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

Summary of the final report

“Key Competencies for a Successful Life and a Well-Functioning Society\(^1\)”

Interacting in socially heterogeneous groups, acting autonomously, and using tools interactively are indispensable prerequisites for an individually successful life and for sustainable socio-economic and democratic development of society; this key finding results from an interdisciplinary OECD Project carried out under the leadership of Switzerland.

What competencies – apart from reading, writing, and computing - are necessary for individuals to lead an overall successful life and for society to face the challenges of the present and the future? With the myriad of conceivable individual and social differences in and across countries, is there any ground for defining a general (or universally applicable) set of key competencies? And if so based on what normative, definitional and conceptual criteria can a limited set of key competencies be identified? Such questions were at the heart of OECD’s interdisciplinary and policy-oriented research program DeSeCo Definition and Selection of Competencies: Theoretical and Conceptual Foundations launched at the end of 1997 as part of OECD’s INES Education Indicators Program.

The importance of flexibility, adaptability, mobility, creativity and lifelong learning in a globalized, changing world is a leading theme in current national and international discourses on education and training. Adults of the 21st century are expected to fulfill many different roles – as students, learners, workers, citizens, family members, consumers; act and navigate in and across variegated contexts, and meet multiple complex challenges in a responsible manner. The newly published final report Key Competencies for a Successful Life and Well-Functioning Society is a fundamental contribution to advancing our understanding of what it means to be a competent individual and of how investments in human capital, in particular key competencies, can benefit both individuals and societies.

DeSeCo adds meaning and conceptual depth to the popular notion of lifelong learning and sets a conceptual context for international assessments, such as the Programme for International Student Assessment (PISA), the International Adult Literacy Survey (IALS), and the Adult Literacy and Life Skills Survey (ALL). It thus serves as a bridge between those involved in school-based assessment of key competencies and those assessing key competencies in adults. OECD’s long-term strategy for assessing competencies of young people and adults will be based on DeSeCo’s conceptual work.

A competence is not synonymous to a skill

Given the lack of rigor and consistency in the use of terms such as competence, skills, literacy and as a response to OECD constituencies’ request for solid theoretical foundations for defining and selecting key competencies, DeSeCo offers a definition of competence that is relevant for policy, practice, and research. A competence is defined as the ability to successfully meet complex demands in a particular context. Competent performance or effective action implies the mobilization of knowledge, cognitive and practical skills, as well as social and behavior components such as attitudes, emotions, and values and motivations. A competence – a holistic notion - is therefore not reducible to its cognitive dimension, and thus the terms competence and skill are not synonymous.
What makes a competence a key competence?

Based upon a review of existing work in the area of competence and on inputs of experts from a variety of backgrounds, the concept of key competence as defined in DeSeCo relies on three general criteria. Key competencies

- contribute to highly valued outcomes at the individual and societal level;
- are instrumental for meeting important, complex demands and challenges in a wide spectrum of contexts; and
- are important for all individuals.

Lifelong learning - but learning what and for what?

The three categories of key competencies – interacting in socially heterogeneous groups, acting autonomously, and using tools interactively – grounded in a holistic model of competence, constitute a core element of DeSeCo’s overarching conceptual frame of reference for developing and assessing key competencies in an international setting. Key competencies are defined by the demands of modern life and conceptualized as contributing to a successful life and a well-functioning society, as expressed by universal values such as respect for human rights, integrated economic, environmental, and social development, and democratic processes.

The key competencies (i.e. the ability to relate well to others; to cooperate; and to manage and resolve conflict) in the first category, interacting in socially heterogeneous groups, are particularly relevant in pluralistic, multicultural societies. Individuals need to learn how to join and function in groups and social orders whose members are from diverse backgrounds and how to deal with differences and contradictions. Acting autonomously, the second category, includes key competencies that empower individuals to manage their lives in meaningful and responsible ways by exercising control over their living and working conditions. The ability to act within the big picture or the larger context; to form and conduct life plans and personal projects; and the ability to defend and assert one’s rights, interests, limits, and needs are critical competencies for participating effectively in different spheres of life – in the workplace, in one’s personal and family life, and in civil and political life. Using tools interactively represents the third category of key competencies. The social and professional demands of the global economy and modern society, the “information society”, require mastery of such socio-cultural tools as language, information, and knowledge, as well as such physical tools as computers. Using tools interactively does not simply mean having the technical skills to use a tool (e.g., read a text, use computer mouse, etc), but assumes a familiarity with the tool itself and an understanding of how the tool changes the way one can interact with the world and how the tool is used to accomplish broader goals. The three key competencies listed in this category are the ability to use - interactively - language, symbols, and text (e.g. PISA’s reading and mathematical literacy); knowledge and information (e.g. PISA’s scientific literacy); and technology.

DeSeCo’s analysis and conceptualization of key competencies are grounded in a vision of the world as complex, interdependent, and conflict-prone. There is a consensus among experts that recalling accumulated knowledge, thinking abstractly, and being well socialized are not
sufficient. Reflectivity - a critical stance and reflective practice - has been identified as the required competence level to meet the multifaceted demands of modern life in a responsible way. Thus, reflectivity represents a transversal characteristic of key competencies.

The development of the identified key competencies and the underlying level of mental complexity does not presuppose either a very high degree of cognitive skills or a high level of education, but requires an overall development of critical thinking and a reflective, integrated practice based on formal and informal knowledge and experience in life.

Yet the underlying competence level implied by key competencies can only be developed – gradually - through childhood into adulthood. This understanding provides a compelling rationale for lifelong learning and adult education. Educational experiences and opportunities for learning and mental development need to be provided into the adult years.

*Key competencies relevant in OECD countries and possibly beyond*

The identified key competencies are interrelated. Meeting any objective will require constellations of key competencies. These constellations vary with the respective context or situation in which they are applied. The central point is that cultural, situational, and other contextual factors shape the specific nature of the demands that must be met. The specificities and relative importance attributed to key competencies within a constellation may be influenced, for instance, by the state of urbanization, cultural norms, technological access, social and power relations, and public order.

Although DeSeCo was undertaken in the context of OECD countries, there are compelling reasons to assume that DeSeCo’s conceptual work and, in particular, the three-fold categorization – interacting in socially heterogeneous groups, acting autonomously, and using tools interactively – constitute a useful conceptual tool for developing and transition countries.

*DeSeCo’s overarching frame of reference for international assessments*

DeSeCo’s outcome – the overarching conceptual frame of reference for key competence – is the results of an extensive collaborative effort over several years among a wide range of experts from different academic disciplines and multiple sectors, countries and international organizations such as UNESCO, the World Bank, the International Labour Organisation (ILO), and the United Nations Development Program (UNDP). It involved sociologists, economists, an anthropologist, philosophers, psychologists, a historian, education researchers, statisticians, assessment specialists, policy-makers and policy analysts, unionists, and employers.
The work program accomplished

DeSeCo’s work program consisted of four major activities. A critical analysis of international studies conducted during the 1990s in OECD countries related to indicators of education outcomes (Salganik et al., 1999) a study reviewing scholarly work on the concept of competence (Weinert, 2001), and expert opinions by scholars from different disciplines (anthropology, economics, philosophy, psychology, and sociology) and comments from policy and practice (Rychen & Salganik, Eds. 2001). These inputs were discussed at the first international DeSeCo Symposium in 1999. Following the first symposium, a Country Contribution Process was conducted in OECD member countries related to the definition and selection of key competencies in national contexts. The second international DeSeCo Symposium took place in February 2002 in Geneva. It provided an opportunity to work towards a consensus on key competencies among a wide range of countries, stakeholders, and interest groups. In response to an OECD request, a strategy paper with the project’s conclusions and recommendations was prepared during the first half of 2002.

DeSeCo’s findings confirm that what has been measured to date at the international level - reading, mathematical and scientific literacy or competence - captures critical aspects of key competencies. However, OECD work in the domain of learning and education outcomes has focused mainly on measuring individuals’ competencies in the category of using tools interactively. Reading literacy (a specificity of the key competence “the ability use language, symbols, and texts interactively”) is universally lauded, and empirical studies such as PISA and IALS/ALL do confirm the salience of these competencies for personal, social, and economic well-being. Yet, investing in this important key competence alone obviously is not sufficient for empowering individuals to meet today’s demands and objectives in a responsible manner. Coping with the complexity of present and future challenges calls for the mobilization of the key competencies in all three categories.

Given the strong normative impact that international assessments, DeSeCo provides a way to situate assessments and existing measures within a larger conceptual context and to recognize the value but also the limitations of current assessments. At the same time the three-fold categorization offers a valuable basis for establishing priorities about which new competencies should and could be included in future international assessments, and thus guide the systematic extension of future assessment instruments toward capturing a wider range of key competencies. In that sense, DeSeCo’s framework will serve as a guide to the OECD for the planning and implementation of a coherent, long-term strategy for assessments and indicators of key competencies among young people and adults.

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Also available:

- Defining and Selecting Key Competencies (2001)
- Projects on Competencies in the OECD context (1999)

The publication *Key Competencies for a Successful Life and a Well-Functioning Society* can be ordered online from [Hogrefe & Huber Publisher](http://www.hogrefe.com).