Definition and Selection of Competencies

Dominique S. Rychen and Laura H. Salganik (Editors) on behalf of the OECD

Definition and Selection of Competencies

Theoretical and Conceptual Foundations



Hogrefe & Huber Publishers Seattle · Toronto · Bern · Göttingen

Library of Congress Cataloging-in-Publication Data

Definition and selection of competencies—Theoretical and conceptual foundations / Dominique S. Rychen, Laura H. Salganik, editors.

p. cm.

Includes bibliographical references.

ISBN 0-88937-248-9

1. Life skills. I. Rychen, Dominique Simone. II. Salganik, Laura H.

HO2037.D44

2001

646.7—dc21

2001024626

National Library of Canada Cataloguing in Publication Data

Main entry under title:

Definition and selection of competencies—Theoretical and conceptual foundations

"Produced under the auspices of the OECD." Includes bibliographical references. ISBN 0-88937-248-9

1. Core competencies. 2. Psychology, Industrial. I. Rychen, Dominique S. II. Salganik, Laura H. III. Organisation for Economic Co-operation and Development.

HF5548.8.D43

2001

158.7

C2001-930375-0

© 2001 by Hogrefe & Huber Publishers

USA: P.O. Box 2487, Kirkland, WA 98083-2487

Phone (425) 820-1500, Fax (425) 823-8324

CANADA: 12 Bruce Park Avenue, Toronto, Ontario M4P 2S3

Phone (416) 482-6339

SWITZERLAND: Länggass-Strasse 76, CH-3000 Bern 9

Phone (031) 300-4500, Fax (031) 300-4590

GERMANY: Rohnsweg 25, D-37085 Göttingen

Phone (0551) 49609-0, Fax (0551) 49609-88

No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without the written permission from the publisher.

Printed in Germany ISBN 0-88937-248-9

Foreword

In the face of social and economic change, education is undergoing far-reaching modernization, with the focus shifting from input-oriented policies to outcome-oriented ones. This inevitably places questions about the objectives of education on center stage. Tomorrow's curriculum has become a favorite subject of politicians' speeches and the core of everyday efforts geared to education reform. Furthermore, the question of assessing and measuring the output of educational processes triggers keen interest all over the globe.

Though literacy has been measured throughout OECD countries, and indeed, the world, we are still far from assessing a comprehensive set of competencies, particularly key competencies. One of the main reasons for this is that there is no general agreement as to precisely what competencies are, and furthermore, which are the ones that warrant being systematically tested. Thus, it is important for an overarching framework to be developed so that key competencies can be defined and selected based on transparent conceptual guidelines and according to accepted premises. The project *Definition and Selection of Competencies: Theoretical and Conceptual Foundations* (DeSeCo), under the auspices of the OECD, is led by the Swiss Federal Statistical Office in collaboration with the United States Department of Education, National Center for Education Statistics. Its goal is to conduct research that will help foster the development of the needed conceptual framework.

The contributions published in this volume represent the result of the scholarly work conducted during the first phase of the DeSeCo Project. They may appear rather heterogeneous initially, but a close reading reveals many shared preoccupations and suggestions regarding the task of defining and selecting key competencies most relevant to OECD countries. The discussions also shed light on a variety of related issues, such as what it means to lead a successful and responsible life; what the potential consequences of defining a set of more or less universal key competencies are on society; what assumptions underlie the definition of such a set of competencies; and most importantly perhaps, what does the concept of competence actually entail.

This book is an important step toward the DeSeCo Project's goals to strengthen the theoretical foundations for defining and selecting key competencies as well as to lay down guidelines for future development work for the assessment of key competencies in an international context. It does this by sounding out perspectives on competencies from different academic disciplines, as well as from various areas of policy and practice.

Because this book is comprised of essays written by different authors, from different backgrounds, it will appeal to a varied readership, including policy-makers, educators,

vi

economists, and politicians. We believe that it provides much food for thought and will enrich the debate about the topic of key competencies.

Finally, we would like to take this opportunity to thank the editors, Dominique Simone Rychen and Laura H. Salganik, for their efforts in pursuing this project and for bringing together these essays, which provide a valuable start toward defining and selecting key competencies.

Heinz Gilomen

ho 6 h....

Director

Society and Education Statistics

Swiss Federal Statistical Office

Mr Mastin

John P. Martin

Director

Education, Employment, Labour and Social Affairs

Organisation for Economic Co-operation and Development

Eugene Owen

Director

International Activities Program

National Center for Education Statistics, U.S. Department of Education

Contents

Foreword
Acknowledgments ix
Biographical Notes
Introduction
Competencies for Life
A Conceptual and Empirical Challenge
Defining and Selecting Competencies
Historical Reflections on the Case of IQ
Concept of Competence
A Conceptual Clarification
Competencies for the Good Life and the Good Society 67
Monique Canto-Sperber & Jean-Pierre Dupuy, France
Ambiguity, Autonomy, and Agency
Psychological Challenges to New Competence
The Key to Social Fields
Competencies of an Autonomous Actor (Or how to avoid being abused, alienated, dominated or exploited when one is neither rich or powerful) 121 Philippe Perrenoud, Switzerland

viii			Contents

Key Competencies Critical to Economic Success	151
Frank Levy & Richard J. Murnane, USA	
Competencies and Education	
Contextual Diversity	175
Scholarly Comments: Common Ground	191
Competencies as Working Epitemiologies – Ways We Want Adults to Know Robert Kegan, USA	192
Joining and Functioning in Groups, Self Concept and Emotion Management Cecilia Ridgeway, USA	205
Key Competencies from the Viewpoint of Practice and Policy	213
From Unity of Purpose to Diversity of Expression and Needs – A Perspective from UNESCO	214
Are All Key Competencies Measurable? An Education Perspective Bob Harris, Education International	222
The Knowledge Economy – A Business Perspective	228
Competency Management as an Investment – A Business Perspective Jean-Patrick Farrugia, France	232
Key Competencies for Whom? A Labor Perspective	236
Defining Educational Goals – A Window on the Future	241
Concluding Remarks	247
Dominique Simone Rychen, Switzerland; Laura H. Salganik, USA	

Acknowledgments

We would like to thank first and foremost Heinz Gilomen, of the Swiss Federal Statistical Office (SFSO), who as chair of the DeSeCo Steering Group is responsible for the project and contributed time and ideas toward the development of this book. Our thanks go to the SFSO and Carlo Malaguerra, its Director General, and to the OECD and John Martin, Director, and Tom Alexander, former Director of its Directorate for Education, Employment, Labour, and Social Affairs, for taking on the DeSeCo Project. We are also grateful to Eugene Owen, Director of the International Activities Program of the U. S. National Center for Education Statistics, for his ongoing commitment.

We would like to express our thanks to each of the authors in this volume and to the many others who have generously contributed ideas and support to the DeSeCo Project since its inception in 1997, in particular, Marilyn Binkley, Norberto Bottani, Helmut Fend, Walo Hutmacher, Barry McGaw, Scott Murray, Jules Peschar, George Psacharopoulos, Andreas Schleicher, Judith Torney-Purta, Albert Tujinman, and Leonardo José Vanella.

Our thanks go to all the individuals who assisted with the preparation of this book. We are grateful to Catherine Khordoc, who provided invaluable editorial support throughout the process, John Konstant, who assisted us with the research, and Céline Bourquin, of the Swiss Federal Statistical Office, who was responsible for the layout of the volume. We also thank Jennifer A. Anderson and Thomas Nachazel, of the Education Statistics Services Institute of the American Institutes for Research, for helping us to prepare the final manuscript.

Finally, we fondly remember our colleague Franz E. Weinert, who passed away on March 7, 2001, before the release of this book. His contribution to the DeSeCo Project is a seminal one, and we will miss having him as a colleague as we continue our work.

Biographical Notes

Carlo Callieri is the former Vice-Chairman of Confindustria in Rome and sits on the boards of several Italian firms. He published *Il lavoro possibile* with Bruno Trentin in 1997, and in the same year, *I lavoratori della conoscenza*. He has been involved in various aspects of business management with firms such as Fiat and the Gruppo Rizzoli, publisher of *Corriere della Sera*. He has also worked as a consultant for the Ministry of Labor in Italy dealing with issues relating to the cost of labor and wage negotiations.

Monique Canto-Sperber is Director of Research at the Center for National Research in Paris. She is the author of many essays on ancient philosophy and moral and political philosophy, including *La philosophie morale britannique* (1994), *Dictionnaire d'éthique et de philosophie morale* (Ed.) (1996, 3rd ed. 2001), *Philosophie grecque* (Ed.) (1997), *L'inquiétude morale et la vie humaine* (2001). She is currently focusing her research on the topic of common good within liberal traditions.

John Carson is assistant professor of history at the University of Michigan. His work focuses on the history of the human sciences, especially in the United States and Europe. His publications include "Minding Matter/Mattering Mind: Knowledge and the Subject in Nineteenth-Century Psychology," in *Studies in the History and Philosophy of the Biological and Biomedical Sciences* (1999) and "Army Alpha, Army Brass, and the Search for Army Intelligence," in *Isis* (1993). He is currently working on a book tentatively titled *Making Intelligence Matter: Cultural Constructions of Human Difference, 1750–1940*.

Jacques Delors was the French Minister for Economy and Finance from 1981 to 1983 and for Economy, Finance and Budget in 1983. From 1984 to 1985, he was the President of the Commission of the European Communities (now European Commission). He acted as Chairman of the UNESCO International Commission on Education for the Twenty-first Century from 1992 to 1996, and of its report, *Learning: The Treasure Within*. Since then, he has been President of the Research Group *Notre Europe*. He is the author of numerous publications on European economic and social matters and is the recipient of a number of international awards and honorary doctorates from more than twenty universities.

Alexandra Draxler has been working for UNESCO as an education specialist since 1971. From 1992 to 1996, she was Secretary of the International Commission on Edu-

cation for the Twenty-first Century, and since that time, she has been Director of the Task Force on Education for the Twenty-first Century. She is also responsible within UNESCO for the development of the use of information and communications technologies in education.

Jean-Pierre Dupuy is professor of social and political philosophy at the Ecole Polytechnique in Paris as well as visiting professor at Stanford University. He is also Director of Research at the C.N.R.S. (Centre National de Recherche Scientifique) in Philosophy as well as the Director of C.R.E.A. (Centre de Recherche en Epistémologie Appliquée), the philosophical research group of the Ecole Polytechnique, which he founded in 1982. His most recent publications include *The Mechanization of the Mind – On the Origins of Cognitive Science*, published in 2000 by Princeton University Press, and *Self-Deception and Paradoxes of Rationality*, published by Stanford University in 1998.

Jean-Patrick Farrugia was formerly with *Mouvement des Entreprises de France* (MEDEF), a French employers' association. He was involved with the division responsible for education and training.

Heinz Gilomen is the Director of Society and Education Statistics at the Swiss Federal Statistical Office and a member of its board of directors. He is responsible for statistics relating to education and science as well as for social reporting and social indicators. He is the National Coordinator for the OECD Education Indicators Programme in Switzerland and the lead person for the OECD project *Definition and Selection of Competencies: Theoretical and Conceptual Foundations* (DeSeCo).

Jack Goody is a Fellow of St. John's College at Cambridge University, and until his retirement, was professor of social anthropology at Cambridge. He worked for two years as a Further Education Officer in Hertfordshire and as an anthropologist in West Africa, North India, and Southern China. He has been especially interested in the consequences of literacy and has worked with the psychologist Michael Cote on social aspects of learning to read (see *The Domestication of the Savage Mind*, 1977, and *The Interface Between the Written and the Oral*, 1987). In Europe, he has written on the family, on inheritance, and on the supposed uniqueness of that continent with respect to modernization (*The East in the West*, 1996).

Bob Harris is Senior Consultant to the General Secretary of Education International in Geneva, and chairs the Working Group on Education, Training and Employment of TUAC (the Trade Union Advisory Committee to the OECD). In 1993, he was one of the founders of Education International, and served as Executive Director for Intergovernmental Relations and member of the Executive Board of Education International from 1993 to 1995. He has served as President of the Conference of Non-Governmental Organizations at the United Nations (1995–1998) and at UNESCO (1985–88). He was editor of *Teaching About Contemporary World Problems*, UNESCO, 1986.

Helen Haste is professor of psychology at the University of Bath, England. Her main research interests are in values and citizenship, gender, and in cultural metaphors and symbols, including the interface of science and culture. She is the author of *The Sexual Metaphor*, published in 1994 by Harvard University Press, and numerous scientific and popular articles.

Robert Kegan is the first William and Miriam Meehan Professor of Adult Learning and Professional Development at the Harvard University Graduate School of Education. Chairman of the Learning and Teaching Area, and Educational Chair of the Institute for Management and Leadership in Education, he is also Co-Director of a joint program undertaken by Harvard Medical School and the Harvard Graduate School of Education to bring principles of adult learning to the reform of medical education, and Co-Director of a Gates Foundation-funded program to assist the change efforts of school leaders. He has published several books, the most recent one, co-authored with Lisa Laskow Lahey, being *How the Way We Talk Can Change the Way We Work: Seven Languages for Transformation*.

Frank Levy is the Daniel Rose Professor of Urban Economics at M.I.T.'s Department of Urban Studies and Planning. He has written extensively on both trends in living standards and on education and the economy. His 1987 book, *Dollars and Dreams*, was updated in 1999 under the title *The New Dollars and Dreams*. With his colleague, Richard J. Murnane of the Harvard School of Education, Levy is the author of *Teaching the New Basic Skills*, published in 1996 by the Free Press. He is currently working with Murnane on a book entitled *What's Left for People to Do?* that describes how the computerization of work makes some human skills more important than others.

Richard J. Murnane is the Thompson Professor of Education and Society at Harvard University's Graduate School of Education. An economist who specializes in education issues, he has written extensively about how changes in the economy affect the education sector. Murnane's books include *The Impact of School Resources on the Learning of Inner City Children* (1975), *Who Will Teach: Policies That Matter* (1991), and, with his colleague, Frank Levy of MIT, *Teaching the New Basic Skills* (1996). Murnane is currently working with Levy on the book mentioned above, *What's Left for People to Do?*

Philippe Perrenoud is professor of sociology at the University of Geneva, focusing on the areas of curriculum research, pedagogical practices and teaching institutions. Through his work on inequalities and failure within education, he has become interested in topics such as the job of being a student, teacher training, policy-making in education and training, and the functioning of schools. He has published many scholarly articles and books, including *Enseigner: agir dans l'urgence, décider dans l'incertitude. Savoirs et compétences dans un métier complexe* (1996, reedited in 1999); *Construire des compétences dès l'école*, (1997, in 2000 was in its third edition), and *Dix nouvelles compétences pour enseigner. Invitation au voyage* (1999).

Cecilia Ridgeway is professor of sociology at Stanford University in California. Her research focuses on status and social hierarchies among individuals and the role of perceived competence in shaping social hierarchies. She also studies gender inequality. She is particularly interested in the role that social hierarchies in everyday social relations play in the larger processes of stratification and inequality in a society. She has published several articles in scholarly journals such as the *American Journal of Sociology* and the *American Sociological Review*. She is also the author of *Gender, Interaction, and Inequality* (Springer-Verlag, 1992) and the current editor of *Social Psychology Quarterly*.

Laurell Ritchie has worked in the labor movement for 30 years. In 1994, she became a National Representative with the Canadian Auto Workers (CAW), Canada's largest private sector union representing 240,000 workers, principally in the automotive and transportation sectors, but also in a variety of other sectors, from textiles to hotels. She works in CAW's Work Organization and Training Department where her responsibilities include sectoral training councils, adjustment and training programs for laid-off workers, and basic skills and literacy programs in the workplace. She was the workers' delegate for Canada to the 1997 ILO Tripartite Technical Meeting on New Technologies and Working Conditions in the Hotel, Catering & Tourism Sector in Geneva.

Dominique Simone Rychen is the Program Manager of the OECD project *Definition* and *Selection of Competencies: Theoretical and Conceptual Foundations* (DeSeCo). She has been responsible for the coordination of the various activities, the organization of the first international symposium, and the reporting of the interim findings to the OECD. Previously, she has worked on indicator development related to continuing education, labor market, workplace, and informal learning in particular, and co-authored two publications related to continuing education.

Laura Hersh Salganik is the Deputy Director of the Education Statistics Services Institute of the American Institutes for Research. Her areas of specialty include education indicators and international comparisons of education systems, and she has participated in numerous activities in the OECD Education Indicators Programme (INES) during the past ten years. She has been collaborating with the DeSeCo Project for the past three years. She is a co-author of *Education Indicators: An International Perspective*, published by the U. S. National Center for Education Statistics.

Uri Peter Trier is professor of psychology at the University of Neuchâtel (Switzerland). He was Director of the National Research Program *The Effectiveness of Swiss Educational Systems* (1993–1999), Chairman of the Pedagogical Commission of the Swiss Conference of Ministers of Education (1972–1986), and Director of the Department for Educational Research and Development of Zurich (1971–1992). His main interests are the development of schools and educational systems, cognition and learning, and psychoanalysis.

Franz E. Weinert was Director Emeritus of the Max Planck Institute for Psychological Research in Munich. From 1968 to 1981, he was professor and Director of the Psychological Institute at the University of Heidelberg. He served as President of the German Psychological Association, Vice-President of the German Science Foundation, and Vice-President of the Max Planck Society. He was engaged in research on cognitive development (changes and stabilities of individual differences) and on the relationships between learning and instruction. He received honorary doctorates from the Free University of Berlin and the University of Würzburg.