

Definition and Selection of Competencies: Theoretical and Conceptual Foundations (DeSeCo)

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Background

The OECD Program Definition and Selection of Competencies: Theoretical and Conceptual Foundations (DeSeCo) was initiated at the end of 1997 and managed by the Swiss Federal Statistical Office with support from the United States Department of Education, National Center for Education Statistics.

DeSeCo is part of OECD's effort within the framework of INES to continue work in the area of competencies and skills of the youth and adult population and to develop over time a coherent strategy for defining, selecting and measuring competencies and skills.

Context

The complexity of the demands generated by an increasingly interdependent, changing and conflictual world places the objectives of education and the strategies to achieve education goals in center stage of the debate on broad educational reform. In line with a growing concern about the adequacy and quality of education and training and the actual return on public educational expenditure, there has been since the mid-1980s an increased policy interest in comparable outcome indicators in the education field. In fact, measuring the quality of education outcomes, estimating economic and social returns to learning, and identifying key determinants to educational success is an ongoing discussion topic that stimulates keen interest around the world.

This interest in new information raises important questions about what is most needed. Beyond basic skills such as reading, writing, and calculating, what competencies are needed for the individual to lead an overall successful and responsible life and for contemporary society to face present and future challenges? What are the normative, theoretical, and conceptual foundations for defining and selecting a limited set of the most relevant competencies? These questions are the basis for an international and interdisciplinary endeavor conducted under the auspices of the Organisation for Economic Co-operation and Development (OECD) and led by the Swiss Federal Statistical Office (SFSO). This project entitled *Definition and Selection of Competencies: Theoretical and Conceptual Foundations* (DeSeCo) has been set up to develop research in the area of competencies.

Objectives

DeSeCo seeks in collaboration with ongoing OECD assessment programs, to analyze the theoretical foundation, the rationale of the definition and selection process of key competencies and their relationship to the social and economic environment. Further it aims to provide guidelines for future developmental work for the assessment of broad human competencies in an international context.

The main objectives of DeSeCo are:

- **To develop normative, theoretical, and conceptual foundations for defining and selecting key competencies.** The program seeks through an interdisciplinary scientific approach, within an international context, to develop a common, overarching theoretical framework for the identification of the competencies needed

for individuals to lead an overall successful and responsible life and for society to face the challenges of the present and the future. The construction of future measures in the form of relevant indicators should be based on a refined and solid, theory-based foundation.

- **To develop reference points for the development and understanding of future indicators of competencies and for the validation of education indicators, and to provide a basis for more accurate and appropriate interpretation of empirical results.** The work of the program will provide a resource for the process of defining and selecting key competencies, as well as for the development and understanding of future measures aimed at producing relevant indicators of skills and competencies. For this it is crucial to support an iterative process between conceptual and empirical work through close linkages with INES-related activities in the domain of competencies.
- **To respond, in the long term, to information needs of policymakers.** The DeSeCo Program is embedded in the long-term strategy of INES to develop a broad basis for international comparisons of education outcomes and to develop relevant and theoretically based criteria for the successful evaluation of education systems and learning outcomes more generally.

2001 Activities

DeSeCo publication release

Defining and Selecting Key Competencies, published in summer 2001 by Hogrefe & Huber, describes the rationale and main features of DeSeCo, as well as the challenges and issues at stake when defining and selecting key competencies. It contains perspectives on competencies from different academic disciplines and from various areas of policy and practice, and will serve as a primary source for ideas to guide and enrich the discussion and reflection on competencies planned for the February 2002 Symposium. Copies of the book may be obtained at <http://www.hhpub.com/catalogue/Rychen.html>.

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Country Contribution Process

A central issue of the DeSeCo Program is that the definition and selection of key competencies is largely a process of negotiation among various stakeholders. National input into the process is an important step if a consensus among countries concerning key competencies is to be reached. During 2001, the Country Contribution Process initiated in 2000 was conducted. A synthesis report was prepared by Uri Trier, which was disseminated in conjunction with preparations for the 2nd International Symposium.

The main objectives of the CCP were to identify in the national context competencies that are considered most relevant in and across various social fields, to understand the means or mechanisms by which the definition and selection of key or relevant competencies are arrived at in national-level initiatives, to provide information concerning DeSeCo-type country activities and perspectives, and to obtain feedback from the countries involved in the CCP on the relevance of the DeSeCo Program and findings in their view. Twelve countries (Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, New Zealand, Norway,

Sweden, Switzerland, and the US) prepared reports based on their national experiences with issues related to competencies. This material will be discussed at the 2nd International Symposium in Geneva, and is currently available on DeSeCo's Web page.
http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_country.htm

Consultation and Exploration of International DeSeCo-related Activities

In complement to the Country Contribution Process, DeSeCo sought to examine initiatives, programs and projects related to questions considered regarding competencies that either have been undertaken in recent years or that are currently being planned by international organizations other than the OECD. Organizations such as UNESCO and its Institute of Statistics, the World Bank, the European Commission, and the United Nations Development Programme were invited to provide information regarding their work on competencies and the issues that surround them. These ideas were presented in a panel at the 2nd International Symposium.

http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_country.htm

Additional Expert Papers

During 2001, DeSeCo commissioned and received three additional expert papers to complement and extend the examination of key competencies represented in the book and prior work of the project. The papers submitted include a description of the issue of competencies from an education research and human development perspective, an examination of competencies for participation in civic and political life in contemporary democratic societies, and a strategy paper intended to examine the topic of which methodologies are most appropriate for development work leading to key competency indicators that is rooted both in scientific theory and interpretable in policy terms.

http://www.statistik.admin.ch/stat_ch/ber15/desecco/expert_opinions_02012001.pdf

A perspective from education research

Daniel Keating, professor at the University of Toronto, provided a paper that discusses - on the basis of the relevant research literature in the field of education/education science - the various disciplinary contributions and the three generic key competencies proposed in the contribution to the OECD INES 4th General Assembly with regard to the overarching questions and objectives guiding the DeSeCo Program Based on existing theory and research in education, the paper addresses key competencies at the level of observable entities and thus goes beyond the abstract level of the sets of key competencies suggested by experts representing other disciplines.

Competencies for participation in civil society

In keeping with DeSeCo's commitment to an iterative process between theoretical work and empirical studies, this paper, prepared by Barbara Fratzak-Rudnicka, Warsaw University, and Judith Torney-Purta, University of Maryland reviews the conceptual basis for the competencies identified in the IEA Civics Education study in comparison to the approach to key competencies and the generic key competencies proposed in the DeSeCo contribution to the General Assembly.

Key competencies and challenges to their assessments

Tim Oates, from the Qualifications and Curriculum Authority in London, prepared a paper designed to identify the potential of DeSeCo's work for contributing to developing

internationally comparable indicators of key competencies for all within OECD's INES program. The paper is based on a reflection on DeSeCo's current work with regard to the overarching research questions and on the topic of which methodologies are most appropriate for development work leading to key competency indicators.

Teaching and learning of the key competencies

Andrew Gonzci, from the University of Technology in Sydney, submitted a paper, *Teaching and learning of the key competencies*, for the International symposium. He focused on the issues surrounding the learning and development of key competencies both within and outside the formal education system. The paper includes an analysis of both workplace learning and vocational and professional education (in formal institutions) and their implications for lifelong learning.

http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_symposium_gonczy_120202.pdf

Discussion Paper

To synthesize the work developed from the Country Contribution Process and expert papers commissioned during this and previous years, and taking into consideration the commentary of experts working in the field of competencies, DeSeCo prepared a Discussion Paper to present at the Symposium planned for February 2002. The paper outlines the major themes and theses developed from a synthesis of the work of DeSeCo since inception, delineates conceptual elements of key competencies and the issues that surround them, and includes a proposed framework for the definition and selection of key competencies and a description of the constellations into which key competencies may be situated.

http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_discpaper_jan15.pdf

2002 Activities

The 2nd International DeSeCo Symposium, 11-13 February 2002

Approximately 170 people attended the second International DeSeCo Symposium 11-13 February 2002 in Geneva.

http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_int02.htm

Topics of discussion for the Symposium included:

Key competencies in OECD countries--similarities and differences

Uri Peter Trier, University of Neuchatel, provided a presentation entitled *Countries' views on key competencies - some results and comments*

Key competencies and their relevance for human, social, and economic development beyond OECD

A panel discussion, moderated by Albert Tuijnman, Stockholm University, included Tom Griffin, United Nations Development Programme, John Morley, European Commission, CEC, Marit Granheim, World Bank, Denise Lievesley, UNESCO

Critical competencies in relevant social fields

Presentations included Key Competencies – from the perspective of ILO by Trevor Riordan, International Labour Office; Competencies for civic and political life in democracy, Barbara Fratzczak-Rudnicka, Warsaw University; What family life demands: A purposeful view of

competent performance, Sondra G. Stein, National Institute for Literacy, US; Key competencies in and across important social fields: an employers' perspective, Attilio Oliva Associazione Treelle, Italy.

Towards a framework for defining and selecting key competencies

Dominique Simone Rychen summarized the normative and conceptual considerations relevant for the definition, selection and evaluation of competencies. Three categories of key competencies were proposed as a conceptual basis for identifying key competencies and their main features were outlined. For each category, several key competencies were suggested.

The presentation was followed by parallel workshops designed to provide an opportunity for feedback on DeSeCo's conceptual work to date.

Lifelong learning – development of key competencies

Presentations included Development of key competencies for and in lifelong learning, Adama Ouane, UNESCO Institute for Education; Developing generic competencies in vocational education programs, Andrew Gonczi, University of Technology, Sydney; and Connections between key competencies and social background: Implications for social policy, Douglas Willms, Canadian Research Institute for Social Policy

Key competencies – moving towards indicator development

Following a presentation by Tim Oates, Qualifications and Curriculum Authority, UK, *Key competencies – avoiding the pitfalls of current initiatives*, a panel discussion, moderated by Laura Salganik, Education Statistics Services Institute, American Institutes for Research, was provided by Scott Murray, Statistics Canada; Andreas Schleicher, OECD, Jean-Claude Emin, Department of Programming and Development, French Ministry of Education and Judith Torney-Purta, University of Maryland, US.

Participants reported an appreciation of the high quality of the contributions and discussions at the Symposium, and DeSeCo believes it has made an important step forward towards a more coherent view of what constitutes key competencies as a result of the engaging discourse during the sessions.

Most contributions delivered at the symposium are available.

http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_int02.htm

Strategy paper and final report

A Strategy Paper outlining recommendations for the future utilization of the work of DeSeCo will be prepared and presented to the OECD Education Committee and CERI Governing Board in October 2002. At that point, OECD will seek to engage Member countries in establishing a broad consensus on those competencies, which are particularly relevant for the evaluation of learning outcomes at the international.

A Final Report synthesizing the work of DeSeCo since its inception will be prepared. The chapters include an analysis on the consolidation of the notion of competence based on all inputs to the Project, a description of the multiple approaches in the policy realm to defining and selecting key competencies, a proposal for identifying a limited set of competencies valid in and across social fields, an argument for the relevance of key competencies and their desired outcomes, and an examination of the implications for assessment in large-scale

international surveys. It will be published either with the Hogrefe & Huber or the OECD, and has an expected release date of December 2002

Contact Address

Any questions or comments on DeSeCo can be addressed to:

Dominique Simone Rychen
DeSeCo Secretariat
Program Manager
Swiss Federal Statistical Office
Espace de l'Europe 10
CH-2010 Neuchâtel, Switzerland
E-mail: Dominique.Rychen@bfs.admin.ch

All relevant documents are downloadable at www.deseco.admin.ch

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