspectorate has to control the quality of the examination institutes. The Inspectorate therefore also carries out an audit at these institutes, and assesses their annual reports. Figure 10.2 depicts all the relationships regarding examinations.

## 10.4 The system at work

This section describes how the examination works in practice within the Dutch VET system. How do the various actors perform, and do the results meet the standards of a system in which companies, schools and students will all have faith? Attention will be paid to the actual activities of the different organisations, based on data from interviews and documentary analysis.

### QUALIFICATION STRUCTURE

The qualification structure is the input for the system. To realise *external consistency*, it is important that the input and output (the attainment targets) are related to one another. The design of the qualification structure is based on information from the social partners. Each of the national bodies represents the jobs in one economic sector (for instance, health education or education for jobs in electronics). Approximately 800 qualifications have been developed, most of which are defined in the technical sector (for instance, for metal jobs there are over 80 qualifications). These qualifications are linked to specific diplomas and to separate learning pathways, which students have to choose when entering the VET system. The delivery of these courses is difficult for the colleges to manage. On the other side of the labour market, companies complain that they do not understand the new system (with its codes, specific diplomas, etc.).

### PRIMARY PROCESS

On-the-job training, off-the-job training and assessment should fit together consistently as components of the primary learning process. This implies that assessment instruments match the actual learning goals and processes. In reality, most schools, irrespective of their forms of delivery, only use written tests, even for assessing skills. Often their argument is that the standards for such tests are clear, in contrast to the assessments of practical assignments.

The content of on-the-job training (or work-based learning) depends greatly on the characteristics of the job and the company, and the competencies of the coach in the company. Schools hardly ever intervene. Companies generally do little to improve on-the-job training; assessment of work-based learning by the companies is a problem area for educational quality. Once a company has been accredited by a lead body, it is accepted as an on-the-job training institute and schools rely on this accreditation.

The quality of assessment instruments varies enormously within and between community colleges. The school-based pathways in general are said to be better at developing good tests, than the work-based apprenticeships, due to the experience teachers have in developing tests in school-based training. The Inspectorate mentioned that the quality of the tests has not (yet) improved since the WEB was introduced (cf. *Inspectie*, 1999, 2000).

When schools assume their responsibility, the quality of assessment can increase very rapidly. But there is little thought about a vision of assessment and examination in the colleges. Colleges realised in 2000-2001 that the quality of their assessment procedures was not good. However, the WEB had an important impact on the quality: it made everyone aware of the necessity of good procedures for assessment and examination, and this often led to central committees that were responsible for the development of assessment instruments. In other colleges, discussions about testing and how to organise it have only just started. Within colleges, we see large difference between 'schools' (colleges are divided into separate divisions, responsible for clusters of courses and pathways; because they often are located in different buildings, these departments are still called schools by the local community). Some departments have well-organised procedures for assessment and examination, whereas their counterparts in the same college are far behind in development.

The Inspectorate states in a report that the competence of teachers to develop tests is unsatisfactory (*Inspectie*, 1999, 2000). The technical competencies to develop tests are lacking, even when colleges have organised specific training and support. Furthermore, the Inspectorate argues that the disappointing quality of assessment and examination is mainly the result of bad management in colleges; there is hardly any internal policy on assessment and examination. It seems that assessment is something for individual teachers and not for the management. This can be concluded on the basis of the evidence found by the Inspectorate in the quality of examination tests, differences in conditions for the constructions of tests, and differences in compliance with legal regulations.

#### **ASSESSMENT AND ATTAINMENT TARGETS**

Other causes of bad quality of assessment lay outside the colleges. The attainment targets are not always defined in such a way that they are suitable for a framework for assessment. For instance, the Inspectorate states that in some qualification structures the attainment targets are too general. The documents that the lead bodies have produced vary enormously, which implies that, for different sectors, different grades of specialisation of courses exist, and that the learning goals are defined in different ways. The formulation of learning goals is not clear enough for some departments. Some colleges or departments ask for detailed prescriptions, but, paradoxically, others, especially the innovative ones, ask for open definitions, because they say that the rigid formulation of attainment targets is hindering new forms of didactics. For the innovative colleges, detailed specifications stand in the way of realising internal consistency, and hinder an optimal relation between on-the-job learning, off-the-job learning and assessment.

#### **QUALITY CONTROL**

Examination institutes control the quality of assessment and examination procedures used by the colleges. In general, this system of external legitimation is warmly welcomed by schools. It has stimulated them to think more about the quality of testing and examination. On the other hand, the quality of the quality control service is often unsatisfactory, in the opinion of the colleges. The relations between colleges and examination institutes are not optimal; expectations are not clear and communication is not always ideal. Although lead bodies should keep their quality control services

separate from their other activities, colleges often complain about package deals, in which the offer of attainment targets, with examination instruments, accreditation for companies and quality control are sold as a package.

The examination institutes complain about the way colleges hand in the documents and instruments to be assessed. Most colleges present too many assessment instruments, including formative tests, whereas it is only the summative instruments that have to be checked. According to the examination institutes, formative tests are not required. Confusing process and product is not allowed.

In relation to the task of providing an *OER* for every course, community colleges do not always know what they should. This is evident when analysing the *OERs*, in which there is often no explicit relation between tests and learning goals. Furthermore, the assessment procedures, derived from the *OER*, are sometimes so complicated that teachers are hardly capable of fulfilling them. This is caused by the dual goal in the *OER*: a pedagogical guide for students and teachers, combined with a legal basis for the rights and duties of students. The Inspectorate is therefore not satisfied with the quality of the *OERs*.

At first, in 1998, many colleges did not develop an *OER* at all. One year later, after warnings from the Ministry, all colleges made *OERs*, but most of them did not meet the formal standards and many did not include information about examination procedures. Furthermore, the Inspectorate stated that colleges had problems in carrying out the procedures laid down in their own *OER*, although the execution of tests and the processing was generally reasonably well organised.

Colleges ought to set goals for testing, but they frequently skip this part and develop tests directly. Often, there is a content validity problem, a gap between the attainment targets and the content of the tests, because schools do not pay enough attention to this relation. Formative assessments are also used as summative assessments. The Inspectorate found that examinations were often paper-and-pencil tests, consisting of theoretical questions only, even in cases where other skills were supposed to be tested. One positive finding was that in colleges where the quality assessment for examinations works well, the quality of examination is high as well.

The instruments introduced by the *WEB* to realise quality control of assessment (*OER*, *IIT* and the external legitimisation), met a lot of resistance. Colleges regard the *OER* as an administrative disaster: it takes a lot of time to develop and, once developed, students have to be offered pathways according to these specifications during the entire period (maximum four years). There is no flexibility left in the system for in-between alternations, so adaptation to developments in companies and in society is hindered.

As for the comprehensive Inspectorate process, schools enjoy its impact on the awareness by teachers and managers of the necessity for quality measurements. However, there are complaints about undesired side effects and too much attention is paid to details.

An extra complication is the relation between the examination institutes and the Inspectorate. According to the examination institutes, the Inspectorate is not clear on what is required of them and of colleges. Several times it was mentioned that colleges are responsible for delivering the results of the exams to the Inspectorate, while the Inspectorate asks the examination institutes for these data. Although control of the *OERs* is a legal task of the Inspectorate and not of the examination institutes, they are expected to control the quality of *OERs* too.

#### **OVERVIEW AND RECENT DEVELOPMENTS**

From our own evaluation studies and the reports of the Inspectorate, a mixed picture is emerging. The quality of assessment and examination is turning out to be Achilles' heel of the Dutch VET system.

Professional expertise in colleges was poor at the moment of investigation (2001); society and politics are increasingly aware of this problem. On the other hand, the impact of the Act on quality measurements can be observed too: colleges take this issue of examination quality very seriously and quality has been increasing year by year. From the evaluation reports, the conclusion was drawn to design a quality policy, based on increasing professionalism inside the colleges. This is a medium or long-term recommendation. For the political debate however, this approach was too slow. Even before publication of the evaluation reports, the decision had been taken by the Minister of Education to install a national institute for the improvement of examination quality in VET. Both colleges and lead bodies have accepted this new regulation, although the colleges were not in favour. The new quality institute, set up in April 2002, called *KCE* (Quality Centre for Examinations in VET), is the legal replacement for the examination institutes and will be in full operation in 2004. Based on fees paid by the colleges, the *KCE* will perform audits annually in a selection of colleges, departments and sectors. The intention of such an audit is to follow the EFQM model on quality management and to check that the whole of the assessment of formal learning goals (product assessment), as well as all process assessment will be undertaken. It looks as though a second 'Inspectorate of Education' has been created, including more rules, regulations and bureaucracy. The *KCE* has also given an impulse to the development of good assessment instruments, by funding several projects of colleges and other institutes. Furthermore, the *KCE* has started to make a system for colleges to improve the quality of assessment instruments and these projects have recently started.

## 10.5 Conclusions and future perspectives

### MAIN CONCLUSIONS

A public system of VET needs an examination and graduation system in which all the stakeholders can have confidence. This requires reliable and valid instruments, insight into the impact on learning processes, acceptability and the cost-effectiveness of procedures.

In addition, internal and external consistency is needed to provide a VET system that works properly. Internal consistency implies that assessment, in-school training and on-the-job training are connected. The relation between in-school training and on-the-job training has to be optimal. Evidently, the way assessment is carried out is of influence on how learning takes place (Van Til, 1998). In the design of learning pathways, these three elements should be in accord.

In the current situation, teachers are not well trained to develop proper assessment instruments that fit their pedagogical approach, and supporting institutes do not develop them, or – more likely – cannot do so either. It seems impossible to develop instruments that meet the demands of internal consistency. The formal learning goals are defined in terms of specific elements of knowledge (and some skills), mostly not comprehensive or in relation to another. To be able to meet the formal demands, the integrated competencies have to be split into several separate elements of knowledge and skills. The irony is that companies want and need the integrated competencies. They are not interested, for instance, in a youngster's mathematical knowledge, but want him or her to perform the task 'design a building' properly. This situation is frustrating for innovative teachers and managers. Educational innovation is in this way not being stimulated by the institutional conditions set out in the *WEB*.

The employers' organisations point out that they need a training system in which the qualifications can be used as a trade instrument. They therefore want the lead body to provide a benchmark, in order to make diplomas comparable and transparent. In addition, companies want students to acquire specific competencies that are applicable in that specific company. This applies especially to small and medium-sized companies. In the current situation, preparation for lifelong learning, the increasing sized companies. There is thus a discrepancy between national standards and local demand for flexibility and individual tracks seem to be in contradiction to the emphasis on national exams and the demands of employers for a national standard.

There are still departments of community colleges not taking their responsibility for delivering quality assessment and examination. They feel trapped by national regulations, although the 1996 Act in fact stimulates their autonomy. Perception and reality do not match. This applies especially to apprenticeship courses. Several lead bodies, examination institutes and the Inspectorate state that colleges are not capable of assuming their responsibility, so the lead bodies declare themselves to be irreplaceable. Politically, little confidence exists in the colleges' capacities to realise good assessments and examinations. The low quality of actual assessment and examination procedures fuels this view. Colleges are improving, but the process will take years.

National regulations and colleges are at odds with each other. Colleges state that instruments such as OER and the Inspectorate's comprehensive evaluation processes (IIT) have created a lot of administrative red tape. On the other hand, they say that these instruments have increased awareness of the quality of education, including assessment. Schools were activated by these instruments to improve quality, although they started quite late. The new quality institute, KCE, has been received with mixed feelings.

#### **BALANCING LONG-TERM AND SHORT-TERM SOLUTIONS**

A proper system of assessment and examination should fulfil two contradictory requirements. On the one hand, it should comply with national standards in order to deliver reliable diplomas, with valid currency on the labour market. On the other, systems of assessment and examination should be characterised by flexibility at local level. Balancing between Scylla and Charybdis, policy-makers have a tendency to rely on strong regulations, sweeping away all flexibility. The sustainable way – professionalising teachers and creating accountable colleges – is too long for politicians and stakeholders, who need short-term solutions.

To improve the current situation, all the relevant actors should assume their responsibility and perform properly. Colleges have to prove they can cope with the autonomy they have by law. They have to deliver good formative and summative assessments and examinations. External assessment of procedures, with severe consequences and incentives, is a natural complement of colleges' autonomy. Companies should be more involved both in the assessment procedures during the courses, and in the examination procedures, in order to realise local flexibility.

The government should perform its political role; define the framework and the degree of freedom for actors. This is not happening at the moment; government is not assuming its responsibility. This has led to a situation in which the lead bodies are trying to assume that responsibility themselves and to develop rules and regulations that are not in accordance with the law, causing a lot of frustration. Institutional organisations should facilitate, not regulate.

### RECENT DEVELOPMENTS IN RELATION TO THE QUALITY OF ASSESSMENT AND EXAMINATION

Several actions have been started to improve the quality of assessment and examination in Dutch VET. New job profiles are under construction by the lead bodies. The Ministry of Education requires a new qualification structure with a sharp reduction in qualifications (from 800 to about 140) for the sake of transparency. The new qualification structure focuses on competencies, instead of loosely coupled knowledge and skills.

Colleges and lead bodies fully realise that the assessment and examination instruments have to be improved. The KCE has developed a system that colleges can use to control their process of assessment and examination. It has, however, not yet concentrated on the assessment of the procedures and tools, but will do so in 2004. There are several indications that this system is going to reduce the autonomy of the colleges and local flexibility, in favour of national standardisation.

Colleges are slowly but surely assuming their responsibility for achieving internal consistency. Some colleges are trying to develop pathways in which student development is central. They are using the qualification structure as an agenda, and not as a regulation to be followed strictly. They are putting effort into the development of these pathways, including consistent assessment and examination. Some schools are aware of the necessity for external consistency and act accordingly. These schools are making their own job profiles and deriving from these profiles the competencies that students should acquire. This way of organising education, including formative assessment, seems to be creating possibilities for VET to respond rapidly to new developments in society. Within APL projects (assessing prior learning; see Straka, 2003) and experiments with assessment on the job (Breuer, 2002), interesting alternative assessment tools are being developed. Examination could, for instance, be carried out through a "masterpiece", and combined with all kinds of evidence collected during the course (such as written or visual evidence of experiences, like essays, photos and performances) and assembled in portfolios.

Colleges keep having problems with the expertise to develop assessment tools or new forms of such tools. For the time being, they need external support and guidelines. As first priority, the professionalism of teachers should be given serious attention. Colleges are putting a lot of effort into improving quality, but have only just started. The Inspectorate and the KCE can stimulate these efforts, but in a more facilitating and supportive way. Government should facilitate this, by exercising restraint with new rules and regulations.

Colleges are responsible for the quality of training, including assessment. Formative assessment and stimulating learning processes is part of that responsibility, as is summative evaluation, for determining the formal learning goals. Due to the demand for internal and external consistency, it is questionable whether assessment and examination should have a separate quality control system, apart from the Educational Inspectorate, which is responsible for the integral quality control of colleges' behaviour and delivery. The KCE is a political solution to a political problem, and not a systemic solution to an educational problem. However, autonomous colleges in a public educational system need publicly organised quality control. In final exams, external inspection should be organised, but this should be in accordance with the pedagogical philosophy of the college. A sophisticated balance between national regulations and local flexibility needs to be developed, but it is doubtful whether this can be realised in the actual political climate of "law and order".

## References

- Berg, J. van den, F. Ebbens, J. Huisman, A. Kikstra m.m.v. R.H. Mulder (2003). *Beroepstaak Gestuurd Leren; een nieuw ontwerp voor techniekopleidingen niveau 1 en 2 BOL en BBL*. 's-Hertogenbosch: CINOP/Stichting Consortium PGO.
- Berkel, A. van, Hofman, K., Kinkhorst, G. & Lintelo, L. te (2003). *Competentie-assessment: de ontwikkeling en toepassing van self-, peer- en expert-assessments in het HBO: een praktijkvoorbeeld*. Utrecht: Lemma.
- Breuer, K. (2002). *Authenticity and validity in vocational examinations; real worksite tasks for mechatronics in Germany*. Presentation at Cost-conference 'transferability, flexibility and mobility as targets for vocational education and training, June 13th-16th, Gothenborg.
- Dederig, H. & Schimming, P. (1984). *Qualifikationsforschung und arbeitsorientierte Bildung: eine Analyse von Konzepten zur Arbeitsqualifikation aus pädagogische Sicht*. Opladen: Westdeutscher Verlag.
- Fletcher, S. (1997). *Competence based assessment techniques* (sec. edition). London/Stirling: Kogan Page.
- Frederiksen, N. (1984). The real test bias: influences of testing on teaching and learning. *American Psychologist*, 39 (3), 193-202.
- Geerligs, J.W.G. (1999). *Design of responsive vocational education and training; a reconstruction of a systems change in agricultural education*, dissertatie. Delft: Eburon publishers.
- Inspectie van het onderwijs (1999 & 2000). *Examenverslag* (report on examinations). 's-Gravenhage: SDU.
- Ministerie van OCenW (1996). *Wet Educatie Beroepsonderwijs*. 's-Gravenhage: SDU.
- Mulder, R.H. (2002). *Innovation in secondary vocational education: problem based learning in technical education*. Paper presented at the 3rd conference on HRD research and Practice across Europe, 25th and 26th January 2002, Edinburgh.
- Mulder, R.H. (2003). *Projectportret Techniek maakt het! Probleemgestuurd onderwijs in beweging ontwikkeling en toepassing van een didactiek in het middelbaar technisch onderwijs*. Delft: Axis.
- National research council (2001). *Knowing what students know. The sciences and design of educational assessment*. Washington: National Academic Press.
- Nieuwenhuis, A.F.M. & R.H. Mulder (1999). Increasing complexity in vocational education. In: Nijhof, W.J. & Brandsma, J. (eds.). *Bridging the skills gap between work and education*. Dordrecht: Kluwer Academic Publishers.
- Nieuwenhuis, L.F.M., Berkel, H.J.M. van, Jellema, M. & Mulder, R.H. (2001). *Kwaliteit Getoetst in de BVE: Kwaliteit en niveau van aanbod en examens in het beroepsonderwijs en de volwasseneneducatie*. Zoetermeer: Ministerie OCenW, Stuurgroep evaluatie WEB.
- Straka, G.A. (2002). Valuing learning outcomes acquired in non-formal settings. In: Nijhof, W.J., Heikkinen, A. & Nieuwenhuis, L.F.M. (eds.). *Shaping flexibility in vocational education and training*. Dordrecht: Kluwer Academic Publishers.
- Straka, G.A. (2003, ed). *Zertifizierung non-formell und informell erworbener Kompetenzen*. Münster/New York: Waxmann.
- Til, van, C. (1998). *Voortgang in voortgangstoetsing; studies naar de aansluiting van de voortgangstoets op probleemgestuurd onderwijs*, dissertatie. Maastricht: Universiteit Maastricht.
- Torrance, H. (1997). Assessment, accountability and standards: using assessment to control the reform of schooling. In: Halsey, A.H., Lauder, H., Brown, P. & Wells, A.S. (eds.). *Education: culture, economy and society*. Oxford University Press.

Wolf, A. (1998). Competence based assessment. does it shift the demarcation lines? In: Nijhof, W.J. & Streumer, J.N. (eds.). *Key Qualifications in Work and Education*. Dordrecht/Boston: Kluwer Academic Publishers.



# 11 The returns to vocational education in the Netherlands

ROLF K.W. VAN DER VELDEN & MAARTEN H.J. WOLBERS

*Our aim in this chapter is to investigate how the transition from secondary vocational education to subsequent destinations takes place for individual school-leavers. Particular emphasis will be placed on changes in the so-called external returns to education through the years. For most types of education, the first students from the new study programmes still have to leave school, making it impossible at this moment in time to assess the impact of the introduction of the qualification structure on the external returns to secondary vocational education. One exception is the agricultural sector, where the new qualification structure was introduced in 1992. Considering the available data, we have restricted ourselves in this chapter to the first and second qualification objectives. The transfer to continuing education concerns the transfer to HBO (higher professional education) and dropouts from HBO. With respect to entry onto the labour market, this relates to aspects such as the chance of having a paid job, or a permanent job, the match between education and work, and wages. In addition, we have registered the answers of school-leavers to the question of whether the study programme prepares students adequately for subsequent destinations, and whether, looking back, they are satisfied with the choices made at the time with respect to their programme in secondary vocational education. The latter indicator provides a general opinion by school-leavers of the study programmes that they completed.*

## 11.1 Introduction

A well-developed system of vocational education at secondary school level is often considered to be the backbone of the economy (Finegold & Soskice, 1988; Ryan, 1991). International comparative studies stress the importance of a sufficiently skilled labour force for productivity levels in industrial sectors (Cörvers, 1998), the avoidance of delays in production processes, and the quality of goods and services (Mason, Van Ark & Wagner, 1994; Steedman & Wagner, 1987). The importance of vocational skills at intermediate level is reflected in the fact that, in general, school-leavers from vocational pathways at intermediate level are well integrated into the labour market. In a review of the effects of vocational education on labour market outcomes, Boesel et al. (1994) reported positive labour market outcomes, especially when school-leavers find work in a related field. Bishop (1989) found evidence of higher earnings for those who had completed vocational training in the United States, and Van der Velden and

Wolbers (2000) showed small positive effects of the specificity of a course on hourly wages and the likelihood of finding a matching job for Dutch school-leavers.

These relationships between occupation-specific skills and labour market outcomes have often been used to explain cross-national differences in the integration of school-leavers into the labour market. In their comparative study of the transition from school to work in thirteen different countries, Müller and Shavit (1998) showed the positive effects of vocational specificity on the likelihood of entering skilled positions. The OECD Thematic Review of key features of successful transition systems points to – among other things – widespread opportunities to combine workplace experience with education (OECD, 2000), while Bishop (1995) made a plea for the extension of vocational training in the US to combat youth unemployment. The results, however, are not always consistent. Van der Velden and Wolbers (forthcoming) have shown that the differences in employment chances of school-leavers between different EU countries is significantly related to the existence of a dual system, but not to the vocational orientation of a country's education system. Ryan (2001) also reported more consistent findings in favour of a dual system, rather than a vocational orientation as such.

Notwithstanding these sometimes contradictory results, one of the primary explanations for the fact that Dutch school-leavers in general face few problems in the transition from school to work is the extended system of vocational education at intermediate level. This makes it interesting to see how the returns to this type of education have developed over the years. Moreover, it is interesting to analyse whether the introduction of the new Adult and Vocational Education Act has led to an improvement in the match between education and jobs. The objective of this Act was to introduce a new qualification structure into secondary education (*Ministerie van Onderwijs, Cultuur en Wetenschappen* [Ministry of Education], 1996). From 1 August 1997, we distinguish five types of education, linked to four qualification levels. This new qualification structure describes what study programmes should teach. National final attainment targets have been formulated for each study programme, stating what should be expected of school-leavers at each of the four levels at the end of their studies. Within this framework, each study programme was assigned three qualification objectives. These objectives relate to the way in which the study programme prepares its students for continuing education (transfer qualification), occupational performance (labour market qualification) and social and cultural performance (social qualification). In the present evaluation we will restrict ourselves to the first and second qualification objective.

## 11.2 Data and model

For the analysis of the external returns to secondary vocational education, we have made use of data from the school-leaver surveys of the ROA (Research Centre for Education and the Labour Market). Since the beginning of the 1990s, ROA has been conducting annual surveys among school-leavers from secondary vocational education. Every autumn, several tens of thousands of school-leavers from these study programmes are approached, providing a nationally representative overview of the outflow and destinations of this group. The timing of the survey is approximately eighteen months<sup>31</sup> after they have

31 Until the year 1995, the survey was held one year after students had left school.

completed their studies, which means that the figures obtained in the year of measurement reflect the outflow cohort of the previous year. The information collected concerns the destinations of school-leavers, focusing both on the transfer of students to continuing study programmes and entry onto the labour market. In addition, the survey provides information for an evaluation of the curriculum of the education completed and of the education itself.

For the present analysis, we have made use of the school-leaver data from full-time study programmes, starting with the outflow cohort of 1990/91. These full-time study programmes are divided into long tracks *MBO* (upper secondary vocational education) and short tracks *KMBO* (short full-time *MBO*). School-leavers from the so-called dual programmes (apprenticeships) have not been included, because their data have only been collected recently. Considering the limited time that has passed since the introduction of the *WEB* (Adult and Vocational Education Act) in August 1997, the outflow from study programmes in the new qualification structure cannot be observed in full yet. School-leavers from the 4-year programmes, for example, would have left school no earlier than June 2001. This means that we cannot provide a definitive evaluation of the qualification structure. The present analysis must be regarded as a preliminary measurement, providing insight into the developments with respect to external returns to education in the situation before the introduction of the qualification structure. As stated above, the agricultural sector is the only sector for which we were able to assess the effects of the introduction of the qualification structure. The reason for this is that the new qualification structure was introduced into this sector in August 1992 (Geerligs, 1999; Gielen & Le Rütte, 1998).

One complicating factor in the evaluation is the extent to which developments in the returns to study programmes in the agricultural sector are actually the result of the introduction of the qualification structure and not related to any other factors, some of which may distort the picture. There are three groups of factors, the effects of which we need to eliminate through statistical control in a multivariate analysis: characteristics of school-leavers, characteristics of the study programme itself, and of social changes (Van der Velden & Wolbers, 2000). School-leaver characteristics concern the composition of the student population. These include personal characteristics, such as motivation, intelligence, etc., which affect the transfer to continuing education or entry onto the labour market. Usually, there are no direct measurements available for these characteristics, and hence they are often indirectly operationalised on the basis of a number of student characteristics of a sociostructural nature. In the present analysis, we therefore take into account the individual characteristics of ethnicity, gender, previous education and age.

The characteristics of the study programme include the specific properties of a programme that give school-leavers a relative advantage (or disadvantage) in subsequent destinations. For example, in the case of entry into the labour market, the position of a study programme is determined by the estimation that employers make of training costs (Thurow, 1975). Job applicants are placed in an imaginary 'labour queue' on the basis of these expected training costs. If school-leavers from a particular study programme require few expenses to bridge the 'gap' between the available competencies and those required, then this study programme will be at the top of the list. In principle, the expected training costs relating to a study programme are determined by three components: specificity, selectivity and complexity (Glebbeeck, 1988; Van der Velden & Wolbers, 2000). The specificity of a study programme relates to the degree to which a programme prepares specifically for particular jobs, the selectivity of a programme concerns the risk that school-leavers from a study programme

possess the skills taught to a lesser degree, while the complexity of a programme is related to the indicators of the general learning abilities of students that are connected to the study programme. The most obvious indicator for determining variation between study programmes with respect to these components concerns the field of education. In the analysis, we therefore use the sector of the education completed by school-leavers in order to check for differences in the specific characteristics of study programmes.

In the case of social changes, one should first think of general developments on the labour market. The relationships between the supply and demand of study programmes may have changed in the course of time, without this having anything to do with the introduction of the new qualification structure. Other social developments – such as an increase in participation in education – may also have occurred without a direct relationship to the introduction of the qualification structure. To take such social changes into account, we have included in the analysis a variable that indicates in which school year the students left the study programme with a diploma.

### 11.3 Transfer to continuing education

The evaluation of the transfer to *HBO* can be conducted largely on the basis of two factors. The first factor concerns the relative transfer to *HBO*, which cannot be interpreted unequivocally. The extent of the transfer to *HBO* must be seen in relation to the transition to the labour market, because the study programmes in secondary vocational education prepare both for continuing education and for jobs. If the transfer rate to continuing education is very high, this probably gives some indication of inadequate preparation for occupational practice. On the other hand, if the transfer rate is very low, this may be related to a limited need for additional qualifications or to an inadequate match between secondary vocational education and *HBO*.

The second factor concerns success in continuing education, or the internal returns in the *HBO* programme<sup>32</sup>. Success in continuing education (or rather a lack of it) is established on the basis of the percentage of individuals who have made the transfer and then left the *HBO* programme prematurely. We have also determined the percentage of dropouts who have chosen another study programme (so-called study-shifters). It is necessary, however, to interpret these figures with some care: the scores of these indicators are not only determined by the extent to which secondary vocational education prepares for a study in *HBO*, but also depend on the characteristics of the *HBO* study itself.

Figure 1 shows the development of transfer to *HBO* since the outflow cohort of 1990/91. First of all, this figure indicates that there are considerable differences between educational sectors. *MBO* school-leavers in the behaviour and society sector make the transfer to *HBO* most often, followed by school-leavers from the technology and economics sectors. School-leavers from the agricultural and health care sectors, on the other hand, are the least inclined to embark on a study in *HBO*.

32 Information on success in continuing education has only been collected since the 1994/95 outflow cohort. This means that any trend developments can only be observed for a period of four years.

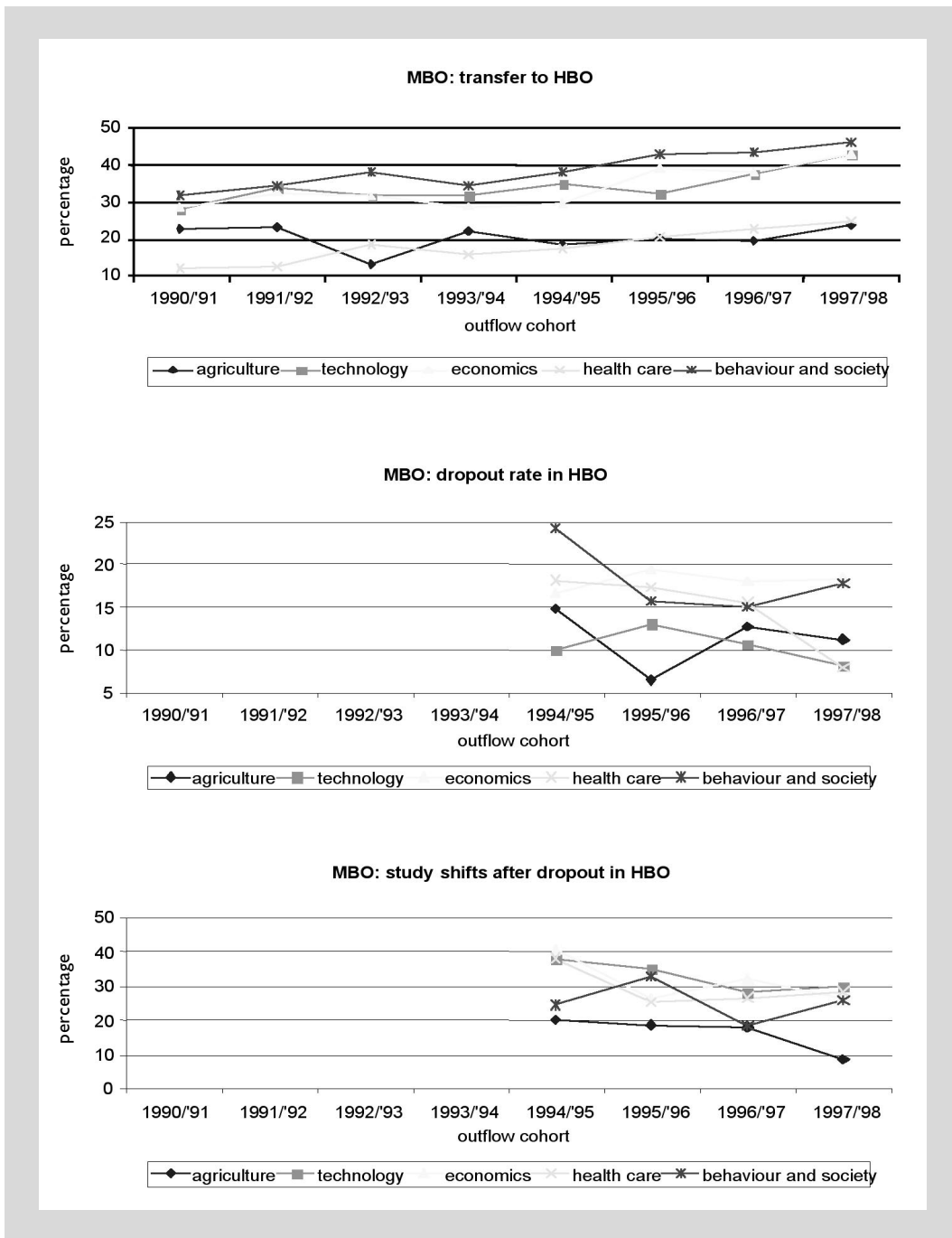


Figure 11.1: Developments in various indicators of the transfer to continuing education for school-leavers from MBO (long tracks)  
 Source: ROA, RUBS 1992-1999

Figure 11.1 also shows that there is a considerable increase in the percentage of MBO school-leavers who opt for a subsequent study in HBO. Across the educational sectors, this percentage increased on average from 25% in 1990/91 to 39% in 1997/98. Only the agricultural sector shows a different picture,

where the percentage of those who transfer to continuing education appears not to have changed. The question is whether this deviating development for the agricultural sector is related to the introduction of the qualification structure. To find out, a logistic regression analysis was carried out in order to determine whether the introduction of the qualification structure has had a statistically significant effect on the chance of transferring to HBO. As indicated above, this can only be determined if we take into account any influences from characteristics regarding the composition of the group of school-leavers, differences between educational sectors, and changes in the course of time.

Using a stepwise model structure, adding another group of factors to the analysis in each step, we have investigated whether we could observe an effect that could be attributed to the introduction of the qualification structure, and what remained of this effect after the inclusion of additional variables in the model. The effects of the introduction of the qualification structure for the various models are represented in table 11.1. Model 1 relates to the analysis in which we have only taken into account the differences between educational sectors. Model 2 shows the effect of the qualification structure after checking statistically for any differences between educational sectors and differences in the composition of the school-leaver population with respect to the characteristics of ethnicity, gender, previous education, and age. Model 3 shows the effect of the introduction of the qualification structure after checking for the variables of educational sector, ethnicity, gender, previous education, age and outflow cohort<sup>33</sup>.

Indicator	Effect introduction QS in agricultural sector		
	model 3 <sup>a</sup>	model 3 <sup>b</sup>	model 3 <sup>c</sup>
MBO (long tracks)			
Continuing education			
Transfer to HBO	-0.248**	-0.009	-0.543**
Dropouts in HBO	-0.046	-0.068	0.118
Study shifts after dropout in HBO	-0.592	-0.539	-0.274

Notes: \* =  $p < 0.05$ ; \*\* =  $p < 0.01$ ; <sup>a</sup> = checked for educational sector; <sup>b</sup> = checked for educational sector, ethnicity, gender, previous education and age; <sup>c</sup> = checked for educational sector, ethnicity, gender, previous education, age and outflow cohort.

Table 11.1: Effects of the introduction of the qualification structure (QS) into the agricultural education sector on indicators of the transfer to continuing education for school-leavers from MBO (long tracks): logit effects

Source: ROA, RUBS 1992-1999.

Table 11.1 shows that, after the introduction of the qualification structure, the chance of a transfer to HBO is considerably lower for the agricultural sector. The estimated logit effect of model 1 implies that, after the introduction of the qualification structure, the chance of transfer versus no transfer to HVE

33 The effects of control variables are not shown here. Detailed information can be found in Wolbers (2001).

is only four-fifths of the corresponding odds ratio before the introduction of the qualification structure ( $e^{-0.248} = 0.780$ ). This effect is no longer significant if we take into account differences between educational sectors in the characteristics of school-leavers (see model 2). If we subsequently check for changes over time, the effect of the qualification structure is again unmistakably present.

The effect of the qualification structure that was found may be explained by taking into account the level of the education completed. A number of study programmes that used to be classified as long-track *MBO* programmes and which provided direct access to *HBO* were devalued to level 3 study programmes after the introduction of the qualification structure. As a result, the number of school-leavers with an education at level 3 has increased in relation to the number of school-leavers with an education at level 4 (see also Gielen & Le Rütte, 1998: 113). The fact that level 3 programmes no longer provide access to *HBO* in the new qualification structure may have caused a decrease in the total transfer from *MBO* to *HBO* after the introduction of the qualification structure. In a further analysis (see Wolbers, 2001), we indeed observed a significant drop in the transfer rate to *HBO* for study programmes at level 3 (from 14% to 2%), while no significant difference in the transfer rate was found for study programmes at level 4 after the introduction of the qualification structure (transfer rates being 35% and 33%, respectively). In all, this has resulted in a major decrease in the transfer to *HBO* for the agricultural sector as a whole.

The transfer from *MBO* to *HBO* is accompanied by some dropout (see figure 11.1)<sup>34</sup>. Within about one year after starting their *HBO* study, approximately 15% of those who made the transfer had already left their studies again. More than a quarter of them continued their educational career in another study. It is unknown whether this study shift concerns another *HBO* study or a different study elsewhere. A comparison between the outflow cohorts shows that dropout rates have decreased slightly recently. This is offset by the fact that the percentage of study-shifters has also decreased a little over the past few years.

The problem of *MBO* dropouts in *HBO* is comparable to that of school-leavers from the general tracks in secondary education *HAVO* (upper general secondary education). However, the reasons for dropping out differ for the various study programmes (ROA, 1998). Those who came from *HAVO* relatively often had too little discipline and preferred to take a different study. Those who came from *MBO* relatively often said that the match with the subsequent study was not what they had expected, and they eventually preferred to accept a job.

There are fairly large differences between educational sectors in *MBO* with respect to dropouts. Dropout rates are highest in the behaviour and society sector, followed by economics. In the agricultural and technology sectors, there are relatively few dropouts. A few years ago, the health care sector had a relatively high dropout rate, but today it has the lowest of all educational sectors. With respect to the number of study-shifters, we observe that this percentage is relatively low in the

<sup>34</sup> Information on dropouts has only been collected since the 1994/95 outflow cohort. This means that no previous measurements can be made for study programmes at level 3 in the agricultural sector. After all, the first new outflow at this qualification level was already observed in that school year. This means that the estimated effect of the qualification structure (in table 11.1) only relates to study programmes at level 4.

agricultural sector. This seems to indicate that those in the agricultural sector who leave their studies prematurely eventually opt for a destination outside education. In addition, the percentage of study-shifters in the agricultural sector halved in four years (from 20% in 1994/95 to 10% in 1997/98). These deviating findings for the agricultural sector appear to have no relation to the introduction of the qualification structure. The results presented in table 11.1, after all, show that the qualification structure has had no significant influence on the chance of dropping out of *HBO*, or on the chance of shifting studies after dropping out of *HBO*.

#### 11.4 Labour market entry

In addition to teaching the competencies that are relevant to the transfer to continuing education, secondary vocational education provides students primarily with the skills that are necessary to perform effectively in occupational practice. To assess how successful education is in teaching the so-called labour market qualifications, studies often determine the labour market position of individuals after leaving their studies. In such an analysis, different indicators are used to describe in detail the allocation process of school-leavers on the labour market. This concerns in particular such issues as the chance of having a paid job, or of having a permanent job, the match between one's education and one's job, and wages. Empirically, these different aspects of the labour market position can be reduced to two underlying dimensions (Van der Velden & Wieling, 1994): the chance of having a job and the quality of the job. These two dimensions are barely related. This means that an education that offers greater opportunities for work does not necessarily imply a good quality job. To be able to assess the external returns of study programmes, it is therefore important to consider both dimensions and their indicators.

In this analysis, the chance of having a job is determined by two indicators. We first look at the chance of having a paid job. In addition, we also consider the chance of having a permanent job: a job in which one has an employment contract of unlimited duration or a temporary job with a duration of more than one year.

To indicate the quality of work, we also used two indicators: firstly, the match between education and work. The chance of having a job at one's own level is determined by comparing the level of the education completed with the level of the education required by the employer. If the required level is identical or higher, we consider the job to be at the right level. In addition, we look at the wages paid. Wages are defined as the gross hourly wages of the job in which one spends the largest number of hours.

Figure 11.2: shows the developments in the indicators of the chance of having a job for *MBO*.



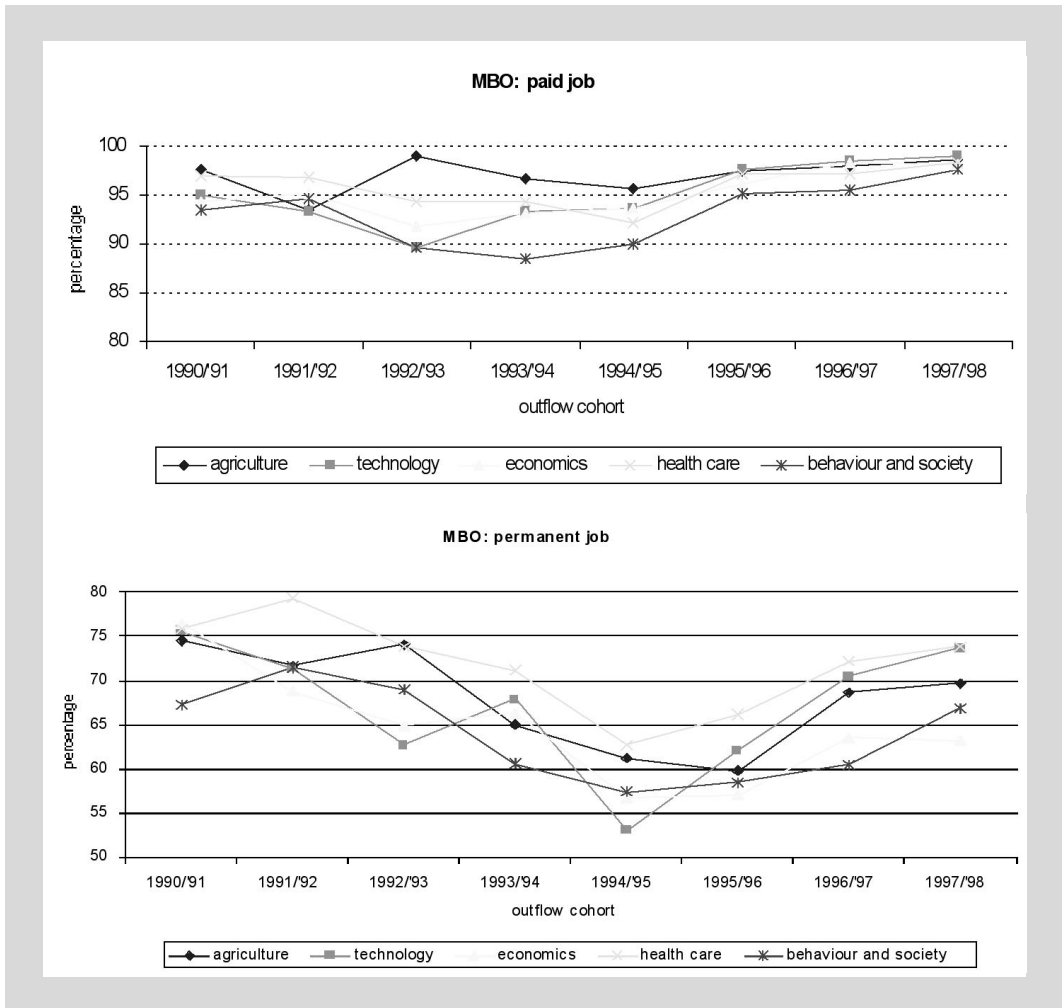


Figure 11.2: Developments in various indicators of the chance of having a job for MBO school-leavers (long tracks)

Source: ROA, RUBS 1992-1999.

The chance of having a paid job decreased at the beginning of the 1990s, and subsequently increased sharply. At this moment, there is almost full employment among school-leavers who present themselves on the labour market. Unemployment among MBO school-leavers was even less than 2% for the 1997/98 outflow cohort. In the period surveyed, the agricultural sector has always had the lowest unemployment rate, but the differences between the educational sectors are very small. For this reason, we have not been able to observe any effect of the introduction of the qualification structure into the agricultural sector (see table 11.2).

The changes in the number of school-leavers with a permanent job follow developments in paid work with a delay. Apparently, when employers assign permanent jobs, they are reacting to the state of the economy. The number of permanent jobs was lowest for school-leavers in the 1994/95 cohort; after that, the so-called flexibilisation trend on the labour market for school-leavers turned around. In the most recent outflow cohort, approximately 70% have a permanent job. If we look at the differences

between educational sectors, we see that the percentage of school-leavers with a permanent job is lowest in the economics, and behaviour and society sectors. School-leavers with an education in health care have the greatest chance of a permanent appointment. Those who were educated in agriculture or technology take a position in the middle, with the pattern of the latter group of school-leavers proving to be very sensitive to economic fluctuations.

Indicator	Effect introduction QS in agricultural sector		
	model 3 <sup>a</sup>	model 3 <sup>b</sup>	model 3 <sup>c</sup>
MBO (long tracks)			
Labour market			
Paid job	0.352	0.360	-0.353
Permanent job	-0.218**	-0.215**	-0.073
Job at right level	-0.178*	-0.203**	-0.217**
Wages (natural logarithm) <sup>d</sup>	0.150**	0.137**	-0.012
KMBO (short tracks)			
Labour market			
Paid job	-0.112	-0.083	-0.607
Permanent job	-0.341	-0.334	-0.189
Job at right level	-0.371	-0.410	-0.725**
Wages (natural logarithm) <sup>d</sup>	0.032	0.044	-0.036

Notes: \* =  $p < 0.05$ ; \*\* =  $p < 0.01$ ; <sup>a</sup> = checked for educational sector; <sup>b</sup> = checked for educational sector, ethnicity, gender, previous education and age; <sup>c</sup> = checked for educational sector, ethnicity, gender, previous education, age and outflow cohort; <sup>d</sup> = non-standardised regression effects, instead of logit effects.

Table 11.2: Effects of the introduction of the qualification structure into the agricultural education sector on the labour market position of school-leavers in (KMBO): logit effects

Source: ROA, RUBS 1992-1999

The first impression is that the introduction of the qualification structure into the agricultural education sector has led to a decrease in the chance of finding a permanent job (see table 11.2). This effect disappears, however, as soon as we take into account general developments on the labour market.

The indicators of the chance of finding a job for school-leavers in KMBO show a much more whimsical development (see figure 11.3). In general, the chance of finding a paid job has increased for KMBO school-leavers. In the past, employment perspectives in particular in the health care sector lagged behind other sectors, but today the difference is very small. Just like in MBO, there are at the moment hardly any differences between education sectors in KMBO. The chance of finding a permanent job has not changed much across the board. However, there are considerable shifts between sectors that differ

greatly from each other. For example, the chance of a permanent job for those with a technical education has increased sharply in the course of time. In 1990/91, 40% of all school-leavers in the technology sector had a permanent position, while this percentage was more than 70% in 1997/98. In the economics sector, on the other hand, the situation deteriorated dramatically.

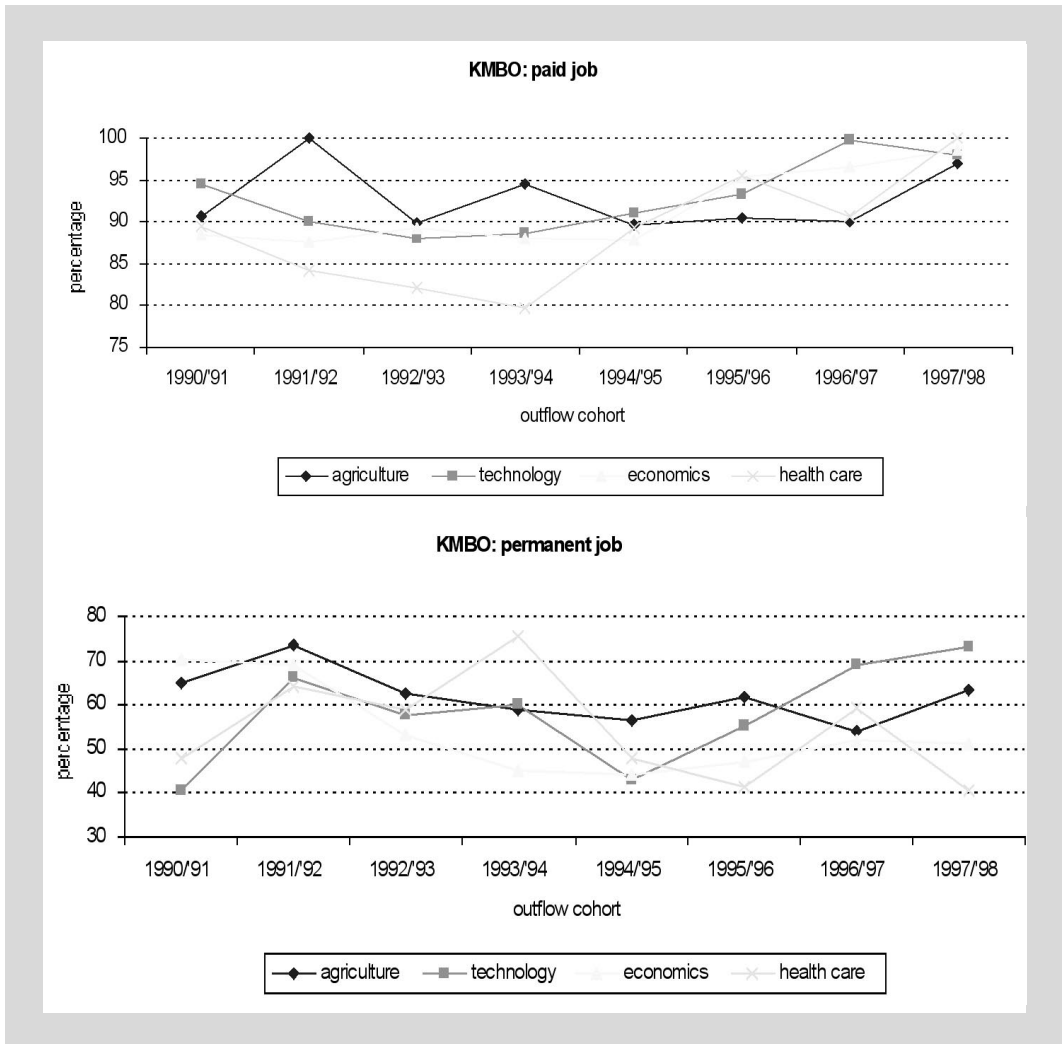


Figure 11.3: Developments of various indicators of the chance of finding a job for school-leavers in KMBO (short tracks)

Source: ROA, RUBS 1992-1999

Whereas about 70% of school-leavers in the economics sector had a permanent job in 1990/91, this figure had dropped to only 50% in 1997/98. The situation for the agricultural sector hardly changed in the period covered by this study. This does not mean, however, that developments in the agricultural sector – as a result of the introduction of the qualification structure – were significantly different from those in the other education sectors, as can be seen from table 11.2.

Developments in the quality of work have also changed in the course of time. Figure 11.4 represents these changes for MBO school-leavers. With respect to the chance of finding a job at least at one's own educational level, we may conclude that this initially decreased sharply at the beginning of the 1990s, only to rise steadily during the second half of that decade. In spite of this rise, the percentage of school-leavers from the most recent cohort that have a job at their own level is still 7% below the comparable percentage of the oldest cohort (81% in 1990/91 against 74% in 1997/98). Overeducation has therefore become a greater problem among MBO school-leavers during the past decade. Differences between educational sectors show that the position of the agricultural sector has become a great deal less favourable than that of the other sectors. In addition, the situation for the agricultural sector worsened after the introduction of the qualification structure (see table 11.2). The estimated difference in the odds ratio is 0.805 (e-0.217). Further analysis (Wolbers, 2001) proved again that – as soon as a subdivision is made, based on the level of the agricultural education completed – this deterioration only affects school-leavers who left their study at level 3.

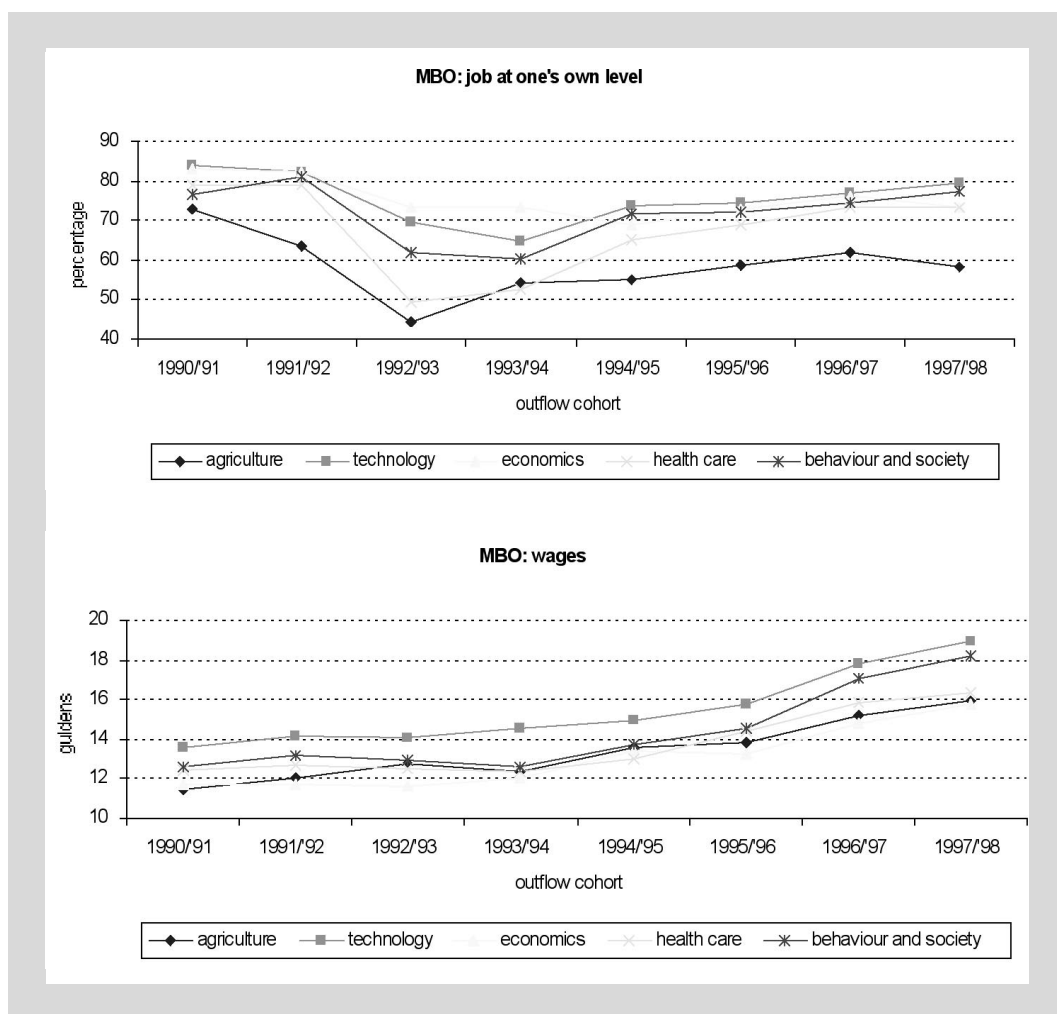


Figure 11.4: Developments of various indicators of the quality of work among MBO school-leavers (long tracks)

Source: ROA, RUBS 1992-1999

Wages for MBO school-leavers with a diploma have risen sharply during the past few years. During the period of this study, average gross hourly wages rose from NLG 12.30 to NLG 17. This is an increase of a good 38%. To some extent, this increase is due to the reduction in working hours. We should also take into account inflation in this period. Nevertheless, part of the wage developments reflects a real increase in wages. In this way, the current shortage on the labour market is manifesting itself in a rise in starting salaries for school-leavers. The wage development that was observed applies almost equally to all educational sectors, although there are absolute differences in wages. Gross hourly wages are highest among those with a technical education, followed by school-leavers from the behaviour and society sector. In the other sectors, gross hourly wages are considerably lower. At first sight, it seems as if the introduction of the qualification structure into the agricultural sector has led to an increase in wages (see table 11.2). However, if we take into account the general increase in starting salaries, the effect of the introduction of the qualification structure disappears (compare models 1 and 2 with model 3).

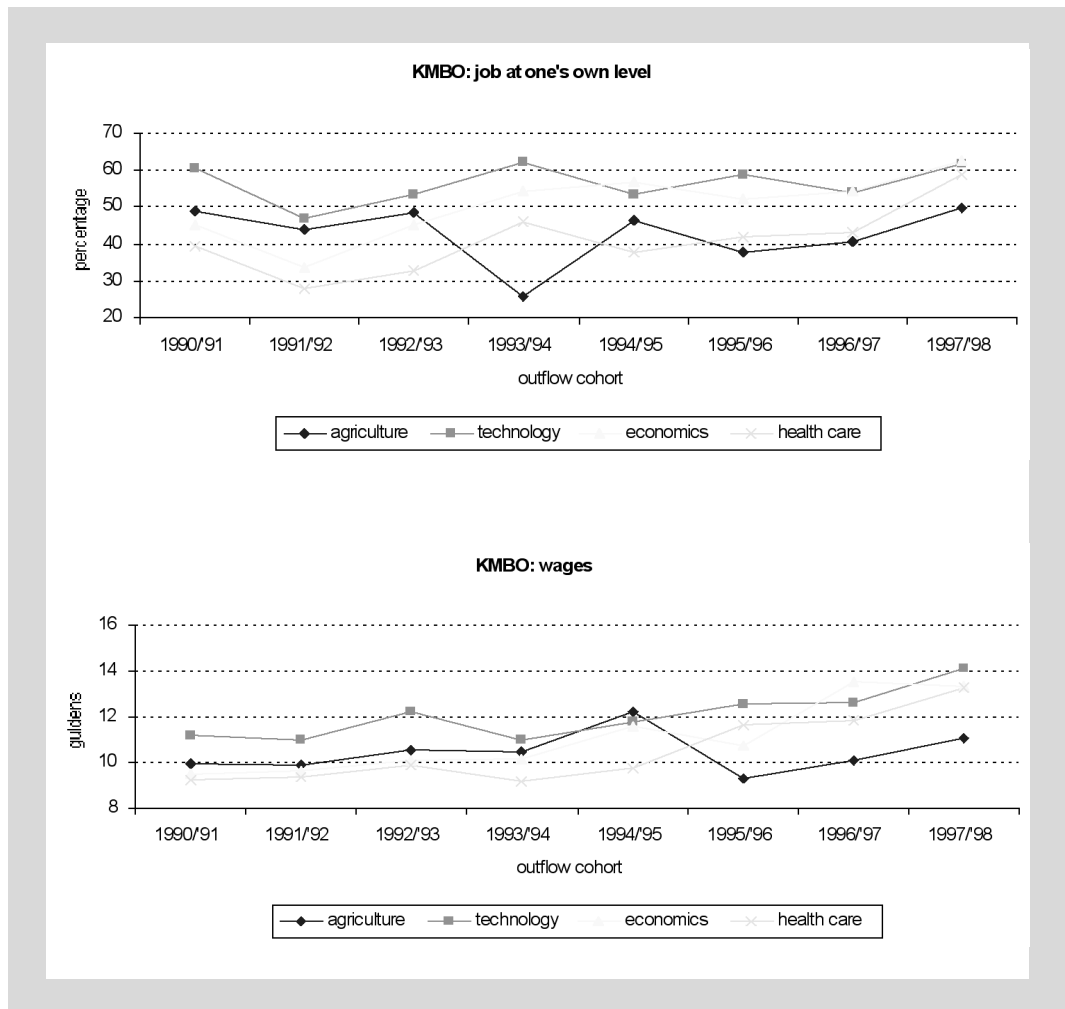


Figure 11.5: Developments of different indicators of the quality of work for KMBO school-leavers (short tracks)

Source: ROA, RUBS 1992-1999

Figure 11.5 shows the developments in the quality of work for *KMBO* school-leavers. The figures presented indicate that the chance of work at one's own level increased for *KMBO* as a whole during the period that was investigated. At this moment, approximately 60% of all school-leavers who work have a job that matches their educational level. The observed increase can be attributed entirely to the health care and economics sectors, where the number of school-leavers working in a job at *KMBO* level increased by 19% and 17%, respectively. In the technology and agricultural sectors, little has changed with respect to the number of school-leavers working at a matching level over the past few years. For the agricultural sector, this means that its position has deteriorated in relative terms. Using a multivariate analysis, we find that this is related to the introduction of the qualification structure. Table 11.2, after all, shows that the chance of a matching job is significantly smaller for the outflow cohorts from the new qualification structure.

Like the wages of *MBO* school-leavers, those of *KMBO* school-leavers have also increased sharply during the past few years. At this moment, average gross hourly wages are NLG 13.40 (this would now equal € 6.08). This is almost NLG 3.50 less than those of *MBO* school-leavers. *KMBO* school-leavers with a technical education earn the most. However, their advantage has almost been eliminated by school-leavers from the economics and health care sectors. The income position of school-leavers in the agricultural sector appears to have deteriorated in relative terms over the past few years. Table 11.2, however, does not show that this deterioration can be attributed to the introduction of the qualification structure in this sector.

## 11.5 General opinion of study programmes

At the end of this chapter, we discuss the general opinions held by school-leavers of the study programmes that they completed. This is a subjective evaluation of the study taken, focusing on the question of the extent to which the study programme had prepared them adequately for their next destination, as well as a statement on whether, looking back, they were satisfied with the choice made in favour of the programme in secondary vocational education.

With respect to their opinion of the match between the education completed and the subsequent destinations of school-leavers, we highlight two aspects. Firstly, there is the question of how *MBO* school-leavers who continue their studies in *HBO* found the match between the study programme completed and their continuing education. Secondly, a similar assessment can be made with regard to entry onto the labour market: how did working school-leavers find the match between the study programme completed and their present job? A more general evaluation of the degree of satisfaction with regard to the study programme completed can be made by asking school-leavers whether, in retrospect, they would choose the same study programme again.

Figure 11.6 shows the developments of general opinions of the study programmes completed by *MBO* school-leavers. The upper part of this figure indicates that the percentage of school-leavers who regard the match between the study programme taken and their subsequent study in *HBO* to be good was subject to fluctuations over the years, but that no trend can be observed. To be precise: the percentage for the 1997/98 outflow cohort differs by only 1% from the corresponding percentage for the 1990/91 cohort (percentages being 34% and 33%, respectively). For some educational sectors, however, trends

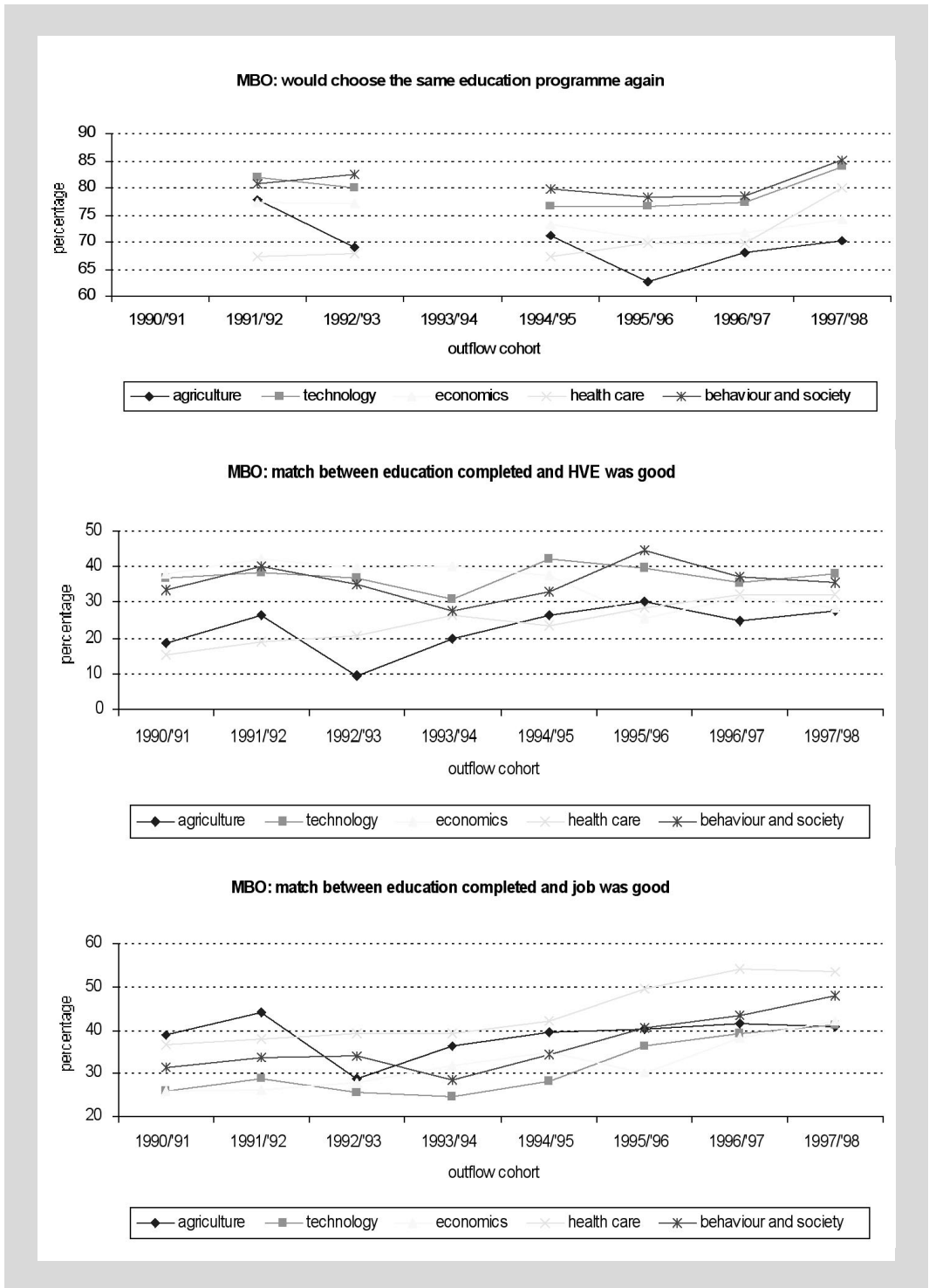


Figure 11.6: Developments of different indicators of a general opinion by MBO school-leavers (long tracks) of their study programmes  
 Source: ROA, RUBS 1992-1999

can be observed. For example, school-leavers from the economics sector are now less satisfied with the match between the education taken and continuing education than they were in the past. School-leavers who have completed a study programme in health care, on the other hand, appreciate the match between this programme and their subsequent study in *HBO* more and more. The same pattern can be observed among those with an agricultural education. In 1990/91, 19% of them considered the match to be good, whereas the percentage had risen to almost 28% in 1997/98. Table 11.3 does not show, however, that this development in the agricultural sector has anything to do with the introduction of the qualification structure into this sector. Although the effect found points in the expected direction, it is not significant.

Indicator	Effect introduction QS in agricultural sector		
	model 3 <sup>a</sup>	model 3 <sup>b</sup>	model 3 <sup>c</sup>
MBO (long tracks)			
General opinion of study programme			
Found match between education taken and HBO good	0.109	0.135	0.156
Found match between education completed and job good	0.057	0.047	-0.432**
Would choose same study programme again	-0.429**	-0.420**	-0.453**
KMBO (short tracks)			
General opinion of study programme			
Found match between education completed and job good	0.023	0.023	-0.024
Would choose same study programme again	0.134	0.133	0.016

Notes: \* =  $p < 0.05$ ; \*\* =  $p < 0.01$ ; <sup>a</sup> = checked for educational sector; <sup>b</sup> = checked for educational sector, ethnicity, gender, previous education and age; <sup>c</sup> = checked for educational sector, ethnicity, gender, previous education, age and outflow cohort; <sup>d</sup> = non-standardised regression effects, instead of logit effects.

Table 11.3: Effect of the introduction of the qualification structure into the agricultural education sector on the indicators for the general opinion of (K)MBO school-leavers regarding the education completed: logit effects

Source: ROA, RUBS 1992-1999

The positive opinion of the match experienced between the education completed and current activities increased across the board during the period under investigation. Of the most recent outflow cohort, 45% of the MBO school-leavers who work consider the match between their education and their job as good, against 30% from the cohort that goes back furthest in time. This improvement in the general evaluation of the labour market qualification of study programmes can be found in all educational sectors, with the exception of agriculture. In the latter educational sector, the percentage of school-leavers that regard the match between the education completed and their current job as good has remained constant when we compare the various outflow cohorts. This relative deterioration in the agricultural sector is related to the introduction of the qualification structure, as can be seen from the results presented in table 11.3. Further analysis (Wolbers, 2001) indicates that – contrary to the effects found earlier – the effect of



the introduction of the qualification structure into the agricultural education sector applies both to school-leavers who have completed an education at level 3 and those who left school at level 4.

Lastly, figure 11.6 shows that about three-quarters of all *MBO* school-leavers, when they look back, would choose the same study programme again<sup>35</sup>. From this, we may conclude that the majority of school-leavers are generally satisfied with the education completed. There have been few changes over the years, although it seems that general satisfaction with the education completed has taken an upward turn very recently. The results of future data collections will need to provide a greater insight into this. With respect to differences between educational sectors, we can see that school-leavers from the behaviour and society, and technology sectors are currently the ones who reply most often that they would choose the same study programme again (85% and 84%, respectively). At 70%, those who completed an agricultural education are, looking back, the least satisfied with the choice of study programme made in the past. In addition, this satisfaction level appears to have dropped since the introduction of the qualification structure. The estimated regression coefficient in table 11.3 shows that, after the introduction of the new qualification structure, the odds ratio of choosing the same education again versus not doing so, is only about two-thirds of the original odds ratio ( $e^{-0.453} = 0.636$ ). Again, this result applies to both school-leavers who completed their education at level 3 and those who did so at level 4 (see Wolbers, 2001).

As is the case in *MBO*, *KMBO* school-leavers also increasingly regard the match between the study programme completed and their current job as good (see figure 11.7). In particular, during the past few years, their opinion of the match between education and job has improved sharply. The greatest increase occurred among *KMBO* school-leavers in agriculture: from 42% in 1990/91 to 57% in 1997/98. However, this remarkable increase has nothing to do with the introduction of the qualification structure into agriculture (see table 11.3), because the other educational sectors have also experienced a reasonable increase in the percentage of school-leavers who regard the match between the education completed and their current job as good. One exception is the health care sector, where – in spite of a positive peak for the 1993/94 outflow cohort – hardly any changes have been observed in their opinion concerning the match between education and work.

With respect to satisfaction regarding the choice of a *KMBO* programme made in the past, we can see that this has increased in particular among school-leavers in the health care and economics sectors. For the former sector, the increase is 22% (from 49% to 71%); for the latter, it is 15% (from 51% to 66%). The opinion of those with a technical education has not changed much in the course of time. This also applies to agricultural school-leavers, if we compare the percentages of the first and the last cohort. During the intermediate period, however, there have been considerable fluctuations in the percentage of school-leavers who, with hindsight, would choose the same study programme again. These fluctuations have nothing to do with the introduction of the qualification structure into agricultural education, as can be seen from table 11.3.

35 Unfortunately, this information is not available for the 1993/94 outflow cohort.

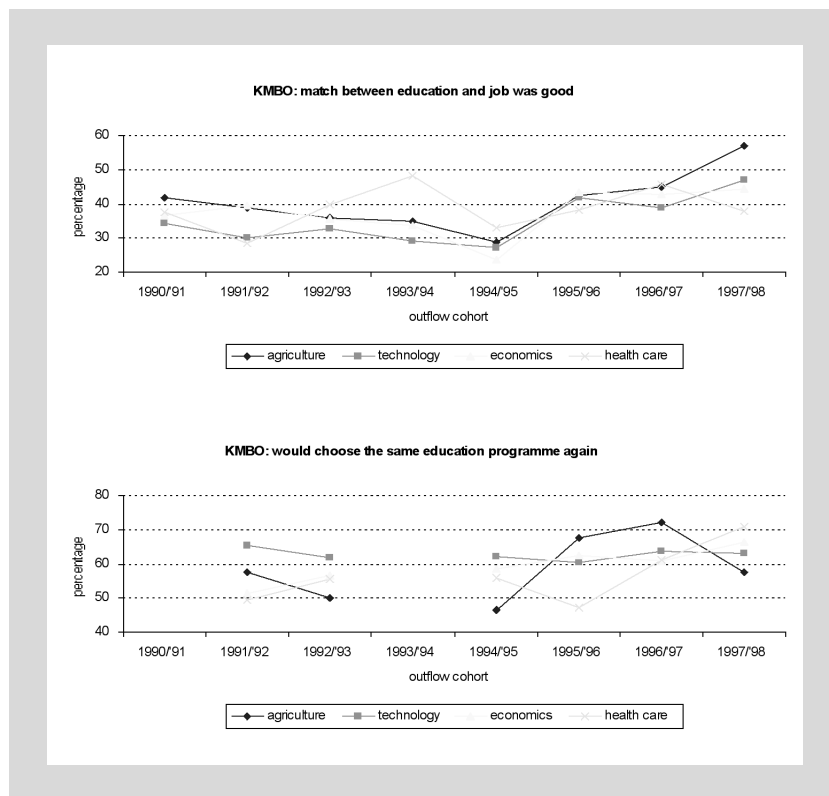


Figure 11.7: Developments of different indicators of the general opinion of KMBO school-leavers (short tracks) of their study programmes

Source: ROA, RUBS 1992-1999

## 11.6 Conclusions and discussion

In this chapter, we have investigated how the transition from secondary vocational education to subsequent destinations takes place for individual school-leavers. This was done by focusing on the development of external returns to education, with the agricultural education sector exhibiting the effect of the introduction of the qualification structure on external returns of secondary vocational education. If we consider the qualification objectives of study programmes in secondary vocational education, the transition process relates both to the position in continuing education and to that upon entering the labour market. When we determined the external returns of study programmes, we therefore dealt in detail with these two qualification objectives. For our study, we have made use of ROA school-leaver surveys, which have been held since the beginning of the 1990s, and which provide information on the outflows and destinations of school-leavers in secondary vocational education.

Considering the limited amount of time that has passed since the introduction of the WEB in August 1997, the outflow from new study programmes for educational sectors other than the agricultural sector cannot yet be observed. The evaluation made therefore has the nature of a pre-test for the other sectors. A reliable evaluation of the effect of the new Act can only be made in a few years' time. For agricultural education, we were able to compare the transition process before and after the

introduction of the qualification structure, because all study programmes in this sector introduced the new qualification structure in August 1992.

The main conclusions from the pre-test are:

- transfer from *MBO* (long tracks) to *HBO* increased considerably over the years, from 25% in 1991 to 39% in 1998. One-third of *MBO* school-leavers who continue their studies in *HBO* consider the match between *MBO* and *HBO* to be good;
- approximately 15% of *MBO* school-leavers who continue their studies drop out of *HBO*. This dropout is comparable to the dropout of *HAVO* school-leavers in *HBO*. A quarter of all dropouts switch to a different study programme;
- the chance of having a paid job decreased at the beginning of the 1990s, as a result of economic developments on the labour market, but then increased sharply again. At the moment, there is a very tight labour market situation. This can be concluded both from the low unemployment rate, the increasing number of permanent jobs and the relatively large wage increases;
- about three-quarters of all school-leavers in *MBO* have a job for which their education level is a minimum requirement. In *KMBO*, this percentage is lower (60%). A positive opinion of the match between education and job has improved considerably in the course of time; approximately 50% consider this match to be good;
- In general, school-leavers are satisfied with the study programme that they have completed. Three-quarters of all *MBO* school-leavers would choose the same study programme again; among *KMBO* school-leavers, the percentage is slightly lower.

The prevailing picture is that the transfer from secondary vocational education to continuing education has increased, without this leading to a higher dropout rate. However, dropout rates were and are still quite high. In general, the transition from secondary vocational education to the labour market is fairly successful. The position of *MBO* school-leavers (long tracks), however, is clearly better than that of *KMBO* school-leavers (short tracks).

The agricultural education sector offers the possibility of determining what the effects of the introduction of the new qualification structure have been. The main conclusions are as follows:

- transfer to *HBO* decreased after the introduction of the qualification structure. This effect only applies to 3-year, not 4-year programmes;
- the match between education and work deteriorated after the introduction of the qualification structure. School-leavers from 2 and 3-year programmes less often find a job for which their educational level is required. In addition, school-leavers from all agricultural study programmes consider the match between education and work to have deteriorated;
- the satisfaction of school-leavers with the study programme that they have completed decreased after the introduction of the qualification structure.

Although both before and after the introduction of the qualification structure, the 3-year programmes did not and do not formally offer the possibility of a transfer to *HBO*, such transfers did, in fact, exist. In this sense, we may conclude that the introduction of the qualification structure into the agricultural education sector has led to a deterioration of the transition to continuing education and the labour market. This deterioration appears to occur in particular in the 3-year programmes.

How can this be explained? A number of study programmes that used to be long-track *MBO* programmes, were devalued to level 3 programmes after the introduction of the qualification structure. As these programmes no longer provide direct access to *HBO* in the new qualification structure, this has resulted in a decrease in the total transfer from the agricultural education sector into *HBO* after the introduction of the qualification structure. In addition, it appears that employers do not value the new level 3 programmes in the same way in the labour market as the original *MBO* programmes, which means that the match between education and work has deteriorated across the board.

This gives rise to the question of whether splitting *MBO* into two levels (level 3 and level 4) was such a good idea. Firstly, it has put a strain on the transfer qualification, because school-leavers at level 3 no longer have sufficient access to *HBO*, while the corresponding study programmes in the old system did provide such access. In addition, the labour market qualification is compromised to some extent, as employers appear not to be able to acknowledge the value of an education at level 3. It is likely that the new qualification level is either not clearly recognised or not recognised at all in the occupational field, and employers prefer to employ such school-leavers at a slightly lower level, in order to avoid the high training costs expected. Apparently, school-leavers also experience this increased discrepancy between required and acquired qualifications, as they are less inclined to say that the match between the education completed and their job is a good one.

It is conceivable that such a problem also occurs in the case of the division of *KMBO* into levels 1 and 2. Unfortunately, an adequate pre-test is not available here, because of the lack of a study programme that matches level 1 in the old qualification structure. In addition, agricultural education has no programmes at level 1 in the new situation. The reason for this is the very problem described above. Level 1 provides problems, because business and industry fail to recognise it as a qualification. Moreover – even if the work existed – it is not regarded as relevant for education, but as unskilled work without any level (see Gielen & Le Rütte, 1998: 105).

To what extent the above also applies to the introduction of the Adult and Vocational Education Act into the other educational sectors cannot be determined at this moment. It seems, however, that the division into levels in the new qualification structure does not always closely match the number of levels recognised by employers on the labour market. As soon as a full cohort of school-leavers has left the system in the new qualification structure, we can see to what extent this is, in fact, the case.

## References

- Bishop, J.H. (1995). Vocational education and at risk youth in the United States. *Vocational Training*, 6, 34-42.
- Bishop, J. (1989). Occupational training in high school: When does it pay off? *Economics of Education Review*, 8, 1-15.
- Boesel, D., Hudson, L., Deich, S. & Masten, C. (1994). *National assessment of vocational education, Vol. 2: Participation in and quality of vocational education*. Washington, DC: U.S. Department of Education.
- Cörvers, F. (1998). *Sector-specific, intermediate and high skills and their impact on productivity and growth in manufacturing sectors of the European union*. In: *Vocational education and training – the European research field*, Background report, Volume 1. Thessaloniki: CEDEFOP.

- Finegold, D. & Soskice, D. (1988). The failure of training in Britain: analysis and prescription. *Oxford Review of Economic Policy*, 4, 3, 21-53.
- Geerligs, J.W.G. (1999). *Design of responsive vocational education and training. A reconstruction of a systems change in agricultural education*. Delft: Eburon.
- Gielen, P.M. & Rütte, R.J.M (1998). *Herkennen en erkennen. Op weg naar een transparant landbouwonderwijs*. Wageningen: STOAS.
- Glebbeek, A. (1988). De arbeidsmarktpositie van opleidingen. Ontwikkeling en illustratie van een theoretisch model. *Tijdschrift voor Arbeidsvraagstukken*, 4, 75-89.
- Mason, G., Ark, B. & Wagner, K. van (1994). Productivity, product, quality and workforce skills: Food processing in four European countries. *NI Economic Review*, February, 62-83.
- Ministerie van Onderwijs, Cultuur en Wetenschappen (1996). *Wet educatie en beroepsonderwijs. De wet in hoofdlijnen*. 's-Gravenhage: SDU.
- Müller, W. & Shavit, Y. (1998). The Institutional Embeddedness of the Stratification Process: A Comparative Study of Qualifications and Occupations in Thirteen Countries. In: Shavit, Y. & W. Müller (1998). *From School to Work. A Comparative Study of Educational Qualifications and Occupational Destinations*. Oxford: Clarendon Press.
- OECD (2000). *From Initial Education to Working Life. Making Transitions Work*. Paris: OECD.
- ROA (1998). *Schoolverlaters tussen onderwijs en arbeidsmarkt 1997*. ROA-R-1998/5. Maastricht: ROA.
- ROA (2000). *Schoolverlaters tussen onderwijs en arbeidsmarkt 1999*. *Statistische Bijlage*. ROA-R-2000/7B. Maastricht: ROA.
- Ryan, P. (ed.) (1991). *International comparisons of vocational education and training for intermediate skills*. London: Falmer Press.
- Ryan, P. (2001). The School-to-Work Transition: A Cross-National Perspective. *Journal of Economic Literature*, 39, 34-92.
- Steedman, H. & Wagner, K. (1987). A second look at productivity, machinery and skill in Britain and Germany. *NI Economic Review*, November, 84-97.
- Thurow, L. (1975). *Generating inequality*. New York: Basic.
- Velden, R.K.W. van der & Wieling, M.H. (1994). De arbeidsmarktkansen per opleiding. In: Scholten, H. & de Groot, S.C. (red.). *Arbeidsmarkt en sociale zekerheid. Beleid in beweging*, pp. 106-114. Tilburg: IVA.
- Velden, R.K.W. van der & Wolbers, M.H.J. (2000). De sleutelmacht van de opleiding. Een verklaring voor verschillen in arbeidsmarktpositie tussen opleidingen. *Mens en Maatschappij*, 75, 185-202.
- Velden, R.K.W. van der & Wolbers, M.H.J. (forthcoming). The integration of young people into the labour market. The role of training systems and labour market regulation. In: Müller, W. et al. (eds.). *Transitions from education to work in Europe. The integration of youth into EU Labour markets*. Oxford: Oxford University Press.
- Wolbers, M.H.J. (2001). De externe effecten van het secundair beroepsonderwijs. In: Velden, R.K.W. van der (ed.). *Toegankelijkheid, Intern Rendement en Doorstroom, Theme Report 4*, pp.175-202. Zoetermeer: Stuurgroep Evaluatie WEB.



# Section 6

The quality of the  
self-regulated institutions





## 12 The Policy-making capacity of community colleges

PETER KARSTANJE & LOUISE VAN DE VENNE

*A study was conducted into the capacity of adult and vocational education institutions to pursue their own policies as part of the evaluation of the WEB (Adult and Vocational Education Act) (Karstanje, Esch, Pauwels, Van Ingen, Berdowski, Hoeben, Vemeulen, Vink, Wiekeraad & Van de Venne, 2001). In view of the fact that this Act has only been in force for a few years, this study was rather premature. The institutions, which have often had to cope with the consequences of mergers at the same time as the introduction of the WEB, had their hands full. Consequently, it would not have been reasonable to cherish too high expectations of their capacity to pursue policy by that time. This paper discusses a number of findings from the study mentioned above. First, it presents a profile of instruments of the capacity to pursue policy in the early days after the introduction of the WEB; it then discusses more recent research. Finally, it offers a number of possible explanations for the fact that institutions still do not seem to be able to pursue their own policies as well as they might.*

### 12.1 Capacity to pursue policy

The capacity to pursue policy means the ability of organisations (or the people who make up the organisations) to develop, implement and evaluate policy that is geared to common goals, by making use of the scope that is at their disposal for that purpose. For organisations such as community colleges, which are open to their local environments, it is essential that all levels of the organisation have the capacity to pursue policy. This is because being open to the local environment demands continual interaction between the subdivisions of the organisations (the product-market combinations) and the local environment. This demands a high level of innovation skills from the subdivisions of the organisation and from the organisation as a whole. An essential condition for 'the capacity to innovate' is the ability of the organisation to 'learn'. As community colleges almost by definition have to be open organisations, it is important that they possess the characteristics of a learning organisation to a reasonable extent.

The term 'learning organisation' has many meanings. Swieringa et al. (1990) define the learning of organisations as the changing of the behaviour of the organisation, which is seen as a collective learning process. Collective learning is aimed at increasing the collective capabilities of the members of an organisation or of subdivisions of an organisation. Learning organisations are able to learn, but they are

also able to learn how to learn (meta-learning): they have the ability to examine their own functioning on a regular basis. They have mastered the art of adapting quickly, whilst at the same time maintaining their own school of thought and retaining their own identity. Senge (1990, 2000) distinguished five characteristics of learning organisations:

- personal mastery, that is the ability to actually realise goals or a high ideal;
- awareness of mental models that determine how people see things and dictate their actions, whilst at the same time having the capacity to change these mental models;
- development of a joint vision;
- learning in teams;
- thinking in terms of systems, so that people can recognise patterns, thereby making it possible to change things.

Simons (1997) formulated the following characteristics of learning organisations:

- they endeavour to increase learning capacity at organisation, group and individual levels;
- they pursue a deliberate learning policy;
- these efforts form part of a focus on effectiveness, defined in terms of clients' wishes;
- they facilitate learning at organisation, group and individual levels;
- they endeavour to align the three levels of learning;
- they aim to maintain continuity;
- they aim to maintain their own schools of thought.

Key aspects of the capacity to pursue policy emerge from this exploration of concepts:

- a it is not only something for top management to attend to, but is an aspect of all segments and layers of the whole organisation;
- b formulation of the goals and mission of the organisation and of subdivisions of the organisation is essential;
- c learning takes place at different levels of the organisation;
- d flexibility, especially the ability to respond to external and internal impulses, is important.

Bearing these aspects in mind, we use the definition below:

*The capacity of institutions to pursue their own policies can be defined as the capacity of the organisation as a whole to set goals in relation to the demands of internal and external actors, to implement these goals and to carry out a cyclical process of evaluation and adjustment of processes, applying optimum flexibility. In this context 'organisation as a whole' means among other things that consistent policy is developed and implemented in the different layers of management and in the different units that are geared to communally accepted goals.*

Key figures in the world of adult and vocational education appear to use variants of this definition (Karstanje et al., 2001, 103). For instance, the Council of Agricultural Training Centres defines 'capacity to pursue policy' as the ability to respond adequately to the local environment; in simple terms, this puts the self-corrective capacity of the institution at the centre of this vision. The capacity to pursue a good quality assurance policy, in the eyes of the Agricultural Education Inspectorate, means that ideas work through to the shop floor, so quality assurance really is built into the system (Karstanje et al., 2001). The Adult and Vocational Education Inspectorate has focused mainly on consistency of policy

throughout the whole community college. Employees of the LNV (Ministry of Agriculture) also take the view that the capacity to pursue policy is only adequate if it is school-wide.

## 12.2 'Past' research

'Past' research means research into the situation in the early stages of the introduction of the *WEB*, but in view of how recent this is, it cannot really be said to be 'past'. The *WEB* did not lay down regulations on the policy-making capacity of Community colleges. This is mentioned though in the Memorandum on the Key Issues of the Adult and Vocational Education Act (29 March 1993), in which members of the government expressed their policy plans for the reform of existing legislation in the field of vocational and adult education. In the ensuing debate, the national government underlined the importance of working out various administrative objectives, such as strengthening the capacity of educational institutions to pursue their own policies. In that context, efforts were made to develop a single consistent system of control for the various sections. This control system would give the institutions and the other actors a better framework than the one existing at the time, with a view to facilitating integrated policy-making with a clear delineation of duties and responsibilities, thereby strengthening the administrative power of the institutions and the actors.

### CONTENT OF POLICY AND EDUCATION POLICY

One of the Dutch institutes for educational research was commissioned by the Ministry of Education to follow the development of educational institutions as they transformed themselves into professional organisations over a number of years. The start measurement of the research into the professionalisation of educational organisations in the adult and vocational education sector (Van Esch & Tiebosch, 1998) was administered to top and middle management and to teachers at 10 community colleges in 1997. It is important for policy development, and certainly for the development of the capacity to pursue policy, that the organisation is clear about its goals and its education concept, and that there is openness about how the goals or mission relate to developments in the local environment of the school. These instruments turned out to be moderately well developed in the adult and vocational education institutions studied. As a rule, they had reasonably clear school and education concepts. However, the managers were generally more familiar with these than the teachers. The level of support for the mission and goals reported by the teachers and lower levels of management was still generally quite low. The central managements knew far more about the mission and goals of the community college than did the teachers, and were more committed. In particular, the engineering and technology departments did not demonstrate much commitment to the mission and goals of the organisation. The researchers did, however, find a high level of awareness of the importance of being open to external organisations (the regional business community, job centres, local authorities) among both teachers and managers.

A flexible approach to the curriculum (a customised approach, based on the content of study programmes, such as offering a range of different learning pathways) was still only found to a limited extent. The same can be said of a flexible approach to teaching: customised teaching strategies. While this was endorsed as important, it had still not been realised to any great extent. Tailoring of study programmes to the needs of the client, which can be seen as an essential element of the learning organisation, had still not really been implemented. Nevertheless, a survey carried out by the Council

for Professional Education in 1997 did show that the *WEB* had accelerated the flow of educational and teaching innovations in matters such as independent learning, problem-based learning, open learning, and information and communication technology.

#### **TEAM FORMATION OR TEAM-BUILDING**

Team-building is an important element of a learning organisation, in which people can share responsibilities as a team and learn as a team. Teachers were less positive than were managers about the closeness of the team, the sense of 'us' and mutual agreement on educational matters. Among technology teachers, in particular, there was little agreement on educational matters. In general, a much more positive picture emerged among the managers than the teachers on matters such as mutual trust, appreciation of colleagues and collegiality. Van Esch et al. (1998) concluded on this point that adult and vocational education institutions were already reasonably well on the way to a communal culture, with the exception of the engineering and technology courses.

#### **ORGANISATION**

Managers were also, as a general rule, more positive than the teachers about the way the institutions are organised. Managers reported that there were clear decision-making procedures and good coordination between the different departments of the community colleges. Teachers were much slower to recognise this rosy picture; they were especially dissatisfied with the consultative structure. It is important for a learning organisation that structures are transparent, and that procedures, working methods, the consultative structure, the systematic approach to work and quality assurance are all clear. The last point was seen as a cause for concern. One of the most important conditions for a learning organisation is that it has a quality assurance system, which both gives good indications of the situation in relation to the desired aims and encourages the introduction of improvements. In 1997, quality assurance had scarcely got off the ground.

On the fourth measurement of the Innovation Monitor that relates to 1996/1997, Van Esch, Vrieze and Laemers (1999) conclude:

- the different aspects of increasing flexibility (curricular, teaching methods, organisational, supervision/testing and qualification) are only found in a minority (a quarter to a third) of the training courses. This is partly because central management has been very cautious in this area;
- compared with a few years ago, when whole-class teaching was still the norm, teachers can be seen to be taking on new tasks and roles: development of a vision of learning and teaching, promotion of independent learning, working on new learning and coaching methods, paying attention to learning to learn and conveying to course participants the importance of taking responsibility for their own learning process. However, other instruments that might have indicated an increased learning capacity at teacher level, such as equipping themselves to develop their professional practice and the implementation of a structure of qualifications for adult education, are rarely found. The practical interpretation of the educational content of the open learning centre is still in its infancy. Developments in this field have probably been encouraged by the policy on new duties and roles for teachers;
- in-service training policy is increasingly embedded in the general policy of the institution but there has still been no evaluation of in-service training or how successful it is. This lack of feedback mechanisms damages the organisation's capacity to learn;

- community colleges seem to be reasonably well on course towards a communal culture (except in the engineering and technology departments). A reasonable amount of teamwork can be found (except in the engineering and technology sector).

#### SELF-CORRECTIVE CAPACITY

Since 1997, the Adult and Vocational Education Inspectorate has evaluated and analysed the quality assurance reports of community colleges. In its reports on the matter, the Inspectorate stated that, in 1996-1997, it had still not found a systematic approach to quality assurance using a cyclical model anywhere. Important preconditions for the creation of a quality cycle, such as a functioning management information system and the practice of taking zero measurements, had still not been met. In that year, according to the Inspectorate, no institution anywhere had the capacity to correct itself. The Inspectorate expressed the view that this was understandable given the phase of development of the quality assurance systems of the community colleges at the time. However, since the institutions had hardly managed to meet certain essential conditions for quality assurance, the situation gave cause for concern. These conditions are: the presence of an adequate quality assurance organisation, support from the staff, measurable objectives and a management information system. Self-corrective capacity increased slightly in 1998. The Education Inspectorate reported reasonable conditions for the development of a self-corrective capacity in 7 per cent of the institutions. These were mainly nongovernment-funded institutions that had been working on developing quality assurance over a rather longer period. In another 16 per cent, there were visible signs of initiatives that could lead to this. This means that in over three-quarters of the institutions the conditions for developing the capacity for self-correction were still completely absent. The situation improved further in 1999, when the Inspectorate reported that over 40 per cent of the institutions scored 'satisfactory' on the self-corrective capacity point. Nongovernment-funded institutions scored better than the government-funded ones.

The Innovation Monitor (Van Esch & Vrieze, 1996; Van Esch & Vrieze, 1997; Van Esch, Vrieze & Laemers, 1997; Van Esch et al., 1999) is a meaningful reference source for following the development of the capacity of organisations to pursue policy. It comes out once a year and provides information about innovations, including the extent to which institutions endorse instruments that relate to their capacity to pursue policy. This mainly concerns the endorsement of the following key objectives:

- improvement of management;
- development of quality assurance;
- promotion of management staff development;
- promotion of teaching staff development.

Objective	Sept. 1993	Nov. 1995	Dec. 1996	Dec. 1997
Improve management	37.3	70.8	74.5	85.3
Develop quality assurance	–	78.9	81.9	97.1
Promote management staff development	–	–	–	79.4
Promote teaching staff development	–	–	–	91.1

Table 12.1: Percentage of institutions that expressly endorse these key objectives ( $n=34$ , Dec. 1997)

Source: Van Esch et al. (1999), p.22.

Table 12.1 shows that the degree of endorsement of the objectives that can contribute to the capacity to pursue policy has increased over the years. The promotion of management staff development, which is considered to be an essential element of policy-making capacity, lags conspicuously behind the other instruments, however.

### 12.3 Recent research

As part of the evaluation of the *WEB* carried out in 2000/2001, additional research into aspects of the capacity to pursue policy has been carried out recently. A survey of a random sample of 17 community colleges and 6 agricultural training centres was carried out, in which the top management were interviewed on the telephone, and department heads and course coordinators were given written questionnaires. Interviews were also held with key figures in the Adult and Vocational Education Inspectorate, the Agricultural Education Inspectorate, the Adult and Vocational Education Council, the Council of Agricultural Training Centres as well as the relevant ministries.

#### **EDUCATION POLICY AS REPORTED BY KEY FIGURES**

In interviews it conducted in 2000 (Karstanje et al., 2001), the Adult and Vocational Education Inspectorate found major differences between community colleges. Large variations in education policy were also found within individual community colleges (including monitoring of the quality of teachers, course programmes and student outcomes). Within community colleges, a large degree of variation was also found in education policy (in domains such as study programmes, student outcomes and monitoring of the quality of teachers). Unity in education policy was not often found. There was also still no question of a 'market-driven culture' when it came to performance in education.

The Adult and Vocational Education Council is also of the opinion that the capacity of institutions to pursue their own education policies is very variable. It takes the view that the presence of advisory staff, possibly as a result of mergers, is a very important factor in the increase in policy-making capacity in this area. On the other hand, the Inspectorate argues that some community colleges adopt an overdependent attitude to external rules, which can operate at the expense of their capacity to pursue policy. The Inspectorate's 'ex-post' rules with regard to comprehensive inspections and external legitimisation of educational and examination programmes play a major role in this. It observes that the *WEB* provides hardly any guidance on education policy. Some schools would have problems with this, for fear of doing the wrong thing.

In general, the Adult and Vocational Education Council is reasonably positive about knowledge management and regional contacts. Nevertheless, it admits that there are still community colleges that have no regular contacts with business and industry in their region. It also takes the view that community colleges do not have sufficient capacity to pursue policy on the distribution of resources within their organisations. It is felt that the capacity to pursue policy is severely curtailed by the qualification structure, which has created over-rigid one-to-one relationships, in which combinations of courses demanded by regional business and industry are not possible. In that sense, the community colleges are unable to develop their own course structures.

### EDUCATION POLICY AS REPORTED BY THE CENTRES

The situation regarding the capacity to pursue policy on educational matters was also investigated by presenting a number of statements on education policy, human resources policy and quality assurance to members of the top management, sector directors and course coordinators. Table 12.2 shows the scores on the separate items. The data were gathered from about 90 respondents.

Table 12.2 clearly shows that the average scores are all around the mid-point on a five-point scale. This indicates that the respondents did not really consider the instruments they were asked about to be absent, but nor did they report that the institutions were actively engaged in these educational developments. It is noticeable that the administrative topics dealing with registration matters are applied in the centres the most, for instance: the gathering of indicators on intake and transfer of students and on graduates. Members of the executive board generally responded more positively on the presence of aspects of education policy (their average is 3.69) than course managers (average 3.26) and sector directors (average 3.06).

Education policy	Average. N=86-90	N=11-14 EB	N=37-38 SD	N=36-38 CC
a. Everyone knows the mission of the institution	3.00	3.36	3.03	2.86
b. The mission plays a role in decision-making at departmental level	3.20	3.45	3.13	3.19
c. The institution operates a defined educational concept relating to how education is provided	3.53	3.85	3.39	3.57
d. Measurable targets have been formulated for the course	3.32	3.54	3.08	3.49
e. The extent to which targets are being realised is investigated at least once a year	3.22	4.00	2.95	3.24
f. Data (indicators) are gathered on intake and transfer of students and on graduates	3.58	4.21	3.24	3.70
g. A plan for improvement is drawn up annually for the course/department	3.27	3.86	3.14	3.18
h. There is a whole-centre policy on testing and how feedback is given to course participants	2.98	3.57	2.66	3.08
i. Available data are used to adjust course programmes	3.29	3.50	3.24	3.26
j. The courses operate a student monitoring system	3.39	3.57	3.34	3.37
k. The use of ICT is integrated into the courses	3.24	3.31	3.19	3.28

Table 12.2 Situation regarding capacity to pursue policy, broken down by items relating to policy on educational matters (1=negative; 5=positive)

Notes: EB: Executive board; SD: Sector director; CC: Course coordinator

**QUALITY ASSURANCE AS REPORTED BY KEY FIGURES**

The key figures interviewed reported that, in general, the capacity of institutions to pursue quality assurance policy as part of their education policy is not very well developed. In both agricultural training centres and community colleges, policy-making capacity in relation to quality assurance is extremely variable, according to the Council of Agricultural Training Centres and the Agricultural Education Inspectorate, on the one hand, and the Adult and Vocational Education Council, the Adult and Vocational Education Inspectorate and the Ministry of Education, on the other. The capacity of institutions to pursue their own policies is closely associated firstly with the quality of management and governance, and secondly with the scope they have to make policy. As far as the quality of management and governance is concerned, it emerges that the centres have very different views on autonomy: one community college/agricultural training centre makes far more use of the scope to make its own policy than another. The more autonomous action the actors take, the greater their capacity to pursue policy (argues the Council of Agricultural Training Centres).

The Ministry of Education judges the accreditation and certification of community colleges to be getting better and better. The Ministry of Agriculture notes that the government does not have a very clear picture of precisely what is going on in the centres. It is clear that the agricultural training centres have devoted more attention to quality matters in recent years, especially since they were required to submit quality reports to the Inspectorate. With regard to the capacity to pursue policy, the Ministry notes that this is highly dependent on the size of the institution: the smaller agricultural training centres, in particular, are not really engaged in developing long-term strategies and their actions are very short term.

The differences between the centres as far as policy-making capacity is concerned can be partly, but not entirely, explained by the ups and downs associated with mergers that they have had to face. Institutions are usually better at pursuing their own policies when they have been working in the same organisational structure for a considerable time, or if the last merger is already some time in the past. It seems therefore that an important condition for the capacity to pursue policy is that the organisation has settled down into a stable form.

Another indicator of the capacity to pursue a quality assurance policy is whether the organisation is oriented towards the market it serves. This aspect is especially emphasised by the Agricultural Education Inspectorate, which argues that schools that are highly focused on their students and the external environment have often made much more progress in policy-making than schools that operate more as task-based organisations. However, it also noted that the implementation of ideas on systematic quality assurance still leaves much to be desired at all agricultural training centres. The quality assurance reports usually lack concrete measurable objectives and it also turns out that teachers are not very well informed of the content of these reports – if they are informed at all. Teachers do not really feel involved in improving quality assurance. Systematic quality assurance, in other words, is still not sufficiently embedded in the organisation of the agricultural training centres. The Inspectorate argues that there are three prerequisites for the capacity to pursue a quality assurance policy:

- 1 the will (among management and teaching staff);
- 2 availability of manpower (time/facilities);
- 3 expertise.



On the will aspect, it is noted that a broad base of support within the organisation is essential. Quality assurance is not a matter for individual teachers, indeed intervision and discussion in this area is extremely important.

The Council of Agricultural Training Centres observes that the policy-making capacity of agricultural training centres in the area of quality assurance is very variable, and is highly dependent on the quality of the management and governance of the educational institution. It does take the view that the quality assurance reports have given an enormous boost to cyclical thinking. The WEB gives institutions the scope to set up quality assurance systems as they think fit. On the other hand, there are stringent requirements for the quality assurance reports. Further requirements have also been set up for external reviews – such as those set up by the Council of Agricultural Training Centres. These involve a lot of work for the schools.

According to the Adult and Vocational Education Inspectorate, the comprehensive inspections reveal that the monitoring of the quality of practical training, and systematic quality assurance in particular (especially working with concrete measurement results and cyclical working), are still only moderately well developed in the community colleges. The situation in the field of quality assurance leaves no room for complacency, it argues: each community college has defined its mission, but there is usually an absence of concrete measurable objectives, and so relevant steering mechanisms are also absent.

Both the Adult and Vocational Education Council and the Adult and Vocational Education Inspectorate judge that it takes a period of 5 to 8 years to develop and implement a cyclical quality assurance system (1999). Since the majority of community colleges only started to develop policy in this area around 1996, their capacity to pursue their own policies is still not as good as it might be but, according to the Adult and Vocational Education Council, there has been some improvement compared with a number of years ago. The Adult and Vocational Education Council agrees with the Inspectorate that there is still room for improvement, but it is more positive in its judgement of the current situation: it sees a trend going in the right direction.

#### QUALITY ASSURANCE AS REPORTED BY THE CENTRES

Those directly involved also admit that quality assurance policy is less well developed than education policy.

Table 12.3 shows that satisfaction surveys of course participants are quite widely used on a regular basis, but the use of surveys of graduates and organisations that employ graduates is still rather patchy. As reported by the institutions themselves therefore, the link to demands from internal and external

Quality assurance policy	Average
a. Implementation of the plans for improvement is evaluated	2.82
b. Quality assurance reports are used to develop policy at community college/agricultural training centre level	3.25
c. Quality assurance reports are used to develop policy at course level	3.13
d. Satisfaction surveys are conducted among course participants on a regular basis	3.70
e. Satisfaction surveys are conducted among graduates on a regular basis	2.70
f. Satisfaction surveys are conducted among organisations that employ graduates on a regular basis	2.43
g. The study programme is evaluated periodically	3.14

Table 12.3: Situation regarding capacity to pursue quality assurance policy (1=negative; 5=positive)

actors mentioned in the definition of the capacity to pursue policy is still not being widely implemented. Nor is the cyclical process of evaluation and adjustment present to a large extent yet. This is evident, for instance, from the low score on the evaluation of the implementation of plans for improvement. Lower management gave the lowest scores and top management the highest on the extent to which the aspects of quality policy mentioned are being implemented in the centre.

#### **HUMAN RESOURCE POLICY AS REPORTED BY KEY FIGURES**

The *WEB* sees human resources policy as one of the strategic factors in the management of educational institutions. The aim of a human resources policy must be to improve the performance of employees and to offer protection to employees who do not meet the new requirements immediately. The education reforms resulting from the *WEB* usually form the background to human resources policy. The view that human resources policy must be fully integrated is a key issue.

In the collective agreement for the education sector of 1999-2000, integrated human resources policy is defined as a form of human resources policy, in which the personal development prospects of the staff are brought into line with the objectives of the educational institution, both in terms of the content of its educational provision and in organisational terms. With regard to the capacity of agricultural training centres to pursue their own human resources policies, the Agricultural Education Inspectorate noted that greater cooperation between teachers is required. Agricultural training centres have been entrusted with pursuing their own policies in this area, as a result of which, the capacity of the centres to do this is reasonably high. The policies of agricultural training centres on newly qualified teachers, in-service training and so on can be given as an example of this. Agricultural training centres have given far more attention to this than they have to quality assurance. The *WEB* also allows sufficient scope for intervision, appraisals and so on. It is reported that some agricultural training centres deal with these matters far better than others; so there are big differences between centres.

The Council of Agricultural Training Centres argues that conditions of service in education are outdated: since primary conditions of employment are laid down by the government, it has not been possible to implement a flexible and modern human resources policy. It is difficult to dismiss staff. It is also especially difficult to tackle people about their performance. Despite this, the situation is improving, albeit slowly. Poorly performing teachers are often 'parked' in lower management jobs (for example, as quality assurance officers). This begs the question as to whether this benefits the quality of policy-making.

The Adult and Vocational Education Inspectorate, on the basis of its comprehensive inspections, finds that there are reasonably consistent human resources policies in the community colleges. Insofar as it is possible to gain insight into human resources policy, it can be said to be consistent in quantitative terms. In qualitative, terms the situation is rather less rosy. However, the Inspectorate does not monitor or evaluate human resources policy.

#### **HUMAN RESOURCES POLICY AS REPORTED BY THE CENTRES**

A recent study of human resources policy in adult and vocational education institutions (Louwes et al. 2000) investigated a number of instruments of human resources policy that are directly related to the definition of human resources policy in the collective agreement for the adult and vocational education sector of 1999-2000. The study investigated how far these instruments are being systematically put into practice by the institutions. The study gathered information on the following ten instruments:

- training and in-service training;
- career planning policy;

- recruitment and selection;
- appraisal interviews;
- pay policy;
- policy on newly qualified teachers;
- long-service policy;
- age-oriented personnel policy;
- policy on part-time working; and
- task policy.

Many instruments of human resource policy are not yet being systematically implemented in the adult and vocational education sector, as shown by the responses of adult and vocational education managers to this question. To obtain more information on how many of these instruments of human resources policy are being systematically put into practice at vocational education level, the instruments were counted by centre. Figure 12.1 shows that not a single vocational education sector has systematically introduced all ten of the instruments listed above.

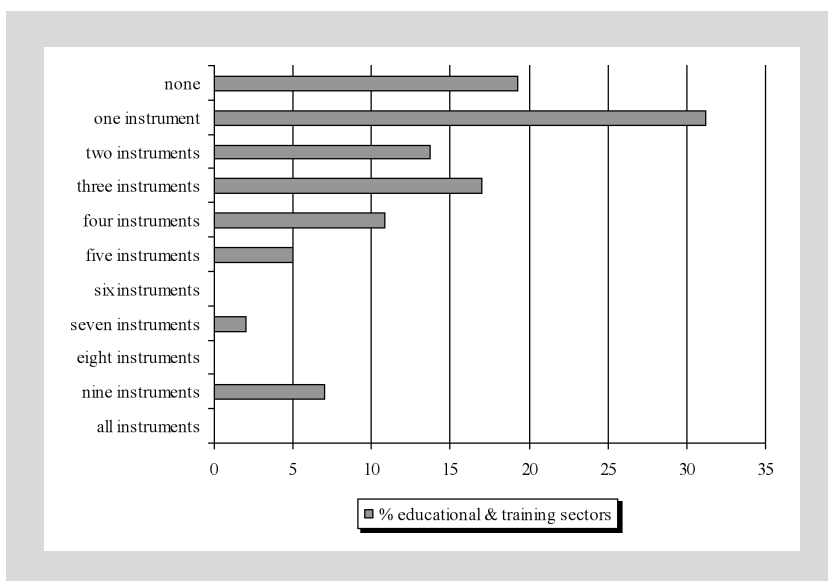


Figure 12.1: Number of instruments of human resources policy that are systematically being implemented, as reported by adult and vocational education managers ( $n=140$ ), expressed as percentages. Source: task policy data file, 1999

There is only one vocational education sector that uses nine of the ten instruments. The fact that 51% of the centres use none or only one element on a systematic basis, would seem to justify the conclusion that the development of human resources policy is not keeping up with expectations, given the obligation to develop these aspects contained in the agreed collective agreement for the adult and vocational education sector of 1999-2000. Of all the instruments on the list, appraisal interviews are generally used most systematically (42%), followed by specialisation and allocation of tasks (task policy), policy on recruitment and selection (both 38%), and training and in-service training policy (27%). However, there are very few vocational education sectors (2%) that systematically include career-

planning policy in their human resources policy. Age-oriented personnel policy (4%) and pay policy (7%) are also rarely found in the adult and vocational education sector.

The fact that these aspects of human resources policy are not being put into practice in a systematic way does not mean, however, that community colleges are ignoring them altogether. From the statements presented to members of the top management, sector directors and course coordinators, it appears that a number of aspects of human resources policy are still not highly applicable to the centres. On a five-point scale, the statements on human resources policy are described on average as only moderately applicable. See table 12.4.

Human resources policy	Av. n=86-90	EB	SD	CC
a. There is a training plan for all departments and layers	2.91	3.36	2.76	2.89
b. The centre has a mobility plan	3.02	3.31	2.89	3.05
c. When teachers do in-service training, the information they acquire is systematically disseminated among their colleagues	2.53	2.57	2.42	2.63
d. There is an in-service training plan based on key points in education policy	2.98	3.57	2.84	2.89

Table 12.4: Situation regarding capacity to pursue human resources policy (1=negative; 5=positive)

Once again, there is a clearly discernible difference between members of the executive boards and the other management layers. Despite the fact that members of top management are more positive than sector directors and course coordinators, the average score of top management on statements about human resources policy in their centres is low, namely 3.16 on a five-point scale. That is considerably lower than the averages on statements on education policy (3.69) and quality assurance policy (3.42). The sector directors and course coordinators give much lower average scores (2.67 and 2.79).

#### CAPACITY TO PURSUE POLICY AS REPORTED BY THE CENTRES

The survey asked representatives from the various layers of management how far changes had occurred in relation to policy-making capacity in the centres as a result of the introduction of the WEB. The survey found that the main developments in the centres, compared with the situation prior to the WEB, concerned the development of quality assurance policy. Communication within centres is still found to be rather on the low side. 'Relations with organisations that employ graduates', although on the positive side of the scale, still gets a low score, compared with the other quality assurance items. Changes in the educational domain as a result of the WEB come in second place. Evidently, the WEB has had less control over developments in this domain than in the quality assurance domain. It is conspicuous that in the area of education policy, the item that gets the lowest score is 'number of students that complete the course and obtain a qualification'. The 'quality of examinations' item also shows a relatively low score.

Developments and/or changes in the human resources field are the least likely to be attributed to the introduction of the WEB. One noticeable development is that the staff workload has not been reduced very much at all as a consequence of the WEB, nor has the level of absenteeism due to illness.

Capacity to Pursue policy	Average total score	Alpha	% explained variance
Quality assurance	3.09	.92	29.7
Human resources policy	3.28	.81	45.7
Education policy	2.21	.78	59.1 (total explained variance)

Table 12.5: Changes since the introduction of the WEB, scale scores, Alpha coefficient and % explained variance (1=negative; 5=positive)

The largest share of the variance in changes in policy-making capacity is explained by quality assurance (29.7%); 16% is added by education policy and another 14.8% by human resources policy (see table 12.5).

Members of the executive boards were interviewed and asked what any changes and/or developments since the introduction of the WEB could be attributed to. Most of the institutions take the view that the statutory provisions acted as a catalyst for internal developments in education and human resources policy, but especially in quality assurance policy. They also indicated that changes, especially in the educational domain, are the result of a combination of the new legislation and regulations and the implicit desire to improve by the institutions themselves (independently of the WEB). The WEB has provided a framework for this and has had a stimulating effect. Furthermore, closely related policy developments, such as the introduction of the qualification structure, block-grant funding and scale expansion processes, are also factors that have influenced changes in this field. With regard to developments relating to scale expansion, they note that centres have been forced to redesign their organisations. The new organisational structure and the in-service training for management that is part of it also formed an important incentive to change. They also concluded that the expansion of scale had had a greater impact on changes within the centres than the WEB, in general terms, and specifically with regard to education policy.

## 12.4 Conclusions and discussion

The situation in relation to *education policy capacity* is not very positive, according to those involved in the centres. In general terms, there are major differences between institutions as far as their capacity to pursue their own policies is concerned. These differences are associated with the quality of management and how much use they make of the scope to pursue their own policies. The more autonomous action the actors take, the greater their capacity to pursue policy.

The Inspectorate considers the level of customised course programmes and flexibility in these programmes to be low. The open learning centre is being operated more as a means of economising than as an instrument of education policy. Institutions also vary in the extent to which they have regular contact with business and industry. The development of customised courses, increased flexibility in course programmes and open learning are still very underdeveloped.

An increase has been observed in the endorsement of the main objectives that are important for the policy-making capacity of institutions (such as improved management and development of quality assurance). However, endorsement of the importance of 'promoting management staff development' is lagging behind. This is quite serious, given the problems discussed below, which could partly be avoided by strengthening management.

One of these problems is that there is still often insufficient clarity in the centres about their mission and goals at a practical level. This is detrimental to policy-making capacity, which assumes clarity and commitment to the mission and goals as basic conditions. This omission may be connected with the finding that the cyclical strategic pursuit of policy does exist in the centres, but that it is still in its infancy. The structure, procedures and methods of working of the organisations are more familiar to managers than teachers. Team-forming is generally good (except in the engineering and technology sector).

*Quality assurance* is being introduced in bite-size pieces. Support for quality assurance in the organisations is still limited. Self-corrective capacity in relation to quality assurance still leaves something to be desired.

Many of the instruments of *human resources policy* are not applied systematically in the adult and vocational education sector. Half of the centres appear to pursue hardly any systematic human resources policy. The task policy component occurs the most, but still only in 50% of the centres. Another instrument of human resources policy, namely appraisal interviews, is systematically carried out in about 40% of the institutions. In-service training as a component of human resources policy is found in 28% of the centres surveyed. More than half of the colleges have no long-term in-service training plan. Staff development is still insufficiently geared to improving the learning capacity of the organisation. Strategic human resources policy is still at an early stage at many centres.

In general, therefore, it is possible to say that the capacity to pursue policy is present, but not over the full width and sometimes at a very early stage. It also seems that with regard to certain matters (mission, goals, organisation, management, etc.), practitioners have a less clear view or are less positive than those at management level. This is also an indication of communication problems in the centres.

#### **POSSIBLE CAUSES**

It is not possible to give a simple answer as to the causes of this immature development. The research study examined in this paper does provide some clues. One of the problems encountered is the strongly *hierarchical structure* in the organisations. This was chosen in many cases because the community colleges were mergers of completely different types of organisations. In order to forge a single entity from the separate parts, a structure with strong central management was chosen in the first instance. This is often at odds with open and two-way communication and with practitioners being highly involved in decision-making. That could explain, for instance, the differences in perception and appreciation between the management level and the practitioner level. The fact that managers are more positive and more satisfied with consultative structures underlines this conclusion. The fact that the engineering and technology sector clearly scores worse on a number of aspects of policy-making capacity than other sectors is also reason to look for other explanations. It may be that the diverse experiences and the different demands put on senior secondary vocational colleges and schools for adult education in the past are to blame for their lagging behind in the capacity to pursue policy. However, this explanation is very hypothetical.

The failure to keep up on quality assurance is explained by the Inspectorate mainly by the fact that management had to deal with the mere consequences of the mergers first and start to implement policies, before it could put a complicated process such as integrated quality assurance into operation. The centres had to do a great deal simultaneously. The teaching staff is enthusiastic, and also works very hard. There are also problems associated with time investments in substantial accountability requirements in different areas coming from a large number of external bodies or institutions.

Other, mainly *internal causes* of the tardy development of policy-making capacity are sought in:

- the quality of management and governance of the centres;
- management's interpretation of its role, in which a combination of open system model (outward-looking and innovative) and rational goal model (formulation of concrete goals and attempting to reach them) benefit the capacity to pursue policy. A narrow focus on organisational and material matters, however, hampers the institution's capacity to pursue policy, especially education policy;
- the organisation of the centres (a structure with two layers of management seems to work better than three or even four layers of management);
- the influence of different people in the organisation on decision-making is associated with greater policy-making capacity, but it was not possible to find out what is cause and what is effect;
- market-orientation. The more people focus on the external environment, the greater the institution's capacity to pursue its own policies;
- the presence of concrete measurable goals has a highly stimulating effect;
- the absence of a performance-driven culture hampers policy development, especially quality assurance policy.

One of the problems experienced by the centres that comes into the category of *external factors* is in their dealings with the national bodies that supervise the quality of training places in firms, while the school is responsible for the teaching, as this can create a conflict of responsibilities. Key figures report that the lead bodies (national organisations representing the schools and the labour market organisations of a vocational sector) also obstruct the policy-making capacity of the educational institutions in the examining boards. The fact that the criteria operated by the examinations offices and the criteria of the Inspectorate have not been streamlined is experienced as an obstacle to the pursuit by schools of their own policies. The discrepancy between the requirements of the quality assurance report and the comprehensive inspection is viewed as serious and unnecessary. Some key figures feel that the Inspectorate creates too many external rules, to which the institutions are too quick to conform. In particular, the training and examination regulations are unreadable (and so they overshoot the mark) and merely serve as an instrument of control for the Inspectorate.

A number of these possible causes constitute points for improvement, which have already been partly incorporated into new policy plans.

## References

- Adult and Vocational Education Council (1999). *Van beleid naar cultuur: analyse kwaliteitszorgverslagen 1999*. De Bilt.
- Esch, W. van & Tiebosch, C. (1998). Professionalisering van de schoolorganisatie in de bve-sector: beginmeting. Nijmegen: ITS.
- Esch, W. van & Vrieze, G. (1996). *Voortgang vernieuwingsproces BVE 1993/1994*. Nijmegen: ITS.
- Esch, W. van & Vrieze, G. (1997). *Voortgang vernieuwingsproces BVE 1994/1995*. Nijmegen: ITS.
- Esch, W. van, Vrieze, G. & Laemers, M. (1997). *Vernieuwingsmonitor BVE 1995/1996, Derde meting*. Nijmegen: ITS.
- Esch, W. van, Vrieze, G. & Laemers, M. (1999). *Vernieuwingsmonitor BVE 1996/1997. Vierde meting*. Nijmegen: ITS.
- Karstanje, P., Esch, W. van, Pauwels, T., Ingen, D. van, Berdowski, Z., Hoeben, J., Vemeulen, M., Vink, R., Wiekeraad, M. & Venne, L. van de (2001). *Zelfsturend stelsel, autonomie instellingen, kwaliteitszorg. Themarapport 6*. Zoetermeer: Stuurgroep Evaluatie WEB.
- Louwes, W, Senders, H., Vermeulen, M. & Vink, R. (2000). *De praktijk van het taakbeleid: een empirisch onderzoek naar invoering en ervaringen met taakbeleid in het onderwijs*. Tilburg: IVA.
- Senge, P.M. (1990). *The fifth discipline: The art & practice of the learning organization*. New York: Doubleday.
- Senge, P.M. (2000). *A fifth discipline: Schools that learn*. London: Nicholas Brealey.
- Simons, P.R.J. (1997). De school als lerende organisatie. In: Bergen, Th., Knoers, A. & Slegers, P. *Perspectieven op de school in dynamische ontwikkeling*, p.37-57. Alphen aan den Rijn: Samsom HD Tjeenk Willink.
- Swieringa, J. & Wierdsma, A.F.M. (1990). *Op weg naar een lerende organisatie*. Groningen: Wolters Noordhoff.



# 13 The Funding of VET and Adult Education<sup>36</sup>

DICK VAN INGEN

*This evaluation study has the nature of a qualitative examination of the new funding systems. The criteria used for judging the systems were found in the new Act (WEB), and derived from the stated goals and considerations of the makers of the Act and the funding systems based upon it, and from principles of good governance. The functionality of the systems during the transitional period has also been examined.*

*Judgment has to be deferred on the extent to which the Act has led to a higher quality of education and training, lower dropout rates among students, and higher efficiency in running schools, particularly in view of the enormous increase in the institutional scale of operation that was intentionally produced when the WEB was introduced. No empirical evidence of any of these key issues existed at the time of the review. Section 13.2 of this chapter contains a description of old and recently introduced funding systems that have replaced the old ones. An analysis of the new funding systems is presented in section 13.3. Questions and answers are given in section 13.4, along with the conclusions on the analysis and policy recommendations.*

## 13.1 Introduction

Funding is essential in providing VET and adult education of good quality. The systems of funding were changed at the time of the introduction of the WEB – the new act regulating VET and adult education. At the time of this evaluation, the system of funding for VET had only just become fully operational and that for adult education had not yet taken effect. Transitional systems were in effect, thus the focus of the evaluation of funding is mostly ex ante. This evaluation study has the nature of a qualitative examination of the new funding systems. The criteria used for judging the systems were found in the new Act (WEB), and derived from the stated goals and considerations of the makers of the Act and the funding systems based upon it, and from principles of good governance. The functionality of the systems during the transitional period has also been examined.

The ex ante focus of the study poses important limitations on judging the effectiveness of the education system under the new Act. Judgment has to be deferred on the extent to which the Act has led to a higher quality of education and training, lower dropout rates among students, and higher

<sup>36</sup> The evaluation study into funding was carried out by Dick van Ingen, Zosja Berdowski and Judith Hoeben, who were employed at the time by the IOO (Institute for Research on Public Expenditure), Zoetermeer, the Netherlands.

efficiency in running schools, particularly in view of the enormous increase in the institutional scale of operation that was intentionally produced when the *WEB* was introduced. No empirical evidence of any of these key issues existed at the time of the review. The funding regulations based upon the Act, it should be added, contain a final clause that states that an evaluation of the system will take place in 2004. As we will see, the funding system of VET that is now new is destined to move into another phase; so are the evaluations.

The Steering Committee (see chapter 2) which had the task of coordinating the review formulated ten questions to be answered on the funding of Adult and Vocational Education. These questions are wide-ranging and diverse. We have arranged them under the following headings<sup>37</sup>:

- sources of funding;
- system of funding;
- introduction phenomena;
- redistribution effects of funding system changes;
- miscellaneous.

Section 13.2 of this chapter contains a description of old and recently introduced funding systems that have replaced the old ones. An analysis of the new funding systems is presented in section 13.3. Questions and answers are given in section 13.4, along with the conclusions on the analysis and policy recommendations.

The analysis was conducted on the basis of information gathered by documentary research and interviews with managers of VET colleges.

## 13.2 Funding arrangements

The description in this section addresses the sources of funding (subsection 13.2.1) and the systems of funding (subsection 13.2.2).

### 13.2.1 Sources of funding

VET, under the aegis of the *WEB*, is funded by state contributions from the Ministry of Education and, to a lesser extent, by tuition fees. Full-time VET students in the school-based pathway (*BOL*) are eligible for financial assistance in coping with their cost of living, while students in the apprenticeship system and part-time *BOL* students are not. The last two categories of students are supposed to earn their living by working at a job. Low-income students are eligible for financial assistance in dealing with tuition costs and the costs of personal instruction materials (books, etc.).

Firms are given deductions in tax and social security contributions for each worker who receives training in the work-based pathway (*BBL*). VET colleges may increase their budget by providing training

<sup>37</sup> The questions were treated pretty much as given. Few liberties have been taken with them, apart from an attempt to impose a frame of analysis.

on the basis of contracts with employers, and by other contract activities. Contract VET involves knowledge and skills outside the domain of the official qualification structure. The VET institutions also receive money from so-called reintegration organisations that act under the auspices of the Ministry of Social Affairs and Employment, for courses that are aimed at getting the long-term unemployed and the partially disabled back to employment in the job market.

Adult education is funded mainly by local authorities. The local authorities receive block grants from the state, i.e. the Ministry of Education, for providing adult education and initial education for new immigrants ('newcomers'). The courses for new immigrants involve learning the Dutch language and about the Dutch way of life. The local authorities are bound by law to spend the block grants for adult education at the community colleges that operate under the aegis of the WEB. This obligation amounts to a closed-shop arrangement.

### 13.2.2 Systems of funding

New funding arrangements have been introduced into vocational education and training (subsection 13.2.2.1), adult education (13.2.2.2) and initial education of new immigrants (13.2.2.3).

#### 13.2.2.1 Vocational education and training (VET)

A major overhaul of VET funding occurred in the years 1993-1994. At that time, lump sum funding was introduced, instead of funding by reimbursement, which had previously been in effect.

This lump sum funding covered operating costs only; for building costs, the old system remained in place. The lump sum funding formulas were mainly driven by the numbers of enrolled students in a great many clusters of VET. The lump sum budget for operating costs consisted of two building blocks: one for the costs of personnel and another for the costs of equipment and materials. The costs of personnel were determined by standardised student/staff ratios. The levels of funding were more or less identical to those before 1993/1994. The switch to formula funding brought with it a wave of school mergers, which was a prelude to a further increase in institutional scale that came with the introduction of the WEB and the formation of the community colleges.

With a few exceptions, funding in the transitional period 1998-2000 had its basis in the funding of VET in 1997, with adjustments to the change in enrolment, without refinements for changes in the composition of attendance in the various fields and pathways of VET. In this transitional period, some special provisions applied:

- the budget of sociocultural training, which did not lead to a labour market qualification and was formally abolished when the WEB was introduced, was fixed at the level of 1997;
- funding of a type of training called orientation and linking (O+S) was discontinued at the time of the earlier introduction of VET level I (assistant level) in 1995;
- the old system of funding agricultural education has remained in place without any changes.

The VET 2000 funding system for each college consists of one lump sum budget for operating costs and another for housing costs. The lump sum budget for operating costs includes the funding of so-called

preparatory and support activities (VOA) for students with low preliminary educational attainment and students at risk. The VOA budget is calculated in proportion to the number of students at the two lowest levels of VET (for which there is no minimum entry level of preliminary educational attainment). VET colleges receive 40 per cent more VOA budget for a student at the first level than for one at the second.

The total amount of VOA funds available at national level is determined beforehand. It is deducted from the total amount available for the operating costs before determining the level of funding for each of the VET colleges. Of the total remaining budget for operating costs, 80 per cent is determined in proportion to the weighted number of enrolled students, and 20 per cent in proportion to the weighted number of diplomas in the year preceding the date for counting the number of students.

The number of enrolled students is counted on October 1 of the year before the year of budget determination, which, in turn, precedes the year of actual funding.

The weighting of the numbers of students for budgeting purposes involves:

- eight factors for various fields of training, ranging from 1.0 for training for clerical tasks, up to 1.7 for training in some technical fields;
- three part-time factors (0.35 for part-time training in the school-based pathway and most types of training in the work-based pathway, 0.40 for agricultural training in the work-based pathway, and 0.80 for in-service training in health care in the school-based pathway).

The numbers of diplomas are weighted as follows:

- 1 for level 1;
- 2 for level 2;
- 4 for levels 3 and 4.

VET colleges that were confronted with large negative redistribution effects were compensated in 2000, the first year of the new system of funding VET. This was a one-off compensation. Its size was set equal to the present value of current and future negative redistribution effects, to the extent that these negative effects exceed eight per cent annually (Uitvoeringsbesluit WEB, 1999).

#### 13.2.2.2 *Adult education*

The funding of adult education is in the second stage of a transition process, which will end in 2004. The budget for adult education will then be allocated as block grants to the local authorities according to the following three indicators of need:

- number of adult residents (aged 18 or older): 15 per cent of the total budget (at national level);
- number of adult residents with low educational attainment: 45 per cent of the total budget;
- number of adult residents of foreign origin: 40 per cent of the total budget.

The introduction of the WEB brought with it a new qualification structure, which distinguished six levels of adult education qualification. This structure brings order to the former mishmash of adult education courses. The first three levels, 1 to 3, are relatively low levels of general education, and were formerly called basic adult education. The adult education of levels 4 to 6, was called VAVO, and is the adult equivalent of general secondary education for the young.

This new way of funding replaces the old systems for various types of adult education, which were based on three different legal statutes. Previously, VAVO was funded directly by the state, i.e. the Ministry of Education, at first on the basis of reimbursement, later on a lump sum basis. Basic adult education had always been primarily funded by local authorities and regional bodies. These entities received block grants for this basic adult education from the Ministry of Education on the basis of the same set of indicators as in the new system, albeit in the ratio of 20: 20: 60, instead of the 15:45:40 of the new system for the whole of adult education (apart from initial education for adult immigrants). The proportions of residents with low educational attainment and of foreign origin were taken from specifications used in the process of funding regular basic education. This method has been abandoned and replaced by direct measurements by the CBS (Central Bureau of Statistics), which are deemed less questionable than the specifications previously used. Schools that provided VAVO, as well local authorities financing adult education, were additionally funded to meet educational needs stemming from immigration.

In the first stage of the transition process, the flow of money in funding VAVO was shifted from being direct from state to schools to indirect from state via local authorities. The funding of VAVO had been put on the same basis as the funding of basic education, according to the same indicators of need. The change to formula funding according to these indicators would have resulted in very large redistribution effects amongst local authorities. To mitigate these effects, the distribution of funding levels amongst regions (WGR-gebieden [Intermunicipal Cooperation Areas]) has remained intact. Within regions, the VAVO funds were allocated according to the aforementioned indicators, in the proportions 33% (adult residents), 32% (low educational attainment) and 35% (ethnicity). The funding of basic adult education remained, by and large, the same as before. Insofar as the additional money mentioned earlier went directly to VAVO-provided schools, it was redirected to the local authorities as well.

In the second stage of the transition process, which will take five years from 2000 to 2004, the new system is being introduced gradually. In each year, 20 per cent of the redistribution resulting from the new system takes effect (Cfi, 1999).

### 13.2.2.3 Education of new immigrants

The local authorities' involvement with adult education includes responsibility for initial education of new immigrants. As of 1999, the education of new immigrants is provided under a new act called *WIN* (*Wet Inburgering Nieuwkomers* [Settlement of Newcomers Act] (1998)). When the *WIN* was introduced, the definition of newcomer was restricted to persons originating from non-western countries. Before 1999, the national budget for the education of newcomers was allocated to the local authorities, according to the number of new residents of foreign origin.

A new system of funding under the aegis of the *WIN* was gradually introduced in 1999 and 2000. Funding in this new system takes place according to the following two indicators:

- the number of new immigrants enrolled in education courses for newcomers;
- the number of new immigrants who successfully complete a course for newcomers and attain a certificate.

The national budget for the education of newcomers is allocated in the proportions 30 per cent (new immigrants) and 70 per cent (certificates).

### 13.3 Analysis of functionality

The functionality of the systems has been analysed with reference to the following conceptual framework:

*Access and quality*, with special attention to:

- equal opportunities;
- flexibility and made-to-measure provision;
- reduction in dropout rates.

*Efficient pathways*, with special attention to:

- labour market demand;
- connection between adult education and VET for adults.

*Good governance requirements*, consisting of:

- system simplicity and transparency;
- scope for policy-making by VET colleges;
- scope for financial control of total expenditure by the state, i.e. the Ministry of Education.

The analysis focuses on the new systems and the transitional systems from old to new.

#### 13.3.1 Funding of VET

The initial ambition in revising the system was performance-driven lump sum funding of VET. The funding formula would have to reflect the educational value-added by VET. The section of the WEB that deals with funding testifies to this ambition: according to this section, the level of funding of a VET college would depend on the number of entrants or the number of presented diplomas (Ministry of Education, 1996). The weights given to these indicators could vary by field of training and by student category. One would particularly differentiate between categories of students with different levels of preliminary educational qualifications.

It turned out in devising the new system that this ambition could not be realised without imposing a heavy annual workload for VET colleges and the funding Ministry. Realising the ambition has been put on hold until a so-called education card for individuals receiving state-funded education has been introduced. This card will contain a unique identifying number, as well as the education and training history of the cardholder, including student grants and loans received.

The parliamentary decision to introduce such a card has been taken; implementation of the decision is in progress.

Funding in proportion to the number of presented diplomas can have unintended effects if differences in preliminary educational attainment are not taken into account. For this reason, the emphasis on diplomas in the funding system has been kept relatively light (20 per cent). Another reason for not giving a heavy weighting to diplomas as an indicator in the funding system is the danger of diploma inflation that could result from lowering educational standards<sup>38</sup>.

<sup>38</sup> There are no national exams in VET.

## ACCESS

Formal entry qualifications, in terms of certificates of educational attainment, are not required for access to VET for levels 1 and 2 of the qualification structure. The VOA part of the lump sum funding accommodates the additional educational effort to meet the special needs of students without entry qualifications. Before the introduction of the WEB, various types of VET catered for students with insufficient qualifications: the so-called short VET courses (KMBO), orientation and linking (O+S) and sociocultural training. It can be argued that access opportunities have neither deteriorated nor improved, but that the opportunities for obtaining certificates of value in the labour market have improved.

## FLEXIBILITY AND MADE-TO-MEASURE PROVISION

We distinguish: a) programme flexibility; b) organisational flexibility; and c) pedagogic flexibility.

- What is important for programme flexibility is that there are several moments of opportunity each year for starting on a course and for finishing it by obtaining a certificate. In the new system of funding, there is only one date – October the first – on which the number of students is counted. This is done to keep administrative costs within reasonable limits, and to prevent double counting of the same student – first as a student in the school-based pathway and later in the year as a student in the work-based pathway. It is also an incentive for programming courses in such a way as to have as many students as possible at the date of counting. This incentive does not enhance programme flexibility or made-to-measure provision. It should be added that this disadvantage can be made to disappear once the education card has been introduced.
- Actors within schools often look at the structure of funding to substantiate claims on parts of the lump sum, which they consider their due. The more detailed the structure is, the stronger are the forces which resist organisational flexibility.
- In the lump sum structure, no fewer than eight ‘funding prices’ apply to training in different fields; these prices are not pathway-independent. These system attributes are detrimental to organisational flexibility, although the system also has attributes which are helpful in this respect. Costs of personnel, on the one hand, and costs of equipment and materials, on the other, are no longer visible as separate building blocks of the lump sum budget. This enhances organisational flexibility. So does the reduction in the number of specific grants for an assortment of policy purposes in the so-called Policy Agenda (*Beleidsagenda Bve*). Each of these specific grants had its own set of assignment rules. The resources for realising the Policy Agenda have been added to the lump sum. This not only enhances organisational flexibility, it also reduces administrative costs.
- We have not found any elements in the funding system which add to or detract from pedagogic flexibility.

## EFFICIENT PATHWAYS

A learning pathway is deemed efficient if the maximum level of feasible educational attainment is reached as quickly as possible. The number of diplomas as a funding indicator is an incentive for achieving efficient pathways. In addition, the size of the community colleges all but ensures the presence of training at all levels in a certain field, and the possibility of ‘downstreaming’ to acquire a diploma at a lower level once the level initially aimed at proves too high. However, the rationale for rewarding VET colleges for presenting diplomas at level 1 is questionable, because level 1 falls below the minimum qualification standard for entry to the labour market.

Of course, training and careers counselling can also contribute to choosing efficient pathways. The lump sum contains resources for this.

### REQUIREMENTS OF GOOD GOVERNANCE

Keeping things simple has been an important guideline in devising the new system of funding (Rozema 1999b). Simplicity and transparency have been enhanced, particularly by reducing the number of dates per year on which students in the work-based pathway are counted, and by including in the lump sum budget the resources for realising the goals in the *Bve Policy Agenda*.

This adding of Policy Agenda resources is also a positive contribution to the policy-making scope of VET colleges. As we will see, this scope exists to a much lesser degree in adult education, and in types of training that make the connection between adult education and VET.

As lump sum funding was already in place before the introduction of the *WEB*, the scope for financial control of total expenditure at national level has not changed.

### 13.3.2 Funding of Adult education

#### ACCESS

In the evaluation years, access to adult education for new immigrants was seriously hampered by a lack of supply; no-show of would-be students was also a serious problem. In 1997, only 5 per cent of new immigrants obtained the minimum qualification (level 3 of the KSE, [Qualification Structure for Adult Education]), which is needed for labour market access or further education and training. In 1998, this figure was less than 10 per cent (Verwey et al., 1999). However, the priorities of most local authorities with regard to adult education are firmly with Dutch as a second language education and its follow-up education. This emphasis on low-level education for new immigrants has been at the expense of *VAVO* (Sociaal en Cultureel Planbureau, 1999).

*VAVO* offers an alternative path to obtain qualifications after previous dropout from the regular secondary education system. Historically, the provision of *VAVO* has been unequally distributed amongst regions and this will not change in the short run, because of the current priorities of local authorities in adult education provision. As a consequence, the opportunities for access to *VAVO* have an unequal geographic distribution.

Another access problem is the lack of individual choice. The options of the individual are restricted to the regional community college with which his or her local authority has entered into a contract to provide adult education. Funding outside these arrangements is hard to obtain.

#### EFFICIENT PATHWAYS

The state system of funding adult education has no incentives for advancing efficient pathways; it is up to the local authorities to do this. The state system of funding education for new adult immigrants does have an incentive for efficient pathways: the more diplomas that are presented in relation to the number of students, the higher is the level of funding<sup>39</sup>.

<sup>39</sup> In practice, the system has led to misappropriation of funds, because of unreliable statements by local authorities. (This was put right afterwards.) There is also a dubious effect on the quality of the courses provided.



Neither does the system of funding adult education have incentives for advancing connectivity between adult education and VET. The VET colleges are bound by law to advance this connection. In practice, VET colleges need the support of the local authorities in establishing these connections. At the time of this evaluation study, this support was weak, because of the bureaucratic compartmentalisation of local authority services. Typically, the Education Department and the Social Affairs and Employment Department of the local authority were out of touch with each other's doings.

#### REQUIREMENTS OF GOOD GOVERNANCE

The new systems of funding adult education under the *WEB* and initial education for new immigrants (under the *WIN*) are simple and transparent. At the present time, local authority budgets for adult education are not easily calculated, because of the after-effects of old systems in the transitional period.

The community colleges have little scope for their own policy-making in adult education issues. They depend to a large degree on the actions of the local authorities with respect to adult education. The weakest party in the triangular relationship between local authority, school and student, however, is the adult education student, who has little choice but to take it or leave it.

The scope for financial control of total expenditure by the state, i.e. the Ministry of Education, has not changed.

### 13.4 Conclusions and policy recommendations

The Steering Committee posed ten questions about the financing of VET and adult education. This section deals with these questions, and gives answers, which include conclusions and policy recommendations.

**Q:** *What is the role of the other sources of income of publicly funded VET institutions?*

**A:** Table 13.1 gives the shares of the various actors in the funding of VET and adult education lumped together.

Central government	Local authorities	Students	Contract activities	Other benefits
75.3%	9.3%	2.6%	4.2%	8.6%

*Table 13.1: Distribution of income of VET institutions by source of income, 1997*

Source: IOO on the basis of annual financial reports of community colleges, specialist trade schools and lead bodies, not including agricultural education

**Q:** *Do the systems of funding VET and adult education, which will come into effect from 2000 onwards, sufficiently meet the conditions for providing good education and training?*

**A:** In answering this broadly formulated key question, we address two aspects: the level of funding and the manner of funding.

The financial implications of the introduction of the WEB have been investigated by Berdowski and Van Ingen (1998). The study found that the work-load for adult and vocational education colleges had increased, because of the introduction of the WEB. This increase was partly structural, and partly of a temporary nature.

The 1998 Government Agreement of the coalition in power in the period 1998-2002 allocated additional funding to: a) accommodate this increased workload; b) counteract dropout by students; and c) correct a system flaw with respect to the cost of equipment and materials in the introduction of lump sum funding in 1993-1994.

### **VET**

The method of funding has been examined in section 13.3, 'Analysis of functionality'.

This analysis leads to the conclusion that the funding systems contain many good and some bad things, but that it is premature to pass judgment. One should consider the following recommendations for change of the system at short notice:

- funding on the basis of diplomas at level I of the VET qualification structure should be abolished, while increasing the weighting in the funding formula of the number of enrolled students at level I;
- advantages and disadvantages of the use of the additional indicators 'ethnicity' and 'disability' should be looked into.

Once the education card has been introduced, the number of enrolled students should not be used indiscriminately. Preliminary educational attainment should be taken into account, while standardising the duration of funding in individual funding accounts.

For the purpose of organisational flexibility, one should continue to strive for funding that is independent of the VET pathway.

### **ADULT EDUCATION**

The system of funding adult education lacks incentives for efficient provision and connectivity between adult education and VET for adults. Voucher funding by the local authorities should be considered.

**Q:** *To what extent do those involved in VET expect the intended effects of performance-based funding to be realised?*

**A:** The community colleges expect positive effects, i.e. more diplomas and fewer dropouts, from the new system of funding VET. They fear that a greater emphasis on diplomas than incorporated in the new system will lead to inappropriate selection at entry (Rozema, 1999a).

- Q:** *To what extent does unfair competition exist between contract education by publicly funded VET colleges, on the one hand, and privately funded VET providers, on the other?*
- A:** Problems that stem from the lack of a level playing field for publicly and privately funded providers are pertinent to all lump sum sectors, not just the sector of VET and adult education. Little empirical research has been done in this area. Van der Aa (1995) has compared prices of publicly and privately funded VET providers. No clear pattern of differences has been found to exist.
- Q:** *What are the effects of the introduction of demand-induced funding of the innovation and practice centres (IPCs) in agricultural VET on the position of the IPCs?*
- A:** The three IPCs act as outplaced service centres for the AOCs (agricultural training centres). It is good business economics for service centres to have a budget that is determined by demand for the services. Experts in the field expect the IPCs to lose about a quarter of their business as a result of the introduction of demand-driven funding. This should not prove fatal as the IPCs are basically in sound condition. There is only a danger of the IPCs declining if the going gets tough for the AOCs.
- Q:** *What is the effect of the compulsory spending of state grants by local authorities on adult education and education for new immigrants by community colleges? What will be the consequences of releasing the local authorities from this obligation, by allowing competition from providers other than the community colleges (for instance, for the orientation of the colleges to their surroundings)?*
- A:** The community colleges consulted expect few or no consequences of the abolition of the compulsory spending arrangement. Broad-based and high quality provision may ward off attempts by outsiders to conquer a substantial part of the market. The colleges consider themselves firmly entrenched in the local power structures.
- Q:** *What are the redistribution effects of the introduction of the new funding system of VET in 2000?*
- A:** Redistribution effects have been calculated by the Ministry of Education. Overall, these effects are of moderate size. In this evaluation study, we have examined which attributes of VET colleges lead to relatively large redistribution effects. Six of these attributes have been looked into, and of these, two contributed significantly to the redistribution effects. The redistribution effects were more negative for VET colleges which in the past had provided a lot of sociocultural training, and for VET colleges with a large proportion of students in technical fields.

**Q:** *What are the redistribution effects of the allocation criteria in the block-grant funding of adult education (particularly 'ethnic background' as an indicator of educational deprivation)? Will criteria pertaining to the targeted population other than the three in the new funding system (number of adult residents, level of educational attainment and ethnicity) lead to more moderate redistribution effects?*

**A:** Redistribution effects among local authorities have been re-examined following an earlier attempt along similar lines by Sips and Veldhoen (1997). The repeat study has been conducted with the same indicators of need as in the new funding system, and data that are more recent and accurate than in the previous study<sup>40</sup>.

It had been found that a larger weight for ethnicity and no weight at all for the number of adult residents results in smaller overall redistribution effects. However, the improvement is slight, and entails a larger number of local authorities with large negative redistribution effects.

This leads to the conclusion that there is no good reason to change the weights of the three indicators in the funding formula.

**Q:** *What about the implementation processes for introducing the new systems of funding VET and adult education: Have introductory problems occurred?*

**A:** Two problems have arisen in implementing the new system of funding VET:

- There have been suspicions that prior – insider – knowledge of key elements of the new system led to artificial boosting of the number of diplomas presented in 1998, for the purpose of obtaining more funding in the first year (2000) of the newly introduced system. An investigation by accountants of the Ministry of Education has not, in the first instance, produced evidence to confirm these suspicions.
- In counting the number of enrolled students in 1997 for the purpose of funding VET in 1999, there has been a failure to distinguish between part-time and full-time students. This has made the job of empirical evaluation (in another context) of the efficiency and the cost-effectiveness of VET provision in the transitional period more difficult to carry out.

It has been found during the implementation of the new system of funding adult education that it has become harder to find funding for adult education students living in municipalities that have no contract with the community college which the students attend (Van Rest, 1997). A solution to this problem is suggested in the answer to the next question.

**Q:** *Have ideas for improving the Act come to the fore in the area of funding VET or the relative positions of funded and non-funded institutions that provide VET or adult education?*

**A:** Vouchers on the basis of individual learning accounts are economically viable, but for high transaction costs in the case of great heterogeneity of the eligible population. Steps towards demand-induced funding should be taken first in the area of the education and training of adults.

<sup>40</sup> The consequences of entering other indicators than the three leading ones in the funding formula have not been examined, because of budget limitations in the present evaluation study.

## References

- Aa, R. van der (1995). *Opleidingen in de markt. Concurrentie tussen instellingen voor educatie, scholing en opleiding*. Rotterdam: RISBO.
- Berdowski, Z., & Ingen, D.C. van (1998). *Kostenimplicaties van de WEB: Gevolgen voor bekostigde instellingen*. 's-Gravenhage: IOO.
- Centrale Financiën Instellingen Cfi (1999). *Rijksbijdrage Educatie 2000 en vaststelling van bedragen voor de jaren 2000 tot en met 2003 op grond van de artikelen 6.2.3 en 6.2.4 van het UWEB*. Zoetermeer: Ministerie van OCenW.
- Ministerie van Onderwijs, Cultuur en Wetenschappen (1996). *Wet Educatie en Beroepsonderwijs. De Wettekst*. Zoetermeer.
- Rest, C. van (1997). Nieuwe aansturing educatie is weeffout in de WEB. *Bve Radius*, 8.
- Rozema, M. (1999a). *Bekostiging als beleidsinstrument: sturen op prestaties?* Nijmegen.
- Rozema, M. (1999b). Vijf jaar denken over eenvoud. *Bve Radius*, 2.
- Sips, C., en R. Veldhoen (1997). *Verkenning verdeelsleutel Educatiebudget*. 's-Gravenhage: IOO.
- Sociaal en Cultureel Planbureau (1999). *Rapportage Minderheden*. 's-Gravenhage.
- Uitvoeringsbesluit WEB, *Staatsblad 1999*, 368.
- Verweij, A.O., Latuheru, E.J., Rodenburg, A.M. & Weijers, Y.M.R. (1999). *Jaarboek 1998 Grote-stedenbeleid. Deel 2, Statistische gegevens*, Rotterdam: ISEO.



# Section 7

## Reflections





# 14 The Evaluation of the Adult and Vocational Education Act: conclusions

KLARI-JANNE POLDER

*In this chapter, the results of the evaluation of the Act are presented. The main conclusion of the Steering Committee is that actors in the VET system – and especially the community colleges – are not making full use of their liberty as regards self-steering; this is one of the key features of the Act. The scope for self-steering, which the Dutch government aimed to give to the central actors in the system, is sometimes restricted by regulations made by the actors themselves. The tasks and responsibilities of the different actors are also not always clear. This general conclusion is based on an analysis of the scientific evaluation by the Steering Committee. According to the Steering Committee, resolving the central shortcomings of the Act demands an amendment to the Act.*

*The results of evaluation research can be used in different ways. The author states that the Steering Committee influenced the viewpoint of the then Minister in relation to a limited number of major problems, namely supervision and adult education. The scientific evaluation did not contribute to new statutory rules in the first place, but mainly to the Minister's intention to improve the implementation of the Act in practice.*

## 14.1 Introduction

In chapter 3, we stated that the evaluation of the Adult and Vocational Education Act (Staatsblad 1995, 501) could be characterised by three stages:

- the content of the Act, which is the starting point for the evaluation;
- methodology and process; and
- the effects of the evaluation.

These stages might be considered as part of the policy-making cycle.

In this chapter, we concentrate on the last stage, namely the effects of the evaluation. The three stages of the evaluation are once again presented in figure 14.1.

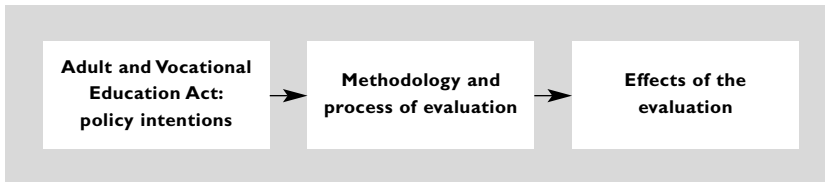


Figure 14.1: Stages of evaluation

As described in chapter 3, the scientific evaluation was followed by a political evaluation. In this chapter, more will be said about the effects of the scientific evaluation on the political evaluation outcomes, with special attention being paid to the degree to which policy-makers used the scientific evaluation results.

## 14.2 Outcomes of the scientific evaluation

In its final evaluation report, which is based on the results of the scientific evaluation programme, the Steering Committee concluded that the freedom for self-determination in the VET system made possible by the Act is not being used to full advantage. However, the tasks and responsibilities of all the actors are not always clear. Several actors are restricting the community colleges' freedom to act, because they are regulating the input or output of the system.

The Steering Committee made a selection of major problems, based on the steering principles and mechanisms of the Act and on the results of the evaluation studies (Stuurgroep Evaluatie WEB, 2001). The selection of major problems was related to:

- 1 the national qualification structure for *MBO* (upper secondary vocational education);
- 2 the public administrative steering of work-based learning (dual system and work experience);
- 3 the external validation and quality of examining;
- 4 the accessibility of the VET system and pathways;
- 5 the position of the student;
- 6 internal and external supervision;
- 7 the administrative steering of adult education;
- 8 the enforcement of provisional regulations.

### RE. I. THE QUALIFICATION STRUCTURE

The qualification structure for *MBO* should consist of core competences and should qualify in three ways, i.e. transition of the student to the labour market, citizenship, and transfer to *HBO* (higher vocational education). Furthermore, it should fit into the European context. In the Netherlands, there are 21 lead bodies, organised by trade sectors. Together they are responsible for advising the Minister of Education on the attainment targets of the system and on the coherence between the final attainment levels and competences according to the qualification structure. However, to bring about coherence needs much closer coordination within and between the lead bodies. On the basis of the evaluation studies (chapters 4 and 5), it was concluded that the lack of coordination between lead bodies caused greater differentiation in the qualification structure than necessary. Another consequence of this lack of coordination is the fact that vocational training courses do not qualify the student for long-term functioning on the labour market or in society (Brandsma et al., 2001; Heijke et

al., 2001). Skill formation and qualification is focused too much on just-in-time and just-enough skilling for the first job in a particular branch.

The Steering Committee recommended reducing the number of lead bodies to achieve the necessary coherence in the qualification structure and to reduce irrelevant overlap in attainment targets. The Committee proposed a reduction in the number of lead bodies from 21 preferably to four, namely one for each sector in *MBO*, i.e. one each for the technical, economics, care and agricultural sectors. In this way, the organisational conditions would be created to develop a coherent entity in the qualification structure per sector of *MBO*. To obtain more commitment from the groups involved during the development of the qualification structure, the Steering Committee proposed composing the boards of these new lead bodies of three parties, i.e. representatives of community colleges, employees, and employers. In addition to this proposed change in structure, numerous, active consultative structures with individual branches could and should be kept intact, to match the qualification structure to the demands of the labour market.

Coordination between the four new lead bodies should be close, since vocational domains are to an increasing degree going beyond one educational sector. The Steering Committee proposed no longer publicly funding the lead bodies on the basis of the number of qualifications which they control, because such a funding system hampers the development of broad qualifications.

In the opinion of the Steering Committee, the existing colleges of agricultural education and the community colleges should create an adequate platform to cooperate, aimed at increasing the possibilities to provide qualifications that go beyond one sector. In a similar fashion, the Ministry of Education should assume responsibility for agricultural education from the Ministry of Agriculture<sup>41</sup>. In this way, the best conditions are created to provide qualifications that go beyond one sector, to provide transparency in the educational system and to create a broad, objective educational and vocational orientation for students.

## **RE. 2. WORK-BASED LEARNING**

The evaluation research shows that the relationships between lead bodies, community colleges and companies are not functioning as they should when it comes to work-based learning: there is no guarantee of a satisfactory quality of work-based learning.

There is a lack of counselling of students by the community colleges in work-based learning, especially in the apprenticeship training. The quality of the setting for learning on the job is often inadequate (Heijke et al., 2001; Nieuwenhuis et al., 2001).

According to the Steering Committee, the community colleges should improve their communication with companies and businesses that create trainee posts for work-based learning. Furthermore, they should improve the coordination between vocational theory and vocational practice provided by businesses.

The boards of governors of the community colleges should pursue a tough strategic policy as regards the quality of guidance during work-based learning. This could be done by reserving funds for specialised work-based learning guides, who would function under the coordination of the community colleges.

<sup>41</sup> The Minister of Agriculture has a special competence to regulate agricultural education at all levels of the system, although there is a fine-tuning mechanism between the two departments.

In the first place, improving the quality of work-based learning should be done by upgrading the expertise of the supervisors who are concerned with work-based learning and who function under the coordination of the businesses.

This is why the Steering Committee proposed making the certification of work-based learning supervisors compulsory. Small companies should, however, be released from this obligation, because certifying supervisors would be a disproportionate burden.

### **RE. 3. EXAMINATIONS**

The existing system of examining does not guarantee valid and reliable examinations, because of the market forces operating between the community colleges (who have the competence and are responsible for organising examinations) and the examination institutions (who are responsible for external validation) (Nieuwenhuis et al., 2001).

The Steering Committee recommended that the quality of the examining of a course should be certified, also in relation to work-based learning. The function of controlling the quality has to be organised to guarantee the credibility and market value of certificates: business and industry must be sure about the value of the certificates obtained by the graduates of a particular course. An independent certifying institute should therefore be established, which would supervise the quality of the examinations. This certifying institute should have a supervisory board of its own, representing the community colleges, employees and employers. However, an independent board in relation to the executive level of examining is essential.

### **RE. 4. ACCESSIBILITY**

The evaluation research shows that the accessibility of VET is not optimal, mainly because of the inflexibility of the funding system. Students can start at only one moment at the beginning of the school year, which hinders customised training and education as intended by the Act. Furthermore, output funding based on the number of certificates at the lowest level (level 1) hinders direct entry at level 2. The match between lower secondary vocational education and MBO is inadequate in several respects (De Bruijn, 2001; Doets et al., 2001; Van der Velden et al., 2001). The Steering Committee therefore recommended making the funding system flexible, in order to realise a higher degree of accessibility, especially for target groups, and to develop courses which fit individual needs. The Steering Committee proposed implementing a funding system based on a certain range of student enrolment, within which ranges students could enter or leave a college, without any financial consequences for the school. Furthermore, the same funding system should be used to finance courses in both pathways: the work-based pathway (with 60% or more work-based learning) and the school-based pathway (with 20%-60% work-based learning). Students might switch between the two pathways during their courses.

To stimulate the number of school-leavers transferring from lower secondary vocational education to MBO, the community colleges should reserve capacity to make bridging programmes. It is necessary to cooperate with lower secondary schools in the region and to develop as many courses as possible internally which match the individual needs of students. In addition, legislation, which was coming into force, on the regional registration of unqualified school-leavers and on coordinating an adequate track for them (to the labour market or back to college) should fill a gap.

### **RE. 5. THE POSITION OF THE STUDENT**

In the Act, the position of the student is formally guaranteed (Leenknecht et al., 2001). However, in the opinion of the Steering Committee, the position of the student should actually also be strengthened.

In the Netherlands, a student signs two contracts: the first is the educational contract between the student and the community college. The second is the work-based learning/training contract between the student, the community college, the company and even the relevant lead body that selects the trainee post for work-based learning. In addition, an officially recognised document exists in which the regulations about the course and the examinations are formulated. It should function as an instrument to inform students about their rights and obligations. The Steering Committee recommended that the general regulations of the education contract, the work-based training contract and the Education and Examination regulating documents should be integrated. This should be done in such a way that the legal protection of the student is preserved. A right of complaint for students should be included in this students' statute.

#### **RE. 6. SUPERVISION**

The evaluation results show huge differences between community colleges in their organisational capacity. Quality control is developing very slowly and internal support for this is growing slightly but is still meagre. The community colleges' self-steering capacity leaves much to be desired (Karstanje et al., 2001).

According to the Steering Committee, the Act should be amended in such a way that clear administrative responsibility is regulated between the board of the community college on the one hand and the supervisory board on the other. The supervisory board should preferably consist of a strong representation of regional partners. In its annual report, the community college should account for how it has achieved its major tasks and targets, mainly to the Minister. However, as this annual report is public, anybody can read it. Quality control is aimed at improving the quality of education. The existing quality control report is less effective for this purpose and should be abandoned. A system of independent accreditation and audits should be part of the quality control. The perspective should be a system of accreditation of courses in *MBO* and adult education, comparable to the existing system in higher education.

#### **RE. 7. ADMINISTRATIVE STEERING OF ADULT EDUCATION**

In the Netherlands, the government's budget for adult education is divided yearly among about five hundred local authorities, mainly on the basis of the number of ethnic minority adults belonging to a certain local area. However, the public administrative steering of adult education provision shows a lack of coordination between local authorities in the regions. Local authorities do not combine their budgets frequently, which can mean an extra time investment by community colleges in negotiations with – often small – local authorities. If a student has completed training, officially recognised within the framework of the national qualification structure for adult education, he or she should be able to move on up to a study programme officially recognised within the framework of the national qualification structure for *MBO*. However, this occurs less frequently than it should (Brandsma et al., 2001).

In the opinion of the Steering Committee, it would be more efficient in administrative terms if a community college, departing from its expertise, were to coordinate the allocation of the budget for the provision of adult education in the region, instead of the local authorities separately. A community college contracts local authorities and is responsible for realising a balanced and long-term provision of adult education, if possible geared to *MBO*. Adults who have their residence within the domain of a contracted local authority are allowed to apply. In its public annual report, the community college has to account for the way it has spent its budget, mainly to the Ministry of Education, which is the financing

body, but also to the local authorities, which are the interested parties. According to the Steering Committee, its proposal offers a better condition to match programmes between adult education and MBO. In this way, community colleges will obtain more flexibility to develop combined courses.

#### **RE. 8. PROVISIONAL REGULATION**

It turned out that the Ministry of Education implemented provisional regulations on a broad scale, which created a heavy administrative load for community colleges (Leenknecht et al, 2001). According to the Steering Committee, it is advisable to limit necessary deviations from the Act. Furthermore, to increase legal security and to prevent appeals, the Ministry should strive to simplify funding rules and pay a great deal of attention to their continuance.

### **14.3 About the use of evaluation outcomes**

In the Dutch evaluation process, the scientific evaluation of the Act, coordinated by the Steering Committee, preceded the political evaluation by the Minister of Education and the Lower Chamber. At this stage of the evaluation process, the essential question is to what degree politics uses the results of the scientific evaluation. In literature, considerable attention is paid to problems related to matching evaluation research and the practice of policy-making (Andriessen et al., 1987; Bressers & Hoogerwerf, 1991; Polder, 1996; Weiss, 1990). Several factors are suggested which hamper the use of evaluation results.

Sometimes, evaluation research turns out to be unusable for the practice of policy-making. This may be caused, for example, by the fact that:

- a the evaluation researcher has paid little attention or none at all to the problems which concern the policy-maker;
- b the evaluator has ignored the way judgements are made in policy practice. Weiss (1990, p.175) stated: "(...) it is not the single decision maker, the benevolent despot, who uses evaluation to improve the program. Rather, evaluation findings – and generalisations from those findings – come into currency among the many groups and interests involved in a policy domain";
- c the results and recommendations hardly offer anything that serves as a springboard to initiate change.

Sometimes, policy-makers do not recognise the practicability of evaluation research, in which case, non-use is caused, for example, by the fact that:

- a the evaluator has not given a satisfactory presentation of the evaluation research;
- b policy-makers think that they themselves and their position are threatened by evaluation research. This is linked to the fact that:
- c policy-makers have a more open attitude to new information in the early stages of the policy cycle than in the later stages;
- d policy-makers expect 'hard proof' and 'ready-made solutions' and fail to appreciate the nature of the results of evaluation research.

What do we mean precisely by the term 'use of research results'? Three stages of such use may appear (Bressers & Hoogerwerf, 1994; Winter et al., 1990):

- 1 *Cognisance*: During the preparation of the policy and policy formulation, one can speak of a beginning of the use of research, when the relevant people who prepare and formulate policy become aware of the research. They read the report and examine the research results;
- 2 *Influencing of viewpoint*: In the second stage, research can be expressed in the way people who prepare and formulate policy interpret reality and take a certain standpoint. Thus their judgement of policy is influenced by the research results;
- 3 *Effects*: In the third stage, the research results really have effects when these results are actually expressed in a policy design, for example, when a recommendation results in a new act or regulation. In the implementation stage of policy, one can speak of the use of research when the research-based policy is actually implemented and when this policy is effective and the problem at which the policy was directed is solved.

In section 14.5, we use this distinction to qualify the use of scientific evaluation in the political evaluation process.

#### 14.4 Political evaluation process

As mentioned before, in the evaluation process, the scientific evaluation of the Act, coordinated by the Steering Committee, preceded the political evaluation by the Minister of Education and the Lower Chamber. The final evaluation report of the Steering Committee has functioned as input for the political evaluation process. In this process, the Minister firstly asked organised interest groups for their opinion about the conclusions and recommendations formulated in the final evaluation report. As already occurred during the second hearing (see chapter 3), the community colleges agreed with the recommendations of the Steering Committee to a large degree; they agreed with the proposed increase in autonomy for their organisation and educational provision and a reduction in rules. However, other parties – namely the lead bodies and the employers – were against the recommendations; in their opinion, they would lose their influence on vocational education if the recommendations were to be implemented. They were afraid of a widening gap between vocational education and the labour market.

The Education Council (*Onderwijsraad*, 2001) also advised the Minister at his request on the evaluation results of the Steering Committee. Besides, the Inspectorate of Education (*Inspectie van het Onderwijs*, 2001) published an evaluation report of its own accord. In November 2001, the Minister sent his reaction to the Lower Chamber. At the end of the evaluation process, the political debate about the functioning of the Act took place.

#### 14.5 Effects of the evaluation

In his reaction to the Lower Chamber of November 2001, the Minister stated that the statutory regulation of a specific date of evaluation meant that the evaluation of several parts of the VET system had taken place too early, especially regarding transition to the labour market and the full implementation of the Act for all qualifications. This was an observation which was in accordance with the view of the Steering Committee.

It was not possible to make visible all the performances of the Adult and Vocational Education sector in the period on which the evaluation concentrated. The implementation process of an act needs time.

At the same time, the Minister drew the conclusion that the evaluation of other parts had taken place too late. According to him, he had to react swiftly to these topics. Examples are: the quality of the examinations, the match between programmes of the systems for vocational education, the position of the student, public accountability (including student attainment), and the programming of education. In the Minister's opinion, the Act in its existing form offers enough flexibility to attain the formulated targets. He drew the conclusion that the Act and regulations based on it needed amending on only a few points. He also concluded that fundamental changes to the structure were not expedient at this moment. In spite of this, according to the Minister, an improvement in the quality of several parts of the system can and must be realised. In his opinion, the final evaluation report of the Steering Committee, the Education Council's advice and other reactions received give sufficient cause for that. An effort to improve quality and student performance is certainly needed within the framework of the existing Act and regulations. Amending the Act in the future is related to a mid-term study about vocational education. In his policy reaction, he mainly paid attention to topics which needed extra action in the short term, and for which it was possible to present results to the Lower Chamber in May 2002, just before the change of cabinet.

The policy reaction to the eight major problems identified by the Steering Committee for the evaluation of the Vocational and Adult Education Act can be typified as follows:

It is very remarkable that, in relation to the three major problems identified – namely external validation and the quality of examining (3)<sup>42</sup>, the position of the student (5) and the enforcing of provisional regulations (8) – the policy reaction does not explicitly refer to the final evaluation report of the Steering Committee.

Explicit references are, however, made to the other five major problems identified.

#### **PROBLEM 1. QUALIFICATION STRUCTURE FOR VOCATIONAL EDUCATION**

In relation to the problem with the qualification structure for vocational education, the use of the scientific evaluation results can be typified as 'influencing of viewpoint'.

The Minister:

- subscribed to the viewpoint of the Steering Committee that coherence within the qualification structure should improve, namely via a joint format and a content of enduring competences;
- subscribed to the necessity for intensive forms of cooperation between the lead bodies (but rejected a top-down merger);
- subscribed to the proposal of the Steering Committee no longer to fund the lead bodies on the basis of the number of qualifications which they control;
- would like to study the character of level I courses (but, in his view, qualifications at level I must remain part of the qualification structure, aimed at the labour market);
- subscribed to the viewpoint of the Steering Committee that constructions of cooperation between agricultural community colleges and community colleges should be stimulated;
- announced a study of the forms of cooperation between the two kinds of vocational education and the legal impediments to cooperation. In this study, the content of education, the offering of opportunities to students and their choice from as broad a provision as possible remains central.

<sup>42</sup> Although the KCE, the Quality Center for the Examinations, became effective on July 1, 2001.



According to him, the question of the extent to which cooperation concerning content will and must have consequences for the institutional form and steering by the Ministry is a subsidiary question to this and will therefore be discussed later.

#### **PROBLEM 2. THE ADMINISTRATIVE STEERING OF WORK-BASED LEARNING**

In relation to the problem of the administrative steering of work-based learning, the use of the scientific evaluation results can be typified as 'influencing of viewpoint'.

The Minister:

- would like to improve the guidance of students by the community colleges;
- would like to improve assessment of the quality of trainee posts for work-based learning by the lead bodies. A study into expressing standards will be initiated with the following options: certifying, accreditation and supervision by the Inspectorate of Education. Through the instrument of multiple accountability to the public, lead bodies should make visible how they are dealing with work-based learning supervisors in the companies and how their quality is guaranteed for judging the quality of the work-based learning. The Minister, however, rejected the idea of the Steering Committee to make the certification of work-based learning supervisors compulsory. This would be too stringent a requirement for middle and small-scale companies, which would then perhaps refuse to make trainee posts available;
- decided to ask the Social and Economic Council for further advice.

#### **PROBLEM 4. ACCESSIBILITY OF EDUCATION AND INDIVIDUAL COURSES**

In his policy reaction, the Minister referred to the viewpoint of the Steering Committee that the funding system is inflexible and hampers the accessibility of education. The use of the scientific evaluation results can thus be typified as 'influencing of viewpoint'.

The Minister is initiating a study of the design of a new funding system.

#### **PROBLEM 6. SUPERVISION**

In his letter to the Lower Chamber of 10 January 2002, the Minister referred to the final report of the Steering Committee in relation to the reinforcement of internal supervision of community colleges. He also referred to the standpoint of the Education Council and that of the association of community colleges to demonstrate that his proposal had general support. He proposed creating a governing body (competent authority) and a supervisory board in each community college. We conclude that the scientific evaluation results have really had effects, because the recommendation is actually expressed in a policy design (i.e. amending the Act).

#### **PROBLEM 7. ADMINISTRATIVE STEERING OF ADULT EDUCATION**

In relation to the problem of administrative steering of adult education, the use of the scientific evaluation results can be typified as 'effect'.

The Minister:

- mentioned explicitly the proposal of the Steering Committee, namely to decentralise the budget for adult education to the education institutions. However, in his opinion, the existing philosophy of public administrative steering, in which the responsibility for planning and funding is decentralised to the local authorities, should be maintained;
- recognised that the planning and funding of adult education should improve. Attention will be paid to target groups, which have been neglected, such as illiterate native Dutch people. He promised that

the Ministry of Education would streamline policy with other departments. He therefore entered into consultations with the Union of Netherlands Municipalities. In December 2001, an agreement was signed to strengthen the cooperation between local authorities and to improve adult education;

- subscribed to the viewpoint of the Steering Committee that maintenance of the qualification structure for adult education was necessary, also with an eye to improving the match between adult education and *MBO*. He mentioned the qualification structure for adult education as being an important instrument in the framework of guaranteeing the quality and transparency of the provision of adult education.

We conclude that the scientific evaluation results have really had effects, because the recommendation is actually expressed in a policy design.

## 14.6 Conclusions and discussion

In this chapter, we have concentrated on the effects of the evaluation in terms of the degree to which policy-makers use the results of the scientific evaluation. This evaluation of a particular act is a Dutch case, which might serve as an example to other countries that would like to evaluate and improve their legislation systematically.

We can conclude that the policy-makers were informed of all the major problems identified by the Steering Committee. However, the Steering Committee only succeeded in influencing the Minister's viewpoint in relation to a limited number of major problems. After a few months, it turned out that the evaluation results had had an effect on two points, namely supervision and adult education, for which a new policy has been designed (an amendment and an agreement). Thus, the scientific evaluation did not contribute to new statutory rules in the first place, but mainly to the Minister's intention to improve the implementation of the Act in practice. The scientific evaluation mainly supported the argument, the consideration of viewpoints and alternatives for action.

How can we explain the limited use of the scientific evaluation? The scientific evaluation might be judged to be of good quality: an ample budget was available and there was a team of eminent researchers. Thus, we have to consider other explanations for its limited use.

From the literature, it was already known that policy-makers have a more open attitude towards new information in the earlier stages of the policy cycle than in the later ones.

Now that the Act has been implemented, policy-makers are obviously not inclined to make new changes to its structure. However, the limited use of the scientific evaluation results could be explained largely by the fact that elections took place in May 2002. The Minister restricted his actions to the short term. Only after the elections can a real, full judgement be made about the issue of whether the scientific evaluation has had an effect on new policy designs. From a political viewpoint, the evaluation came at a bad moment. Questions therefore arose about the fixed evaluation dates in the Act. Perhaps it would be wise to regulate the evaluation date in an act, to make sure that evaluation really will be performed. If so, policy-makers should choose this evaluation date very carefully, and choose a moment when the outcomes of the functioning of an act are measurable, for example, in terms of the output of new courses.

In addition to this, obviously not only the evaluation of the Act has turned out to be of influence, but so have other parallel policy tracks. We can therefore fully agree with Weiss' quotation, namely:

“evaluation findings – and generalisations from those findings – come into currency among the many groups and interests involved in a policy domain”.

## References

- Andriessen, J.H.T.H., Baaijens, J.M.J., Hirsch Ballin, E.M.H. & Snellen, I.Th.M. (red.) (1987). *Wetsevaluatie tussen wetenschap en beleid*. Zwolle: W.E.J. Tjeenk Willink/KUB.
- Brandsma, J., m.m.v. Jong, T. de, Karsten, S., Venne, L. van de & Felix, C. (2001). *Leren kwalificeren. De inhoudelijke aansluiting van beroepsonderwijs en educatie op de maatschappelijke vraag*. Themarapport 1a. Zoetermeer: Stuurgroep Evaluatie WEB.
- Bressers, J.Th.A. & Hoogerwerf, A. (red.) (1991). *Beleidsevaluatie*. Alphen aan de Rijn: Samsom H.D. Tjeenk Willink, 2e druk.
- Bruijn, E. de (2001). *Aansluiting tussen stelsels*. Themarapport 5. Zoetermeer: Stuurgroep Evaluatie WEB.
- Doets, C., Westerhuis, A., Klarus, R., Meijers, F., Thomas, E., Vrieze, G., Dinjens, F., Neuvel, J. & Pauwels, T. (2001). *Voldoen aan individuele vraag, toegankelijkheid, positie deelnemer*. Themarapport 2. Zoetermeer: Stuurgroep Evaluatie WEB.
- Heijke, H., Borghans, L. & Smits, W., m.m.v. Boer, P. den, Frietman, J. & Hövels, B. (2001). *De WEB tussen vraag en aanbod*. Themarapport 1b. Zoetermeer: Stuurgroep Evaluatie WEB.
- Inspectie van het Onderwijs (2001). *Van WEB tot werkelijkheid. Een rapportage over de evaluatie van de WEB*. Inspectierapport, no. 2001-7. Utrecht: Inspectie van het Onderwijs.
- Karstanje, P., Esch, W. Pauwels, T., Ingen, D. van, Berdowski, Z., Hoeben, J., Vermeulen, M., Vink, R., Wiekeraad, M. & Venne, L. van de (2001). *Zelfsturend stelsel, autonomie instellingen, kwaliteitszorg*. Themarapport 6. Zoetermeer: Stuurgroep Evaluatie WEB.
- Leenknecht, G.-J., Eijlander, P., Blom, K. van, Pullens, M., Rietveld, J.J., Vermaas, J., Wiekeraad, M. & Zoontjes, P., m.m.v. Horning, N. (2001). *Bestuurlijke en juridische aspecten van de WEB. Andere bestuurlijke verhoudingen, vermindering bestuurslast*. Themarapport 7. Zoetermeer: Stuurgroep Evaluatie WEB.
- Nieuwenhuis, L.F.M., Berkel, H.J.M. van, Jellema, M. & Mulder, R.H., m.m.v. Meijer, B. & Zijlstra, N. (2001). *Kwaliteit getoetst in de BVE. Kwaliteit en niveau van aanbod en examens in het beroepsonderwijs en de volwasseneneducatie*. Themarapport 3. Zoetermeer: Stuurgroep Evaluatie WEB.
- Onderwijsraad (2001). *WEB: Werk in uitvoering. Een voorlopige evaluatie van de Wet Educatie en Beroepsonderwijs*. Advies. 's-Gravenhage: Onderwijsraad.
- Polder, K.-J. (1996). *Implementatie van wetgeving in onderwijs. Beleidsevaluatie-onderzoek in basisonderwijs en volwasseneneducatie*, dissertatie. Leuven-Apeldoorn: Garant.
- Staatsblad (1995). *Wet Educatie en Beroepsonderwijs*, no. 501. 's-Gravenhage: Sdu Uitgevers.
- Stuurgroep Evaluatie WEB (2001). *De WEB: naar eenvoud en evenwicht*. Zoetermeer: Stuurgroep Evaluatie WEB. Also published on the website of the Dutch Ministry of Education, Culture and Sciences ([www.minocw.nl](http://www.minocw.nl)).
- Weiss, C.H. (1990). *Evaluation for decisions: Is anybody there? Does anybody care?* In: Alkin, M.V. (ed.). *Debates on evaluation*. Newbury Park/London/New Delhi: Sage publications.
- Velden, R. van der, Berkenbosch, J., Bruijn, E. de, Jong, U. de, Voncken, E., Geerligts, J., Lokman, I., Veen, F. van der & Wolbers, M. (2001). *Toegankelijkheid, intern rendement en doorstroom*. Themarapport 4. Zoetermeer: Stuurgroep Evaluatie WEB.
- Winter, H. B., Scheltema, M. & Herweijer, M. (1990). *Evaluatie van wetgeving*. Deventer: Kluwer & Groningen: Vakgroep Bestuursrecht en Bestuurskunde, Rijksuniversiteit Groningen.



# 15 Looking ahead: Recent developments in Dutch VET Policy

WIL VAN ESCH

*The central issue of this book is the scientific evaluation of the WEB (Dutch Adult and Vocational Education Act). This evaluation took place between June 1999 and June 2001. In the meantime, there has been a very radical political upheaval, which has delayed progress and development, as is the case with vocational education. Nevertheless, a series of intentions and plans have been developed since the presentation of the final evaluation report of the Steering Committee. In this epilogue, we present and reflect on recent developments in Dutch VET policy.*

## 15.1 Introduction

In chapter 14, Klari Janne Polder concludes with an evaluation of the policy actions based on the scientific evaluation of the WEB (Adult and Vocational Education Act). Since then, the Dutch vocational education policy-making process has not stopped, but the direct link with the scientific evaluation and conclusions has become rather tenuous. Many initiatives have been implemented or are underway, partly as a consequence of the evaluation studies.

On the basis of central policy documents, we sketch the main lines of Dutch VET policy in the period since 2001, using the core themes of the evaluation of the Dutch VET system, which are:

- 1 the national qualification structure for MBO (upper secondary vocational education);
- 2 the public administrative steering of vocational practice training;
- 3 the external legitimation and quality of examining;
- 4 the accessibility of education and individual courses;
- 5 the position of the student;
- 6 internal and external supervision;
- 7 the administrative steering of adult education<sup>43</sup>.

In these core themes, we recognise three central policy themes that have formed the core of Dutch vocational education policy in recent years, namely quality, accessibility and self-governance (*Ministerie*

<sup>43</sup> There is an eighth theme (The enforcing of provisional regulations). With regard to this theme, no interesting developments can be reported.

van OCenW [Ministry of Education], 2003a). One central policy starting point is that “educational institutions have to develop to service organisations that organise learning routes for (groups of) students in an adequate learning environment”. In this vision, quality must be directed by the needs of the clients. For central administration, this means less steering by regulation beforehand and more attention to accountability for quality in retrospect. These quality institutions (Edquist, 1997; Nieuwenhuis, 2002) include: the qualification structure, examinations, work-based learning, and internal and external supervision.

The second policy issue is *accessibility*, the way in which educational institutions succeed in serving different groups of students effectively. At the European Council at Lisbon 2000, the European Union declared that it would become the most competitive and dynamic knowledge-based economy in 2010, and the Netherlands intends to be among the forerunners in Europe. One main policy incentive to realise this ambitious goal is lifelong learning<sup>44</sup>. Lifelong learning can contribute to the growth of labour productivity and to participation through the maintenance of human capital, including raising the education level of the population and the promotion of reintegration into the labour market.

The third policy principle is *self-governance*. This policy principle is aimed at strong autonomous educational institutions and other actors in the VET field, both at the national and regional level. However, it is especially at the regional level that cooperation between educational institutions and business and industry deserves attention.

The outline of this chapter is as follows. First, we present recent developments in the seven themes that formed the core themes of the evaluation of the Dutch VET system and then sketch the contours of central policy items for the mid-term.

## 15.2 Recent developments: the seven policy themes

### 15.2.1 The national qualification structure for MBO (upper secondary vocational education)

The coordination of the transformation of the qualification structure is now in the hands of *COLO*, which is a new policy step, when compared with the situation between 1996-2001, and is a consequence of the criticism of the evaluation studies, in terms of a lack of standards, coherence, cooperation and transparency (see chapters 4 and 5). In July 2002, *COLO* presented a report called “*Samen werken aan leren*” (Working together on learning). This policy report is the final product of a project that aimed at the development and implementation of a new qualification structure based on *competencies*, which should be supported by all the lead bodies. This report lays the foundations for a structure for the future.

The foundations can be described as follows (Blokhuis & Visser 2002; *COLO* 2003):

- the legal requirement for threefold qualification would be fulfilled on the basis of competencies; finishing MBO successfully would qualify a student as a junior responsive craftsman;
- a distinction is made between a qualification structure (the structure of occupational competencies) and a structure of diplomas and certificates (design of learning pathways);
- striving at greater transparency of qualifications by reducing meaningless redundancy, and re-engineering the process of development and implementation of diploma units.

<sup>44</sup> Lifelong learning can be defined as: all learning activities that are unfolded during one's whole life to acquire and to improve knowledge and skills and competencies from a personal, social perspective and the perspective of employment (SER 2002a).

In the autumn of 2002, the Undersecretary of State asked ACOA to advise on the *COLO* proposal. ACOA subscribes to the principles of the *COLO* report:

- the position of *MBO* in a vertical pathway: prevocational → secondary vocational → and higher professional education, called the VET column;
- the threefold qualification process;
- responsive craftsmanship is the basis for the content of VET;
- qualifications and qualification profiles provide guidance for the intended end result of study programmes, but do not prescribe the operational process.

The ACOA raised some critical notes:

- criteria are needed to define what is meant by the term qualification;
- the separation between a qualification structure and a structure of certificates;
- the four levels of the qualification structure should be reduced to two;
- the level of assistant should be updated;
- career competencies as promoted by the *Bve Raad* (Adult and Vocational Education Council) (see also Kuijpers, 2003; Toolsema, 2003) should not be separated from vocational, learning and citizenship competencies; they are a dimension that intersects with other competencies.

In a reaction, the Secretary of State endorsed most of the recommendations. The attempt to reduce the number of qualifications from about 800 to around 300 is acceptable, although she was aware of the concerns about the identity of the new qualification for business and industry. Even reducing the four qualification levels to three is considered as worthwhile.

The change in competencies is supervised by a process management team, which consists of the *Bve Raad* and *COLO* (Procesmanagement, 2003). In June 2003, the management observed a growing sense of urgency to cooperate among community colleges and lead bodies. There seems to be an increasing consensus on the conceptual framework.

The main bottleneck for the realisation of the competence-based qualification structure is the reduction in the qualification profiles (for reasons for this reduction, see other chapters, e.g. chapter 14). In a first attempt, the lead bodies reduced the diplomas, qualifications, and competencies from over 700 to 431; they expect that a reduction to fewer than 300 qualification profiles is possible. In their opinion, a further reduction would seriously strike at the identity of the qualification profiles and undermine the support for the new qualification structure.

On the other hand, several community colleges have started innovative routes, based on competencies, by which students will be qualified in a broad sense in order to contribute to the durability of the certificate. This friction between identity and durability will be an issue for the near future.

It is intended that, from 1 January 2006, it will be possible to distribute certificates on the basis of competencies. The implementation of the new qualification structure will be guided by the principle of Care & Courage: care about the careful winding up of existing systems and courage for the development of new structures. It remains to be seen how this principle will be worked out and if the intended effects will be achieved.

### 15.2.2 The public administrative steering of vocational practice training

The permanent commission of members of the Second Chamber for Education discussed the issue of work-based learning because of the low quality of supervision and guidance of work-based learning by community colleges and companies: there are no standards

The Minister of Education announced steps to be taken to improve the support of students at the workplace (e.g. the development of standards (see also Blokhuis, Jellema & Nijhof, 2002) by the community college and the quality assessment of apprenticeship places in companies by lead bodies (see chapter 9 by Frietman).

For teachers and students, the aims of work-based learning need to be clarified. The role of the Inspectorate regarding the inspection of apprenticeships is unclear. The Inspectorate checks the quality of places in a more general way, the *KCE* (Quality Centre for Examinations) (see next section) checks the testing within the places and is, in its turn, inspected by the Inspectorate.

These and other issues around vocational practice training are subjects for discussion in the *CWL* (*Contactgroep Werkend Leren* [Contact group for Work-based Learning]). Members of this contact group are: the Ministry of Education, representatives of employers and employees, *Bve Raad*, *COLO*, *Paepon*, the Education Inspectorate and *JOB* (student organisation for VET). The *CWL* aims to look for solutions to problems within vocational practice training and in the relations between the various actors. It remains to be seen which solutions will be proposed and if they work out as intended.

On the basis of four standards, the Inspectorate concluded that 60 per cent or more of the investigated apprenticeship places in work-based learning were assessed as effective. The connection between theory and practice, however, remains a weak point.

### 15.2.3 The external legitimization and quality of examining

The evaluation of the *WEB* showed that external validation in *MBO* is unsatisfactory. As a consequence, the full recognition of diplomas and certificates on the labour market is under pressure. The results of the evaluation of the *WEB* are in accordance with the reports of the Dutch Education Inspectorate; more than half of the community colleges have taken inadequate measures to improve the situation, and a quarter of the study programmes investigated do not satisfy the legal requirements of external legitimization.

On the basis of a proposal by a Steering Committee for *MBO* Exams, a new independent quality centre was established in 2002, called the *KCE*. The policy principle behind this institution is that the central actors in the VET system assume their own responsibility; through self-regulation, the quality of examinations should improve. This policy requires a modification to the Act. In the discussion around the establishment of the *KCE*, there were doubts as to whether this new quality centre was urgently needed, in addition to, for example, the Inspectorate. Furthermore, the question was raised of whether the *KCE* would lead to more bureaucracy. It remains to be seen if this criticism will be proved correct.



#### 15.2.4 The accessibility of education and individual courses

Participation in western economies, especially in the knowledge-based economies, requires a so-called basic qualification (level 2 of the VET qualification structure). About two million Dutch people do not possess such a qualification. The *SER* (Social and Economic Council (2002a)) advised the government to realise this through the prevention of early school-leaving in prevocational education and *MBO* and through dual learning pathways, combined with the assessment of prior learning (*APL*). In line with the Lisbon agreement (March 2000), the government aims to reduce by 50 per cent the number of unqualified early school-leavers in the age range 18-24 by 2010. The main issue is to achieve 30 per cent of this reduction by 2006. Another target of the Cabinet is to ensure that, by 2007, 70 per cent of the young people that cannot be sent back to education acquire a basic qualification during work. Some 35 per cent of students discontinue their training, particularly in the first year of the course, at the lowest level and in the school-based pathway. A considerable part of this group goes on to another study programme. According to estimates by the Inspectorate, between 12 and 25 per cent of students leave VET without a diploma. Members of ethnic groups are overrepresented within this category. Most of these early school-leavers set foot on the labour market without a basic qualification. In a period of a recession, their position is fragile – not to say endangered.

One of the issues around the accessibility of vocational education is the position of underprivileged students. The Education Report 2002 states that, in two-thirds of the study programmes at the lower qualification levels, activities are directed at the accessibility of underprivileged students. At the higher levels, this is considerably less. Study programmes at the lower levels thus fulfil the function for which they were designed and implemented. At the same time, the Inspectorate reports that the transition from the lower levels of adult education to vocational education and training is still very limited. The Inspectorate even concludes that the supply of adult education has narrowed. It seems as if the situation in adult education has not changed very much since the evaluation of the *WEB*.

#### 15.2.5 The position of the student

From a policy point of view, the position of the student can be seen from an educational and an institutional perspective. From the educational perspective, we see a strong policy of the Dutch government to stimulate the students' *educational career* in the VET column as a central issue for schools and lead bodies. The institutional perspective has its manifestation in granting students more influence on the educational strategy of institutions. We will now elaborate the educational perspective.

One possible consequence of the knowledge society that is expected to emerge is that there has to be a higher skilled population (see for counter-arguments Keep & Brown, 1999; Payne, 2002; Toolsema, 2003). The direct route to higher education through general education cannot provide for these skills. Most of the students from upper secondary education already go on to higher education, so it is supposed that this route will not be able to meet the need for higher skilled people. The Dutch administration is focused on activating a second royal route to the knowledge society: the vocational route. Educational institutions in the VET sector (prevocational, secondary and higher) receive extra money from the Dutch government to promote actions directed at:

- 1 the improvement of career orientation and guidance of students, by paying more attention to orientation and information about vocational training and occupations, and by better guidance of

students at school and in work-based learning (mentoring; coaching); furthermore, setting up a good transfer and intake system to further education and training by means of assessment;

- 2 the improvement of delivery systems by developing continuous, efficient and flexible pathways; the development of competency and career-directed curricula, based on theory and practice;
- 3 the development of a recognisable pedagogy for VET that supports orientation towards occupational life and integrates work-based learning into vocational education;
- 4 the strengthening of the knowledge infrastructure by better cooperation between education, VET research, and business and industry.

A theme that cuts through the above-mentioned themes is the promotion of expertise among teachers and practice coaches. These professionals have to play a crucial role in stimulating innovations and improving achievements.

Another policy item is the attempt by the Ministry to improve information for students concerning aspects of the study programmes and the educational institution.

It is not only the educational institutions that are expected to contribute to enforcing the position of the student, the lead bodies can also contribute to this. The lead bodies contribute by way of:

- 1 improvement in the connection between the qualification structure for secondary vocational education and prevocational and higher vocational education;
- 2 enforcement of the quality of work-based learning (including apprenticeships) in the VET sector;
- 3 development of competence-based vocational education.

The policy to strengthen students' careers is called Impulse for VET 2003-2005. The foundation of this policy was prepared by a commission. The results of VET Impulse and the process will be monitored. The quantitative monitor will focus on added value, in terms of higher competence formation (qualification profit) and the qualitative monitor will deal with the question of whether the institutions are making progress in reaching the goal of strengthening students' careers. Both monitors make use of indicators. (see also chapter 7).

Some empirical results show that the idea of putting the needs of individual students more at the core of the educational process is now better incorporated into the strategic policy of educational institutions. The proof of the pudding, however, will be the operationalisation and realisation of this way of thinking on the shop floor. In this respect, much can be gained (Van Esch & Neuvel 2003). The Inspectorate states that the realisation of flexible learning pathways is disappointing, even though nearly 60 per cent of the study programmes of multi-sector community colleges are flexible enough to enable tailor-made study programmes. For one-sector community colleges, this figure is 38 per cent. In a quarter of the investigated cases, there is an unnecessary loss of time when a student wants to follow another study programme or changes his learning pathway (for instance, from school-based to work-based).

### 15.2.6 Internal and external supervision

One of the concrete policy aims is that, from 2003 onwards, all community colleges will have at their disposal a complete and effective quality system in operation (Annual Report 2002). Nearly 40 per cent of colleges indeed have a good quality system. Because of this result, the government is stimulating an administrative route in which the *Bve Raad*, Paepon and *COLO* play a stimulating role in the improvement of the quality system.

In the meantime, the new Education Inspection Act has been passed. A central principle of this Act is 'proportional supervision'; institutions are, in the first instance, responsible for their own educational quality through self-evaluation, which is the basis for the Inspectorate to act upon. There is a tendency for stakeholders to demand institutions to account for the quality of education. By means of multiple public accountability, the pressure on institutions will grow to fulfil this expectation. A bill has been developed to root the supervisory boards in the Adult and Vocational Education Act.

### 15.2.7 The administrative steering of adult education

In January 2002, the Ministry of Education and the VNG [Association of Dutch Municipalities] signed a letter of intent containing:

- a survey of the steering of VAVO<sup>45</sup>;
- elaboration of the issue of so-called 'compulsory shopping';
- streamlining of policy and information.

Municipalities are obliged to spend money for courses and study programmes for the adult population of the municipality at the regional or local community college. This is called 'compulsory shopping'. The central administration is reflecting on the question as to the conditions under which this policy of compulsory shopping can be abolished. The government formulated as its starting point that the accessibility, quality and continuity of the provisions should be guaranteed.

## 15.3 Mid-term issues

In the middle of 2003, a central policy document regarding vocational education, called *Koers BVE II* (VET Course II), was in preparation. In the letter in which the preparation of this document was submitted to the Second Chamber, an agenda with the following subjects was published (*Ministerie van OCenW*, 2003):

#### I Building blocks for a vision of vocational education

Trends, developments and changes influence vocational and adult education and training. Trends, developments and changes have been mapped out and will be tested through discussions with students and teachers, with representatives of educational institutions and lead bodies, with representatives of the employers and employees, and national experts.

<sup>45</sup> VAVO means adult general secondary education and gives adults the opportunity to gain a certificate in lower or upper secondary education. VAVO is part of adult education, which itself is a part of the community colleges.

## 2 Mid-term survey of vocational education.

Some time ago, the Second Chamber received the first mid-term survey of vocational education. In the second mid-term survey, modernisation of the educational process and pedagogy for vocational education and training will be emphasised. A central point will be how to learn competencies in educational and working processes.

## 3 Strengthening the relation between education and business and industry

The SER (Social and Economic Council, a very important advisor to government) has produced two major recommendations concerning aspects of the relation between education and companies. The titles are: *Het nieuwe leren* (The New learning (2002a)) and *Koersen op Innovatie* (Steering a course for innovation in vocational education (2002b)). One of the issues for the future is the separation in the skill-formation system between initial and post-initial learning routes in the light of lifelong learning and employability.

## 4 Social entrepreneurship, deregulation and output steering

One of the central policy starting points is to give more room to institutions such as social enterprises to formulate their own mission and how this social entrepreneurship can be developed. Deregulation means less centralised regulation. Questions arise regarding what kind of regulation is needed to realise the new responsibility of the central administration. One possibility is output or performance steering, and this poses the question of what the output or performance of educational and skilling systems are.

## 5 Open system

Educational institutions can be funded publicly or privately. To be recognised, both types of institutions have to meet quality standards and criteria. The government intends to examine the question of whether competition between these institutions would lead to higher quality and a stronger position for the student. The government also intends to examine the possibility of opening the publicly funded sector for new admissions. This is called an open system. One difficulty is that private institutions can restrict the accessibility of the study programme to more successful students. Moreover, they can ask a high admission fee, so that students from poor families cannot afford the study programme. There is thus a risk that private institutions will offer profitable study programmes, one of the consequences of which could be that small, less profitable ones would disappear.

## References

- Blokhuis, F. & Visser, K. (2002). *Jaarboek Kwalificatiestructuur 2002* (Yearbook Qualification Structure 2002). 's-Hertogenbosch: CINOP.
- Blokhuis, F., Jellema, M. & Nijhof, W.J. (2002). *De kwaliteit van de beroepspraktijkvorming* (The Quality of work-based learning). Een onderzoek naar ervaringen en praktijken in de Beroepspraktijkvorming. Enschede: Leerstoel CBB.
- Colo (2003). *E-nieuws Kwalificatiestructuur* (E-news Qualification structure). Nummer 2, 15 februari 2003. Zoetermeer: Colo.
- Edquist, C. (1997). *Systems of Innovation. Technologies, institutions and organisations*. London: Pinter.
- Esch, W. van & Neuvel, J. (2003). *Monitor Impulse arrangement VET column 2001: final report*. 's-Hertogenbosch: CINOP.

- Kuijpers, M. (2003). *Loopbaanontwikkeling. Onderzoek naar 'competenties'*, dissertatie. Enschede: University of Twente.
- Ministerie van OCenW (2003). *Koers BVE. Brief van de Staatssecretaris over doel en agenda Koers BVE 2*.
- Ministerie van OCenW (2003a). *Jaarverslag 2002 van het Ministerie van Onderwijs, Cultuur en Wetenschappen (VIII), aangeboden 21 mei 2003* (Annual report 2002 of the Ministry of Education, Culture and Science).
- Nieuwenhuis, L.F. M. (2002). Learning organisations for VET. In: Nijhof, W.J., A. Heikkinen & Nieuwenhuis, L.F.M. (eds.). *Shaping Flexibility in Vocational Education and Training*, pp. 35-53. Dordrecht: Kluwer Academic Publishers.
- Procesmanagement (2003). *Implementatie competentiegerichte kwalificatiestructuur* (Implementation competency-based qualification structure). Voortgangsrapportage en voorstellen voor het vervolg.
- SER (2002a). *Het nieuwe leren: Advies over een leven lang leren in de kenniseconomie* (The New Learning: Advisory report on lifelong learning in the knowledge-based economy). 's-Gravenhage: SER (Social and economic council).
- SER (2002b). *Koersen op vernieuwing* (Steering a course for innovation in vocational education). 's-Gravenhage: SER.
- Toolsema, B. (2003). *Werken met Competenties. Naar een identificatie van competenties voor werk*, dissertatie. Enschede: University of Twente.



# 16 Paradoxes, Pitfalls and the Prospects for a Dynamic VET System

EWART KEEP & ALAN BROWN

*The key focus of this volume is the attempt by a national government to undertake an interim evaluation of a major attempt at just such a reform of a national VET system. The chapters that make up this book therefore seek to take stock of both a new systems architecture and also the functioning of different individual elements within that system. Such a broadly-based evaluative overview of a reform process and its outcomes is relatively rare, and the systemic approach adopted is valuable because it provides pointers towards the often highly complex series of interactions that occur within VET systems between the different stakeholders, particular institutional configurations and patterns of participation, and the regulatory framework within which these interactions, adjustments, and exchanges of information take place. Most national VET systems in Europe have witnessed significant reform over the last decade. In some cases, such as Germany, the change has tended to be evolutionary in nature. At the other end of the continuum, the pace and scale of reforms in England might best be characterised as revolutionary. The Dutch case appears to fall roughly in the middle of this spectrum.*

## 16.1 Introduction

The vocational education and training (VET) systems in most developed countries face a common set of major issues. These include:

- Creation and maintenance of transparent, comprehensible qualifications structures that can accommodate a wide variety of different (and sometimes competing) demands – from individuals, employers and other bodies; and for immediate job-readiness, wider capacities to sustain lifelong learning, and practical and theoretical competencies and understanding.
- Structuring initial VET in a manner that allows it to provide a smooth transition between education and work, while also providing a wider platform for learning throughout adult life.
- Delivering learning that can support both social inclusion and better economic outcomes.
- Resolving the balance of responsibility between the education system and employers for different types of VET provision and different sorts of learning.
- Designing a systems architecture that is easy to understand, transparent, flexible and accountable.
- Building progression routes through the VET system that can accommodate changing patterns of demand and radical shifts in individuals' career pathways.

- Resolving the degree to which the outputs of the VET system can and should be geared to labour market forecasting and modelling.
- Dealing with client groups such as the socially disadvantaged, older workers (especially the more poorly qualified), migrant and immigrant labour, and those with special learning needs.
- Balancing the interests of different stakeholder groups in an environment where funding is tight and everyone is being asked to do more for less.

Most national VET systems in Europe have witnessed significant reform over the last decade. In some cases, such as Germany, the change has tended to be evolutionary in nature. At the other end of the continuum, the pace and scale of reforms in England might best be characterised as revolutionary. The Dutch case appears to fall roughly in the middle of this spectrum.

What such activity reflects is a search by policy makers and other interest groups for resolutions to the issues and problems listed above. The fact that in many countries the reforms are still ongoing suggests that simple, universal solutions are often extremely illusive (perhaps illusory). Everyone appears to desire the development of national (and European-wide) systems of VET that are dynamic, accountable, flexible, transparent, cost-effective, and which balance the interests of the individual, employers and the state and wider society. The problem comes in designing a system that can achieve such goals without imposing demands on the various actors within the system that are impossible to meet.

## 16.2 Evaluating the Dutch Reforms – Questions of Process

The key focus of this volume is the attempt by a national government to undertake an interim evaluation of a major attempt at just such a reform of a national VET system. The chapters that make up this book therefore seek to take stock of both a new systems architecture and also the functioning of different individual elements within that system. Such a broadly-based evaluative overview of a reform process and its outcomes is relatively rare, and the systemic approach adopted is valuable because it provides pointers towards the often highly complex series of interactions that occur within VET systems between the different stakeholders, particular institutional configurations and patterns of participation, and the regulatory framework within which these interactions, adjustments, and exchanges of information take place.

Another novelty is the formalisation of the evaluation process. The integration of a requirement to undertake such an evaluation within the legislation that ushered in the reform is an interesting approach, particularly to English eyes, and suggests a clarity of purpose and a level of boldness that would be difficult to contemplate within the English political and legislative system. Evaluation within our system tends to be rather more ad hoc, piecemeal and far more closely circumscribed in its lines of inquiry by central government than appears to have been the case in the Netherlands. The idea of turning over the over-arching evaluation of a key government reform of the public services (in this case VET) to an independent commission would probably be regarded as risky at best, and foolhardy at worst, by English civil servants. One of the central requirements of evaluation in the English system is that its remit can be limited – thereby ensuring that politically sensitive issues are sidelined, and the dissemination of its results controlled by those who originally commissioned the work. These



comments notwithstanding, Polder's suggestion (chapter 3) that the Dutch evaluation process serves as an interesting example to other countries about how to engage in systematic evaluation of wide-ranging reform is true. Whether other countries will have the political will and courage to follow this example will be interesting to see.

As a number of the contributors to the volume underline, one of the biggest difficulties with attempting to identify and gauge the effects of a wide-ranging, complex, interactive set of reforms (of institutions, qualification structures, certification systems and methods of funding), is that of timing. Changes of the type being attempted in the Netherlands are, perforce, liable to take time to be fully implemented, and for the system to bed down. Until this has happened, and the timeframe for such a process might be a decade or more, all judgements must remain provisional and interim.

The other issue (highlighted in chapter 15) concerns the key question of by what performance indicators or measures a VET system is best regulated and managed. As Van Esch notes, "this poses the question what the output or performance of education and skilling systems are". This question is an important and exceedingly complex one, and the source of a great deal of misunderstanding both within the theory and practice of VET.

There is a strong tendency by both researchers and practitioners within the field of VET to view the outputs or outcomes of VET – usually measured via qualifications gained or participation in some form of VET activity – as an end point in themselves. However, they are not outcomes or outputs in an economic sense, they are simply inputs into the productive process, alongside a range of other inputs, capital, plant, ancillary support services (transport infrastructure), research and development, etc. Skills, on their own and without being used, add no value whatsoever, they only have an effect, and become an output, when exercised within a productive context – the workplace. More highly qualified people being churned out of the education system only matter if the labour market and the workplaces into which they go can deploy these skills in productive ways. Thus, unless the evaluation and management of VET are linked to wider economic goals and processes, they may have limited utility. Rather than seeing the production of ever more qualified cohorts of new workers as the end of the process, it might be better to see it as merely one stage in seeking to achieve a high skills, high value added vision.

This raises the issue of the degree to which evaluation of VET needs to look beyond the processes of skill creation and learning. Plainly it is important to know whether a VET system is producing the levels of learning (measured in terms of both quality and quantity) that is being expected of it, but it also seems important to investigate how and to what effect these skills are then being used within the labour market and the economy, and perhaps how effectively they are interacting with other elements and inputs to production – for example, R&D and innovation. This much broader picture plainly raises the stakes for evaluators and those who commission such work, not least in terms of the need for much wider data gathering and analysis, the multi-disciplinarity of the research teams engaged in the process, and the associated costs of attempting this much more demanding approach.

The other question raised by the prospect of any such broader approach to evaluation is the tremendous difficulty of separating out the impact of human capital inputs on production from all the other myriad factors that are simultaneously affecting the performance of firms, sectors, and regional and national economies. Even with very detailed longitudinal data it is very difficult to assign relative

weights to factors as diverse as investment in R&D and plant, the adoption of innovation, changes in work organisation and job design, the interaction between skills and different forms of employee relations systems (and their impact on motivation and commitment), interest and exchange rate fluctuations, changing patterns of consumer demand, and the impact of the economic cycle (Keep, Mayhew and Corney, 2002). Nor is the direction of causality easy to prove. As a result, the range of studies that try to determine the influence of increased levels of skill on company performance is limited, and their findings open to challenge. As Keep, Mayhew and Corney note, “taken together, what is available in the UK does not yet amount to a body of evidence upon which ‘evidence-based’ policy can easily be founded, or which would necessarily convince a sceptical employer to change their investment patterns” (2002:3). This is an area of work upon which the VET research community across Europe will almost certainly be required to expend a great deal more time and effort over the coming decade.

Given the interim nature of the evaluations being reported in this volume, it would of course be unrealistic to expect that a full-blown attempt at this wider type of economic impact evaluation could be assayed. Leaving aside the huge data collection demands this would have imposed, the reforms and their outputs, in terms of successive cohorts of students who have successfully passed through the new system, have not existed for long enough to make an impact within the productive system(s). Chapters 5 (Borghans and Heijke) and 11 (Van der Velden and Wolbers) do, however, lay down markers for the broader investigations that may at some point in the future be needed in order to begin to estimate the longer-term impacts and benefits of the reforms within the Dutch economy.

### 16.3 Planning Systemic Change

Perhaps the key point that emerges from the overview of the Dutch VET reforms offered in this volume is the fact that there was a clear and explicit attempt to plan the reforms systemically and to try to design a new system as a whole, rather than engage in a sequence of changes to isolated elements of the system, as has tended to be the case in England over the last decade or more. Taking the operation of the system as a whole and seeking to develop a new systems architecture is a bold approach and one that has many risks. Reform of single institutions carries with it the comfort for policy makers of knowing that were anything to go awry, the rest of the system would still be there and probably able to take measures to counteract the problems. However, incremental attempts at institutional reform have their own downside – the general inability to remodel the way in which the new institution will interact with the remaining (and unreformed) portion of the VET system. It is thus an approach that is inherently incapable of seeing the system as a whole and seeking to revise the systems architecture in any fundamental fashion.

As Nijhof (chapter 2) makes clear, the gestation of the Dutch reforms goes back a long way, and the changes that ultimately resulted were the end point of an elaborate and lengthy process of inquiry, opinion sounding and forming, and design testing. The reflexive nature of the process and the efforts taken to incorporate the views of a wide range of actors and of the findings of research suggest a level of deliberative design that is relatively rare.

## 16.4 Problems and Issues

A range of problems and issues emerge from the evaluation of the reform process. Many of these are ones that are potentially common across all VET systems within the developed world.

### **WHO ARE THE CLIENTS?**

The first is the nature of the clients of the VET system. Van Esch (chapter 15) remarks that, “quality needs to be directed by the needs of the clients”. The problem is that the needs of the different clients may not coincide and may even conflict. There is a tendency, particularly among educationalists, to make the implicit assumption that the prime client, customer or consumer is the individual student. However, other stakeholders may well make different assumptions, and see employers, or society at large, as the consumers.

Each of these groups has potentially divergent interests (see, for example, Polder in chapter 3). For example, society (as represented by the state) may wish to see a close matching of demand for skills with supply, and in the course of tailoring the number of student places in particular subjects, reduce the choice that is available to potential students. Employers may make decisions about investment in skills that, in the short to medium term, are economically rational when judged at the level of the individual enterprise, but in the long run would prove sub-optimal to the economy as a whole and thereby to society at large. Individuals may well want courses of study, curricula and systems of certification that provide for a broad range of transferable skills in order to support mobility, progression and employability. Employers may want a narrower focus to VET that provides skills that are specific to particular narrow sectors of the economy, or types of production regime and technology, and which are therefore less transferable.

Building in mechanisms for resolving the potential conflicts between the different stakeholders is a key consideration in the design of VET systems and institutions. In this respect the Dutch system appears to place a heavy emphasis upon methods of planning and co-ordination that utilise social partnership as a means of trying to represent the views of individuals (and their representatives) and employers in a systematic fashion. This in turn reflects a wider national model of bargaining and social partnership that places a heavy emphasis upon achieving national consensus about policy directions, cost sharing and the rights, responsibilities and duties of the various parties involved in delivering VET. This approach contrasts very markedly with the hitherto almost total absence of any form of meaningful social partnership arrangements within the English VET system since the mid-1980s.

### **QUALIFICATIONS UNDER PRESSURE**

One of the issues that emerges very clearly from chapters 4, 5, 10 and 15 is the degree of pressure that the qualifications system generally, and the certification process more specifically, are under. The desire for breadth, transferability and hence a relatively small number of qualifications, qualification profiles and lead bodies runs up against the problems of producing qualifications over which employers will feel some sense of ownership, and which accord, however approximately, with discrete bodies of knowledge, theory and practice in particular (sometimes quite narrow) industrial sectors, sub-sectors, and occupations. This tension is an eternal one within VET systems and compromises agreed at one juncture may be subject to rapid decay in the face of changes in the wider economy, labour markets or occupational groupings.

As chapter 1 underlines, the national qualifications structure in the Netherlands assumed a pivotal role within the VET reforms as a means of improving articulation between education processes and outputs and the needs of the labour market. For this role to be performed adequately, a prerequisite is a strong collective employer 'voice' at occupational or sectoral/industry levels that is able to secure consistent inputs into qualification design from employers. Securing this type of input in the UK has proved profoundly difficult to achieve, not least because of the weakness of sectoral employer organisations. This in turn partly reflects the contrasting realities of the collective bargaining arrangements that exist in the two countries. In the Netherlands, sectoral multi-employer bargaining at industry level has persisted, whereas in the UK it has all but completely collapsed and fragmented with the consequence that sectoral employer bodies are usually very weak and under-resourced (Huddleston and Keep, 1999). This is an interesting example of the way in which wider societal configurations (in this case of collective bargaining structures) help delimit the potential configuration and operation of the national VET system.

Nevertheless, despite a more favourable institutional backdrop, it is clear from a number of the chapters in this volume that producing qualifications that can satisfy the demands of all the various parties, and ensure good matching between the outputs of the VET system and the immediate and long term needs of the labour market, remains a very challenging agenda for the Dutch system. One of the underlying causes may be the degree to which both productive systems and technologies are diverging, even within what were hitherto relatively cohesive sectors, sub-sectors and occupational groupings. Polarisation of product specification may, at least in part, underlie these fissures. McDonalds and a high class restaurant are both nominally in the same sector, yet what they produce, how they produce it, and the price they can expect to charge for their products, vary tremendously. The technologies, production routines, micro-level employee relations systems (e.g. work organisation, job design, task discretion), and associated skill levels, will all differ considerably. Can a qualification that meets the needs of one of these organisations also map well onto those of the other? Is there, in any sense that can be operationalised within VET institutions, a common core of occupational skills and identity that can be imparted that will meet the needs of both employers? The greater the degree of product market differentiation taking place, the greater the stress and tension that qualifications that serve the employers taking these divergent routes to competitive advantage may be under.

More generally, the range of expectations that certification systems are being required to meet is growing, while at the same time shifts in the meaning attached to skill are undermining the ability of formal qualifications to meet fully the needs of employers (Payne, 2000; Keep and Mayhew, 1999). Skill has always been, to a greater or lesser extent, a socially constructed phenomenon, but with the shift from manufacturing employment (where 'hard' technical skills have tended to predominate) towards a labour market where the majority of employment is within the service sector (where softer, interpersonal skills, personal attitudes and attributes may be more important), the concept of skill and what it is to be skilled have shifted and expanded. The problem, from the point of view of those charged with operating the VET system, is that many of the new, softer skills are difficult to assess objectively through traditional assessment procedures and therefore to certify. The danger therefore is that the proportion of skills (broadly defined) that certification systems can deal with dwindles and the role of certification in the recruitment and selection of workers also diminishes. Evidence from both the UK (Spilsbury and Lane, 2000; Miller, Acutt and Kellie, 2002) and the USA (Sandia Laboratories, 1993)

suggests that the weight accorded to formal qualifications within the recruitment process for new young workers is often very low.

It might be noted in passing that the aim outlined in chapter 15 of reducing the array of vocational qualifications from 800 to around 300 appears, from an English perspective, an heroic endeavour. England currently boasts thousands of vocational qualifications of one type or another (the exact number is unclear, even to government and the bodies that regulate the qualifications system), and is about to embark on yet another attempt to rationalise this 'qualifications jungle'. The success of such an exercise would be if it reduced numbers to just a few thousand!

#### **INITIAL VET AS AN ADEQUATE PLATFORM FOR LIFELONG LEARNING?**

The question, flagged up by Polder (chapter 14) of whether current models of initial VET provide an adequate platform for subsequent learning through life is one that is faced by all developed countries. The underlying problem, as contributors to this volume attest, is that there is a sharp tension between the desire for initial VET to be guided by design principles that afford primacy to its ability to ensure a rapid and relatively pain-free insertion into a particular first job within a well-defined occupation and/or industry, and the type of learning that might provide a broad platform for subsequent career change and progression. At one level this might not necessarily need to conflict – a course of study that could achieve both is entirely possible, but it would tend to be lengthier and therefore more expensive, and as Polder underlines, the current tendency is for the cheaper option of “just in time and just enough skilling”. Nijhof’s suggestion (chapter 2) of using basic skills and key qualifications as a lever to prise greater breadth and depth of learning out of the system is a useful starting point for debates about how to counteract the desire for narrow, short-term relevance.

#### **UPGRADING VET PROFESSIONALS TO SUPPORT CHANGE**

Another general theme that can be traced through a number of the contributions is the need for reform of the VET system to be supported by adequate systems of staff development, training and continuing professional development among the guidance practitioners, teachers, instructors and administrators upon whose skills the successful operation of the reforms ultimately rests. Experience in England of successive waves of reform within, for example, the school curriculum and examination system, has demonstrated the tendency by policy makers and those who design reform interventions to underplay the time, energy and resources that will be required to equip the relevant staff within the education system with the skills needed to deliver the intended change. Innovation, as Van Esch correctly observes in his chapter, is dependent upon teachers and trainers, and the centrality of their professionalism will become more rather than less important within a system that is seeking to devolve responsibility to individual institutions.

#### **FUNDING SYSTEMS**

In reading a volume as such as this, one of the most interesting aspects for the outside observer is to try and spot those topics that would almost invariably figure in their own domestic debates about VET but which are either wholly absent or figure much less prominently here. A good example is funding systems. A great deal of the VET reform in the UK has revolved around the search for a perfect funding system that would deliver efficiency, equity (not least between different routes within VET provision), transparency, and simple accountability, as well as ensure large scale cost savings or ‘efficiency gains’. In many senses, funding systems have come to act as a substitute for good governance of the VET system.

The result, on the whole, has been the evolution of funding regimes that are extremely complex, often somewhat opaque in their mode of operation – even to those who designed them – and with a heavy tendency to generate unforeseen and frequently perverse incentives for actors within the VET system. It is also the case, as chapter 13 (Van Ingen) makes clear, that the more ambitious the aims for the funding system the more this creates demands for significantly more complex forms of management information and the systems to handle this. In particular, a common thread in both UK and Dutch discussions, is the need to be able to track individual students through the system.

#### **CAREFUL PLANNING LEADING TO OVER-STRUCTURING?**

Nijhof outlined in chapter 2 the processes involved in the planning, development and implementation of the new Dutch system. The careful review and debate about possible alternative approaches as a prelude to action seemed well-suited to the task of reshaping the VET system. The system though will evolve over time and, in this respect, it will be interesting to see whether central steering continues to hold sway or whether, for example, the community colleges will achieve greater autonomy as a means of solving some of the problems outlined by Karstanje and Van de Venne (chapter 12). Certainly, experience of curricular over-prescription in the implementation of the National Curriculum in England in the past would lend weight to the arguments of De Bruijn and colleagues (chapter 6) that pedagogical flexibility to support individual career development is desirable but unlikely to be achieved in practice, while the emphasis is upon central steering with little room for the professional judgement of practitioners. This leads towards a fundamental question of whether the careful planning of the reforms has led to an over-structuring of attempts to promote learning, skill development and knowledge transformation?

The careful planning of systemic changes, though laudable in so many respects, carries with it the almost inevitable concentration upon major systemic features and a feeling that ‘everything must be contained within the system’. This can be seen in Nijhof’s conclusion to chapter 2 that ‘adult education and vocational education and training have acquired a web-like organisation and an intriguing task: the promotion of the knowledge economy through qualifications.’ Similarly, Geerligs arguments in chapter 7 for greater efficiency and monitoring of ‘qualification gain’ runs the risk of encouraging neglect of the broader picture in pursuit of narrower ‘within system’ goals. The danger is that these attempts at comprehensiveness creates problems in that they elevate the education and training system and the qualifications structure to twin monoliths that draw attention away from other forms of learning and development.

In this respect, it may be salutary to highlight a couple of examples drawn from English experience where significant work-related learning occurred with little interaction with either the education and training system or the qualifications structure. In the first case, Mason and Wagner (2000) show that high levels of labour market mobility and informal processes of knowledge transfer lead to innovation and dynamic performance in newer high-technology industries in the UK compared to their German counterparts. The superior economic performance of German companies in traditional manufacturing sectors, such as engineering and chemicals, are built upon formal structures and institutional support, but these appear less suitable for high technology industries. Mason and Wagner (2000) argue that the high degree of individual mobility of highly-qualified scientists and engineers in the UK helps to spread tacit knowledge and experience and to develop collaborative research links between enterprises.

In a highly dynamic environment, the exercise of responsibility at work, the experience of changing contexts and working with others on challenging tasks all lead to significant non-formal learning. Getting young graduates quickly into the labour market, and moving them through a succession of jobs early in their career, means they are likely to be more mobile, flexible and experienced than those following a lengthier period of initial training and service with a single company. The driver of the first system (the UK model) is learning through work, whereas the driver of the second (the German model) is preparation for work. Both systems have comparative strengths in some contexts and comparative weaknesses in other contexts. However, what is of particular interest here is that, in the UK, performance in the high technology sector was being principally driven by processes of learning and knowledge development that were almost completely outside the formal education and training system and the qualifications structure.

The second example related to attempts to stimulate economic innovation in companies involved in supply chain networks through innovative learning (Brown, Rhodes and Carter, 2004). The approach centred on the development of learning networks that were process oriented, comprising workplace teams of operators, engineers and managers, that linked up to eight suppliers to a major supplier or manufacturer. The learning involved participation in production process improvement reviews and implementation, workshops with Master Engineers and group discussions. Again this took place largely outside the formal education and training system, but this time educational providers offered participants the opportunity to use the substantive learning that they had demonstrated in order to acquire formal qualifications. Most employees turned down the opportunity: for although they had acquired important new skills and competencies recognition of that by themselves, their peers and sometimes their employer was sufficient.

It might be argued that much collaborative, developmental and self-directed learning has always occurred at work. However, the significance of the above examples is that both these were addressing the crucial issue of knowledge combination. It is the combining of new explicit knowledge with existing information and knowledge, some of which may be tacit, that is a key stage in the processes of knowledge creation, development and transformation within organisations (Nonaka and Takeuchi, 1995). Such modes of learning and development are emblematic of rather than incidental to the development of a knowledge-based economy. Such processes can be supported, even if they often lie, by their very nature, outside formal systems and structures.

At a structural level, therefore, maybe colleges could have a role in facilitating learning that is outside the remit of either the formal education and training system or the qualifications structure. While at an individual level, in order to promote engagement with lifelong learning it may be useful to consider the provision of access to a guidance process that can encourage personal development that may or may not link to either the education and training system or the qualifications structure. Perhaps promoting moves towards a knowledge economy requires the education and training system to acknowledge that qualifications should be only one of a number of ways of supporting progress towards that goal.

#### **SUPPORTING LEARNING IN THE WORKPLACE**

This argument about the importance of access to guidance is given greater force by the revelations of Frietman in chapter 9 that one side-effect of the new law on VET is that expertise around work-based

learning counselling that was previously provided by lead bodies has disappeared. Some regional centres are giving priority to the development of staff able to offer counselling support and some employees are being trained as coaches in order to give learning support to apprentices in the workplace. The new dual approach, rather than the previous tri-partite arrangement, is partly dependent upon the quality of the liaison between college-based counsellors and workplace coaches. Such a relationship comes under pressure when training places are in short supply and when the college uses teaching staff, who are fitting counselling in with a range of other duties, rather than specialist counselling staff. Frietman is adamant that the evidence as to what constitutes good practice in this area is unequivocal: clear college senior management support for and a commitment to realise effective procedures for workplace counselling. Probably no college disputes this: what they do dispute is whether they have been adequately funded to provide counselling for and support coaching of learning in the workplace of apprentices.

### WHERE NEXT?

The arguments made above stress the need for greater efforts to support learning that takes place outside the college, particularly in the workplace. This may still be within the formal education and training system, as when apprentices are given greater support for their work-related learning. However, the much greater challenge is how to support the myriad other forms of learning that take place outside the formal system, for example, learning while working. These arguments resonate with the position adopted by Nieuwenhuis and colleagues in chapter 8 that the new law essentially represents a high point in the alignment of the vocational education and training with traditional skill formation requirements. It does not, however, align well with the requirements of a knowledge-based economy. This need not necessarily be quite as serious as it sounds as the jury is still out as to how many of the population the knowledge-based economy will cover if and when it does arrive (Lloyd and Payne, 2002; Keep 2003). What is clear is that a debate about the implications of moves towards a knowledge-based economy and how to support commitments to lifelong learning need to range much more widely than a consideration of VET and qualifications. On the other hand, while arguing for the need for a more radical restructuring, it is still possible to suggest improvements to the current system – that after all was one of the key tasks of the evaluation and that will be the task of Van Esch in the concluding chapter.

### References

- Brown, A., Rhodes, E. & Carter, R. (2004). 'Supporting learning in advanced supply systems in the automotive and aerospace industries'. In: Fuller, A., Munro, A. & Rainbird, H. (ed.). *Workplace Learning in Context*. London: Routledge.
- Huddleston, P. & Keep, E. (1999). 'What do employers want from education? – a question more easily asked than answered'. In: Cramphorn, J. (ed.). *The Role of Partnerships in Economic Regeneration and Development – International Perspectives*, 38-49. Coventry: University of Warwick/Centre for Education and Industry.
- Keep, E. (2003). *Too true to be good – some thoughts on the @High Skills Vision' and where policy is really taking us*, SKOPE Research Report, Coventry: University of Warwick, SKOPE.
- Keep, E. & Mayhew, K. (1999). 'The Assessment: Knowledge, Skills and Competitiveness', *Oxford Review of Economic Policy*, Vol. 15, No. 1, 1-15.



- Keep, E., Mayhew, K. & Corney, M. (2002). *Review of the evidence on the rate of return to employers of investment in training and employer training measures*, SKOPE Research Report. Coventry: University of Warwick, SKOPE.
- Lloyd, C. & Payne, J. (2002). *In search of the high skills society: some reflections on current visions*, SKOPE Research Report, Coventry: University of Warwick, SKOPE.
- Mason, G. & Wagner, K. (2000). *High-level skills, knowledge transfer and industrial performance: electronics in Britain and Germany*. York: Anglo-German Foundation.
- Miller, L., Acutt, B. & Kellie, D. (2002). 'Minimum and preferred entry qualifications and training provision for British workers', *International Journal of Training and Development*, Vol. 6, No. 3, 163-182.
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge Creating Company. How Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.
- Payne, J. (2000). 'The unbearable lightness of skill: the changing meaning of skill in UK policy discourse and some implications for education and training', *Journal of Education Policy*, Vol. 15, No. 3, 353-369.
- Sandia Laboratories (1993). 'Perspectives on Education in America', *Journal of Education Research*, Vol. 86, No. 5, pp. 259-310.
- Splisbury, M. & Lane, K. (2000). 'Skill Needs and Recruitment Practices in Central London'. London: FOCUS Central London.



# Glossary

<b>ACO</b>	Advisory Committee for Study Programmes in Higher Education
<b>ACOA</b>	Advisory Body Education-Labour Market
<b>AOC</b>	Agricultural Training Centre
<b>APL</b>	Assessment of Prior Learning
<b>BBL</b>	Work-based pathway
<b>BIBB</b>	Bundesinstitut für Berufsbildung (Germany)
<b>BOL</b>	School-based pathway
<b>BVE</b>	Adult and Vocational Education
<b>Bve Raad</b>	Adult and Vocational Education Council
<b>CBS</b>	Central Bureau of Statistics
<b>CEDEFOP</b>	European Centre for the Development of Vocational Training (Greece)
<b>CINOP</b>	Centre for the Innovation of Training and Education
<b>COB</b>	Education-Business Committee
<b>COLO</b>	Office of the National Vocation Education Bodies and Umbrella organisation for all the LOBs (now KBBs)
<b>Commissie EVK</b>	Committee for the Recognition of Acquired Competencies
<b>CREBO</b>	Central Register of Vocational Qualifications
<b>CWL</b>	Contact group for Work-based Learning
<b>EB Kamer</b>	Adult and Vocational Education Board
<b>GNVQ</b>	General National Vocational Qualification (in England)
<b>HAVO</b>	Upper Secondary General Education
<b>HBO</b>	Higher Professional Education
<b>IIT</b>	Integral Institute Inspection
<b>INSP</b>	Information Science Incentives Plan (1984-1988)
<b>IOO</b>	Institute for Research on Public Expenditure
<b>IPC</b>	Innovation and Practice Centre
<b>IRDAC</b>	International Research and Development Advisory Committee
<b>ISS</b>	Individual Study System
<b>KBB</b>	Knowledge centre for Vocational Education-Labour Market
<b>KCE</b>	Quality Centre for Examinations in VET
<b>KMBO</b>	Short Full-time MBO
<b>KSE</b>	Qualification Structure for Adult Education
<b>LBO</b>	Lower Secondary Vocational Education
<b>LLW</b>	Dual system
<b>LNV</b>	Ministry of Agriculture
<b>LOB</b>	Lead body for vocational education (now called KBB)
<b>MBO</b>	Upper Secondary Vocational Education
<b>MBO(A)</b>	Agricultural MBO

<b>MBO(C)</b>	Commercial MBO
<b>MBO(T)</b>	Technical MBO
<b>Ministerie LNV</b>	Ministry of Agriculture
<b>Ministerie OCW</b>	Ministry of Education
<b>MOW</b>	Ministry of Education
<b>NQF</b>	National Qualifications Framework (in England)
<b>NTO</b>	National Training Organisation (in England)
<b>NVQ</b>	National Vocational Qualification (in England)
<b>O+S</b>	Orientation and Linking
<b>ODC</b>	Overview of all Diplomas and Certificates
<b>OER</b>	Regulations for Education and Examination
<b>OOVO</b>	Platform for General Education
<b>PAEPON</b>	Platform of Accredited Private Educational Institutions
<b>QCA</b>	Qualifications and Curriculum Authority (in England)
<b>ROA</b>	Research Centre for Education and the Labour Market
<b>ROC</b>	Community college
<b>SEDOC</b>	Système Européen de diffusion des offres et der demandes d'emploi en compensation internationale (European system of demand and supply in terms of competences and international levels)
<b>SER</b>	Social and Economic Council
<b>SLO</b>	Institute for Curriculum Development
<b>SVM</b>	Innovation project in secondary vocational education focussing on innovation modularisation, and sectorial merges
<b>VAVO</b>	Adult General Secondary Education
<b>VMBO</b>	Pre-vocational Secondary Education
<b>VNG</b>	Association of Dutch Municipalities
<b>VOA</b>	Preparatory and Support Activities
<b>VWO</b>	Pre-university Education
<b>WCBO</b>	Commercial Training Act
<b>WEB</b>	Adult & Vocational Education Act
<b>WGR gebieden</b>	Intermunicipal Cooperation Areas
<b>WIN</b>	Settlement of Newcomers Act
<b>WO</b>	University Education
<b>WVO</b>	General Secondary Education Act