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This report was prepared as part of the Country Contribution Process (CCP) conducted by the DeSeCo Project *(Definition and Selection of Competencies: Theoretical and Conceptual Foundations)*. The CCP was designed to identify and describe national initiatives regarding the measurement and relevance of competencies in different areas of society--among them, policy, business, civil society, and education.

Further information on the CCP can be found on DeSeCo's web page: http://www.deseco.admin.ch

1 Introduction

The OECD (DEELSA) and the Swiss Federal Statistical Office (SFSO) invited (in a letter dated December 21, 2000) the OECD member countries to participate in the next phase of DeSeCo (Country Contribution Process, CCP) introducing national views to the definition and selection of competencies. The main objectives of this phase were described as follows:

- to provide information on national efforts to define key or core competencies
- to identify, in the national context, the competencies that are considered most relevant to success in important areas of life (e.g., business and the labor market, political and civic spheres and family life)
- to understand how key competencies are embedded in national skill development and evaluation strategies and how these are negotiated among the different stakeholders
- to obtain national views on the relevance of the DeSeCo project and its interim conclusions
- to provide views on the assessment of core competencies, nationally and internationally.

In the U.S., the DeSeCo/NCES/ESSI staff organized the CCP.[1] On December 18, 2000, a national DeSeCo Workshop was organized in Washington, DC, with 19 participants. Previous to the workshop, a Background Note on the CCP had been distributed. The workshop was based on Guiding Questions presented in this note. Minutes of the workshop were produced. After the workshop, some of the participants submitted additional written statements. Documentation of important U.S. projects related to DeSeCo was provided for the purpose of writing this Country Report. The information given in the report is based exclusively on the above-mentioned sources.

The report – as was the workshop – is structured on the basis of the five sets of Guiding Questions presented in the Background Note.

2 Which key competencies?

- Which competencies (or sets of competencies) have been identified or discussed as necessary for individuals to cope with important demands and challenges in particular social arenas (such as the political and civic spheres, business and labor, family) or for a successful life in general? Please focus on developments in the sector you work in.
- To what extent do the identified/discussed key competencies correspond to DeSeCo's three generic key competencies?

The U.S. has a long record in striving for excellence in education, nationally and internationally. Big efforts were invested in comparing educational achievements—particularly the learning outcomes of its young generation—both internally, between communities and states, and externally, with other nations. This tradition goes back well before the 1983 report *A Nation at Risk*[2]; it developed strongly in the nineties and is still gaining momentum. While in European

[1] David Miller (ESSI, National CCP Coordinator) and Laura Salganik (ESSI); Uri Peter Trier (DeSeCo CCP Coordinator).

[2] National Commission on Excellence in Education (1983). A nation at risk. The imperative of educational reform. Washington DC: U.S: Government Printing Office.

countries excellence in education is often equated with the attainment of broad, humanistic goals and academic qualifications, in the U.S. we find a preference for a more instrumental approach, with education seen as a means to political goals such as nation-building, equalizing opportunity, or improving the economy.

The documents and information made available by the CCP show that the last decade has witnessed in the U.S. a forceful effort to identify standards and key competencies that goes beyond the classical supply-driven perspective of defining overarching educational goals and learning objectives in the framework of school curricula.[3] In doing so, the underlying conceptual and semantic choices adopted in the different projects[4] obviously differ from case to case, but the basic strategies bear similarities. The point of departure in the process of identifying standards and key competencies generally is not explicitly normative: the search process aims to grasp urgent challenges, demands and needs with which young adults are (or will be) confronted in their lives in the different roles they play in society and the economy. Notwithstanding a certain distaste for explicitly normative criteria, there is also present in the U.S. work in this field an implicitly normative orientation. The foundation for an analysis of potential key competencies lies in obtaining valid answers to the questions (1) What are people supposed to do in concrete contexts and situations? and (2) What is the difference between successful and unsuccessful actors?

Demands in these projects are mainly described as competencies needed in selected behavioral contexts and fields of activity. The next step is then to categorize and focus these demands in formats of the most-needed skills, competencies, assets or standards required for baskets of representative tasks - and to assemble them in an overall sustainable and handy systematic framework. In doing so, the terms 'knowledge,' 'skills,' 'standards,' 'assets,' and 'competencies' are used with partially overlapping meanings.

It may be helpful to describe briefly this typically pragmatic approach to mastering the problem 'which competencies really matter' that has been used by most U.S. developmental researchers on standards, using the outstanding work accomplished by the 'Equipped for the Future' (EFF) Project during the last eight years as an example.[5]

The journey began in 1993 with a learner consultation as a joint initiative between the National Institute for Literacy (NIFL) and the National Education Goals Panel. Adult students responded to an open-ended request to assist in defining what lies behind National Goal 6.[6] The question

[3] In the U.S., the main effort on the traditional way, linked to school curricula development (in the early nineties), was to develop standards for kindergarten through grade 12 (K–12) aimed at identifying end results of teaching and learning. Its main architects have been teachers and academics within their respective subject areas.

[4] Projects reviewed in the CCP were:
- SCANS: Learning a Living: a Blueprint for High Performance (The Secretary's Commission on Achieving Necessary Skills),
- EFF: Equipped for the Future (National Institute for Literacy),
- Forty Developmental Assets (Search Institute),
- 4H, Four Fold Youth Development Model (Purdue University),
- Targeting Life Skills Model (Iowa State University),
- O*NET: 46 Skills (U.S. Department of Labor),
- Spanning the Chasm: A Blueprint for Action (Business-Higher Education Forum),
- A Nation of Spectators (The National Commission on Civic Renewal).

[5] See Merrifield, Juliet. (2000) Equipped for the Future, Research Report, Washington DC: NIFL; and Stein, Sondra. (2000) Equipped for the Future, Content Standards, Washington DC: NIFL.

[6] See National Education Goals Panel (1999) The National Education Goals Report: Building a Nation of Learners, Washington DC: US Government Printing Office. Goal 6 (agreed to by President Bush and the state governors in

posed was: What is it that adults need to know and be able to do to in order to be literate, compete in the global economy, and exercise the rights and responsibilities of citizenship? After a two-level codification, analysis, and synthesis of 1,500 respondents' essays, four basic purposes for learning were identified:

Access: To gain access to information and resources so they can orient themselves in the world;

Voice: To give voice to their ideas and opinions with the confidence that they will be heard and taken into account;

Independent Action: To solve problems and make decisions on their own, acting independently as parents, citizens and workers, for the communities and their nation;

Bridge to the Future: To keep on learning in order to keep up with a rapidly changing world.

The next step was to develop role maps for effective citizens, workers and parents. To do so, a total of 1,109 participants[7] were involved in 114 focus groups. The task was defined as follows: "Our goal is to define as fully, as concretely, as specifically as possible what any/every adult needs to know and be able to do to fulfill their responsibilities in the three key roles related to Goal 6: parent/family member, citizen, worker."[8] Having synthesized all the inputs, the roles were defined and broken into four levels. Level 1 defines the role, level 2 describes the broad areas of responsibility in fulfilling the role and defines each of these areas, level 3 lists representative key activities for each area of responsibility, and level 4 describes how effective performance in the key activities could be assessed.

Key purpose of the role. Example for the 'Citizen/Community Member Role Map': Effective citizens and community members take informed action to make a positive difference in their lives, communities, and the world.

Broad areas of responsibility. Example for Citizen/Community Member: Become and Stay Informed; Form and Express Opinions and Ideas; Work together and Take Action to Strengthen Communities. Each of these areas is defined more precisely. Example for 'Form and Express Opinions and Ideas': Citizens and community members develop a personal voice and use it individually and as a group.

Key activities. For each area of responsibility, 4 to 7 practical key activities were identified. Examples for two of the five key activities mentioned for 'Become and stay informed as a citizen and community member': Recognize and understand human, legal and civic rights and responsibilities for yourself and others; Figure out how the system that affects an issue works.

Indicators: The role maps were completed by the development of role indicators (How? How well? With what outcomes?) to describe the successful performance of key activities. These performance indicators serve as a link between activities and the skills and knowledge needed to cope with them. Example for the key activity 'Figure out how the system works': Use relevant services and agencies to gain access to or understand the system; identify formal and informal rules; identify positions of power and powerlessness within the system; identify your personal

1989) says: "By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship."

[7] The participants were adult learners, adult education practitioners, civic and community activists, government officials, employers, employees, clergy, media representatives, social service workers and teachers.

[8] Merrifield, J. (see above), p. 20.

relationship to the system; determine the system's timetable, calendar, and other schedules and plan actions accordingly; predict correctly the conditions and changes that will result from a course of action.

The concluding steps consisted in exploring skills and knowledge databases to decide which knowledge and skills should be related to the mastering of the role's key activities, to delineate broader knowledge domains, to identify overlapping common activities of the three roles and to consolidate all these elements into a common set of 16 'generative skills'[9] organized around four main categories. The difficulties when relating activities to skills are described as follows:[10] "The linkage process revealed how complex the relationships are between skills and activities. Most of the activities require several skills. Most of the skills could be applied in a number of activities. The 'cross walk' between the two is not a simplistic equation, but a complex web. It reveals how embedded narrowly defined 'literacy' skills are within broader intrapersonal and interpersonal skills (like communication skills and social skills, self-knowledge and self-worth) and contextual knowledge. Adults need skills from all categories to achieve the purposes for learning and to carry out their roles effectively."

At the core of the final report of the EFF Project is a two-fold listing of (1) 13 common activities for the roles Family, Citizen and Worker and (2) 16 generative skills called 'The EFF Standards.' The EFF Standards are organized around the domains communication skills, decision-making skills, interpersonal skills and lifelong learning skills.

The 13 common activities for the three roles (Citizen, Family, Worker) are:

- Gather, Analyze, and Use Information,
- Manage Resources,
- Work within the Big Picture,
- Work together,
- Provide Leadership,
- Guide and support others,
- Seek guidance and support from others,
- Develop and express sense of Self,
- Respect Others and Value Diversity,
- Exercise Rights and Responsibilities,
- Create and pursue Vision and Goals,
- Use Technology and other tools to accomplish goals,
- Keep Pace with Change.

The four major dimensions of human behavior and action reflected in these activities are *'Access,' 'Voice,' 'Independent Action'* and *'Bridge to the Future.'*[11]

The 16 generative skills (EFF Standards) were defined as "integrated skill processes that are durable over time in the face of change in technology, work processes and societal demands."[12] They are directly related to the 'common activities' (the skills necessary to act successfully) and are organized around the following domains:

[9] See Stein, S. (above), p. 21 ff.
[10] Merrifield, J. (above), p. 33.
[11] They had already emerged as fundamental learning purposes from the first phase of the EFF Project (see above).
[12] Merrifield, J. (see above), p. 35.

- Communication Skills: Read with understanding; Convey ideas in writing; Speak so others can understand, Listen actively, Observe critically;
- Decision-Making Skills: Use Math to solve problems and communicate, Solve problems and make decisions, plan;
- Interpersonal Skills: Cooperate with others, Advocate and influence, Resolve conflict and Negotiate, Guide others;
- Lifelong Learning Skills: Take responsibility for learning, Reflect and Evaluate, Learn through Research and Use Information and Communication Technology.

The most significant asset of EFF is its multilevel design: Content standards were well defined by the knowledge domains and the core tasks to be achieved. These core tasks were identified on the basis of common activities (to the three roles Citizen, Family, Worker), those being related to 'role maps' comprising role definitions, and role areas of responsibility, role key activities and role indicators. The big advantage of this 'down-to-earth' approach is its concreteness and its relevance coming from 'real-life' demands.

Other projects may only be mentioned and/or summarized briefly here, given the format of this report. They followed other ways and used other procedures but reflected the same sense of political urgency and similar pragmatic premises.

SCANS (The Secretary's Commission on Achieving Necessary Skills), a commission appointed by the U.S. Department of Labor, produced a job analysis of 50 jobs (900 specific tasks).[13] On this basis, SCANS[14] defined 'Workplace Know-How' as being made up of five competencies and three skills and personal qualities:

SCAN'S five Competency Areas:

1. Resources: allocate time, money, materials, space and staff;
2. Interpersonal Skills: work on teams, lead, negotiate and work with people from culturally diverse backgrounds;
3. Information: acquire and evaluate data, interpret and communicate, use computers to process information;
4. Systems: understand social, organizational and technological systems, monitor and correct performance, design and improve systems;
5. Technology: select equipment and tools, apply technology to specific tasks, maintain and troubleshoot equipment.

SCAN'S three Skills and personal qualities:

1. Basic Skills: reading, writing, arithmetic and mathematics, speaking, and listening
2. Thinking Skills: ability to learn, to reason, to think creatively, to make decisions and to solve problems and
3. Personal Qualities: individual responsibility, self-esteem, self-management, sociability and integrity.

Also from the U.S. Department of Labor is O*Net OnLine,[15] a comprehensive package on skills, generalized work activities, interests, work context, organizational context, and experience and training. Using this database, the user is invited to "look at your own experience and

[13] SCANS (1991) Skills and Tasks for Jobs, U.S. Government Printing Office.
[14] SCANS (1992) Learning a Living: A Blueprint for High Performance, U.S. Government Printing Office.
[15] http://online.onetcenter.org (2001).

competencies in terms of what different jobs require." 'Skills Search' is a module to relate existing or wanted skills to jobs. Forty-six skills are listed and defined as activities in the categories Basic Skills, Social Skills, Complex Problem-Solving Skills, Technical Skills, System Skills, and Resource Management Skills. To give an example of the sophistication of this list, under the heading Complex Problem Solving Skills (Use to Solve Problems in Real World Settings), the following skills are listed:

1. Problem Identification: Identifying the nature of problems
2. Information Gathering: Knowing how to find information and identifying essential information
3. Information Organization: Finding ways to structure or classify multiple pieces of information
4. Synthesis/Reorganization: Reorganizing information to get a better approach to problems or tasks.
5. Idea Generation: Generating a number of different approaches to problems
6. Implementation/Planning: Developing approaches for implementing an idea
7. Solution Appraisal: Observing and evaluating the outcomes of a problem solution to identify lessons learned or redirect efforts.

On the same level, other categories are described. For instance, 'Social Skills': Social Perceptiveness, Coordination, Persuasion, Negotiation, Instructing, and Service Orientation; and 'System Skills': Visioning, Systems Perception, Identifying Downstream Consequences, Identification of Key Causes, Judgment and Decision Making, and Systems Evaluation.

Another initiative, coming from the economic sector, was the 'Business-Higher Education Forum' (B-HEF), a partnership of the American Council on Education and the National Alliance of Business. In 1995, B-HEF conducted a two-year study to determine what kind of competency gaps exist between education and the economy and how best to bridge them. In 1998, a series of regional round-table workshops were held, bringing together business and academic leaders along with students and newly employed graduates with the goal of helping to ease the transition from the campus to the workplace.[16] The Forum identified nine 'cross-functional and flexible skills (competencies)' as needing further development prior to entering the workforce. The list comprised *Leadership, Teamwork (the ability to work with people from diverse backgrounds), Problem Solving, Time Management, Self-Management, Adaptability (the ability to accept ambiguity comfortably), Analytical Thinking, Global Consciousness (understanding globalization and its implications), and Basic Communications (listening, speaking, reading and writing).* The Forum also dealt with recommendations to ensure the learning of those skills and attributes in the education system.[17]

Research and development programs based in the social sector (e.g., on youth development) worked with different methodologies and took a somewhat different stance but produced results highly convergent with those of the economic sector.

In 1997, Search Institute[18] presented a research-founded framework for developmental assets. Forty critical factors for young people's growth and development were identified that together should offer a benchmark for positive child and adolescent development. The format of the assets

[16] See B-HEF (1999) Spanning the Chasm: A Blueprint for Action, Washington DC: B-HEF; and B-HEF (1997) Spanning the Chasm: Corporate and Academic Cooperation to Improve Work-Force Preparation.
[17] We will come back to them when dealing with the implementation of key competencies through education.
[18] http://www.search-institute.org

– describing, on the one hand, external assets: conditions and characteristics of the environment (family, peers, school community) and, on the other hand, internal assets: personal skills, behavior and attitudes – differs somewhat from the competency approach, which equates skills, knowledge and activities. But a translation from one format into the other isn't too problematic. The differences seem semantic rather than conceptual.

Nevertheless, an interesting element of the Search assets approach is the fact that it builds strongly on the insight that positive, effective individual action and development are determined largely by the social environment. When describing External Assets, something akin to an inherent demand for collective and group competencies needed to create a healthy development climate is advocated. The 20 External Assets are divided into four categories:

1. Support: family support, positive family communication, other adult relationships, caring neighborhood, caring school climate, parent involvement in schooling
2. Empowerment: community values youth, youth as resources, service to others, safety,
3. Boundaries and Expectations: family boundaries, school boundaries, neighborhood boundaries, adult role models, positive peer influence, high expectations
4. Constructive Use of Time: creative activities (arts), youth programs (sports, etc.), religious community, time at home.

Nearer to the competency models are Search's 20 Internal Assets, which describe desirable skills and attitudes of young people. They are also divided into four categories:

1. Commitment to learning: achievement motivation, school engagement, homework, bonding to school, reading for pleasure
2. Positive Values: caring, equality and social justice, integrity, honesty, responsibility, and restraint
3. Social Competencies: planning and decision making, interpersonal competence, cultural competence, resistance skills, peaceful conflict resolution
4. Positive Identity: personal power, self-esteem, sense of purpose, positive view of personal future

The link to other U.S. projects becomes still more evident when looking at the definition of the Search assets. Take, for instance, the five descriptors of 'Social Competencies':

1. Planning and Decision Making: knows to plan ahead and make choices
2. Interpersonal Competence: has empathy, sensitivity, and friendship skills
3. Cultural Competence: has knowledge on and comfort with people of different cultural/racial/ethnic backgrounds
4. Resistance Skills: can resist negative peer pressure and dangerous situations
5. Peaceful Conflict Resolution: seeks to resolve conflict nonviolently

Search has surveyed, with a self-assessment questionnaire, 100,000 6th- to 12th-grade youth in 213 U.S. cities and towns to compare individual competencies and to benchmark communities' assets.[19] One finding was that 25 of the 40 assets were experienced by fewer than half of the young people surveyed. Only slightly more than one-third of those surveyed were convinced that they had acquired the Social Competencies listed above.

[19] See Monitoring the Future: Survey Research Center, Institute of Social Research, The University of Michigan, Ann Harbor. The survey was carried out in school year 1996–97.

The 4-H youth development program[20] builds on 30 years of research and development activity; the need to conceptualize and develop life skills was based on findings of social cognitive and developmental theory. In 1996, a Targeting Life Skills Model (LSM) was issued;[21] in 2000, a related Four Fold Youth Development Model[22] (4FYD) was developed. LSM lists 35 skills in four quadrants and eight categories: Hands (Giving, Working), Health (Being, Living), Head (Thinking, Managing), and Heart (Relating, Caring). The 4FYD model works with the same 4-H labels and lists 47 skills. Although these categorizations and skills breakdowns may appear somewhat arbitrary, the lists of 35 LSM skills and/or 47 4FYD skills are comprehensive.

The 47 4FYD skills[23] are:

- Hands: Mastering technology, learning through community service, volunteering, being a responsible citizen, working in a team, exercising leadership, completing a project/task, motivating yourself,
- Heart: Communicating, interacting socially, cooperating, sharing, resolving conflict, valuing social justice, valuing diversity, building relationships, caring for others, being empathetic,
- Health: Being responsible, developing self-esteem, managing yourself, practicing integrity and character, developing a sense of purpose, developing a positive view of future, utilizing resistance skills, being resilient, managing stress, making healthy lifestyle choices, preventing personal injury, expressing emotions positively, preventing disease,
- Head: Utilizing scientific methods, processing information, understanding systems, managing resources, practicing creativity, making decisions, solving problems, visualizing information, learning to learn, reasoning, thinking critically, keeping records, planning and organizing, achieving goals, navigating in your environment, working with numbers.

This lengthy list[24] becomes much more tangible on the level of skills description by activities. On this level, the similarity to models like EFF is evident. We may illustrate this by breaking down the 4FYD skill 'learning to learn' (included above, under "Head") into activities:

Learning to Learn: acquiring, evaluating, and using information; understanding the methods and skills of learning:

1. Using the senses to gain new information or find new ways to use information
2. Remembering information that is learned; includes processes, such as the Experimental Learning Model, to help ensure that information is retained
3. Understanding the meaning of the information
4. Questioning to gain more information
5. Using the learned information in new situations, to solve problems, or to change one's behavior
6. Being able to break down information into parts

[20] The 4-H program (4 H's for Heart, Hands, Health and Head) is the youth outreach component of the Cooperative Extension Service (U.S. Department of Agriculture). It is a non-formal, educational program for young people 5–19 years of age.

[21] Hendricks, Patricia A. (1996/1998) Targeting Life Skills Model, Iowa State University.

[22] Barkman, Susan J. & Machtmes, Krisanna L. (2000) Evaluating the Impact of Youth Development Programs, Purdue University.

[23] We opt for this list because it is the latest, it is slightly more complete, and its wording is nearer to the 'competencies.'

[24] In the work of the EFF Project, there was a similar concern on lengthy lists of skills and competencies, difficult as they are to avoid when striving for completeness. EFF called it the 'proliferation fall' and tried to boil the lists down to sizable numbers of items.

7. Integrating parts of information to form a whole
8. Judging the value of information for a given purpose
9. Being able to communicate information to someone else
10. Supporting the efforts of others to learn

11. Being open minded; willing to think about and try new things

Two projects related to the civic sphere have yet to be mentioned. Although they were not designed to produce listings of needed competencies, they convey some insight into the broad approach to premises seen as essential for civic engagement.

The final report of the National Commission on Civic Renewal (NCCR),[25] drawing in 1997 a pessimistic picture of America's civic condition,[26] deals with the general background of social coherence and solidarity and issues such as the quality of family life, initiatives in neighborhoods and communities, the impact of mass media, and the relation between affiliation to associations and democracy. It states: "citizens freely working together are at the heart of civic liberty."[27] The Index of National Civic Health, based on 22 trend lines, includes nine other forms of political activities besides voting under the category 'Political participation.' Under the category 'Membership' is included: 'belong to at least one group, attend local meetings, serve on committees, serve as officer of club, and charitable contributions as % of disposable income'.

The IEA Civic Education Study, since it is a very extensive international comparative study of the International Evaluation Association, doesn't reflect U.S.-specific views, but we may assume that its conceptual foundations are consistent with the state of the art accepted in the U.S.[28] A model conceptualizing competencies in the civic realm is described as follows:[29] "The model[30] captures the individual and societal levels. It pictures people as living within a web of overlapping relationships, each of them with opportunities for personal growth and responsibilities. In the center is the individual student, surrounded by public discourse or discussion of the goals, values and practices relevant to civic education. This discussion influences the individual student through face-to-face contact with the family, the school, peer groups and neighbors. In addition to these face-to-face relationships there is also the impact of media (TV, Internet)." On the societal level, processes and values in institutions, politics, and economics intervene.

One of the central ideas being developed by the IEA Civic Education Study stems from understanding that civic competencies relate to (1) ways in which individuals become increasingly closely connected to communities at the personal, local, national and international levels; and (2) processes of civic learning that involve the growth of meaning, practice, relation to community, and formation of identity. On the systemic level, this means "first consolidating and replenishing democratic systems and, second, creating communities that accommodate and/or foster diverse identities and modes of engagement among the members." Here, as in most

[25] The National Commission on Civic Renewal (1997) A Nation of Spectators: How Civic Disengagement Weakens America and What We Can Do About It. (University of Michigan, www.puaf.umd.edu/civicrenewal)
[26] Based on Index results for 1976–1996; Index results improved considerably for 1995–1997.
[27] NCCR Report, p. 8.
[28] The Chair of the International Steering Committee is held by Judith Torney-Purta, Department of Human Development, University of Maryland.
[29] Post-Workshop Statement of Judith Torney-Purta (February 2001).
[30] Inspired by psychological theories on the ecological approach to studying development (Bronfenbrenner) and situated cognition theories (Lave and Wenger).

of the previously described projects, having competencies or not is not merely an individual but a societal matter.

2.1 Overview: a provisory listing of Key Competencies

In the U.S., considerable thinking and work – mainly in the last decade – has been invested in identifying, defining and selecting competencies to be provided through education as being key to the well-being of the nation as a whole and to its different sectors, such as the economy, civic life, family, and youth development.

As a result of these efforts, there exist numerous well worked out and fairly consolidated lists of competencies[31] looked at as essential. These lists are, according to the philosophy and the targets of each project, broad or more compact, varying from ten to 46 items. The lists are generally divided into four to eight categories. (See above.)

Mostly, these competencies are described in a two-fold approach. On the one hand, they are defined and broken down as sets of activities and tasks to be accomplished, and as desirable behaviors and attitudes in the different spheres of life. On the other hand, the perspective is: Which are the categories of cognitive abilities needed to cope with the demands?[32] This inductive approach – from the tasks to the needed cognitive skills and capabilities – is more dominant than approaches going in the opposite direction. The most ambitious projects have chosen an iterative interweaving of both perspectives with an awareness that there are not direct matches between demands and competencies.

One important asset of some of the projects is that competencies are not simply listed and mentioned as desirable or necessary educational goals, but are fully described by a sufficiently wide array of actions and attitudes (based on these competencies) that would be expected in everyday life: at the workplace, in the private sphere (family, parenting, peers, etc.) and as citizens and community members. This could also facilitate assessing the existence of competencies; key activities could at least be the starting point for the development of indicators.

The overlap between the lists of competencies forwarded by the different projects is high.[33] Of course, the projects' different methodological approaches and description patterns don't allow for merging the competencies into a "unified" common set. Nevertheless, it may be helpful to make the overlap visible by categorizing the competencies most often mentioned in common domains:

2.1.1 Communications and Information Processing

This domain may be divided into three[34] subcategories:

1. The 'classical' one linked to language processing and the 'basic skills': reading, writing, speaking, listening and understanding

[31] As already stated, the fact that in the U.S projects competencies are also labeled skills, generative skills, knowledge domains, content standards, key activities, assets, etc., could be an issue for theoretical debate when defining the concept of 'competence,' but is not very meaningful for the purposes of this report.

[32] In many projects, this separation is not very net. Some competencies are described in activity terms; others in capability terms.

[33] It is evident also that later projects generally acknowledged (but sometimes also critically) what had already been done before.

[34] Evidently every categorization implies considerable inter-categorical overlapping.

2. The 'analytical' one linked to the use of math, high-complexity information processing, problem solving, critical thinking, reflexivity
3. The IT information-processing competencies.

2.1.2 Planning and Management

This domain may be described as the capability to prospectively organize one's own and collective actions: make decisions, make choices, plan, make constructive use of and allocate resources and tools (time, money, materials, space, etc.).

2.1.3 System Orientation

This domain comprises competencies aimed at understanding social, organizational and technological systems. It has an analytical and an action-oriented dimension. The action dimension may be concrete ('to work within the big picture,'[35] to monitor and correct performance) or more visionary (to design and improve systems, to create and pursue visions and goals. One important perspective is the sustainability and change of systems, 'bridging to the future.'

2.1.4 Social Competencies/Teaming

In a broad sense, this domain comprises all interpersonal skills, such as cooperating with others, advocating and influencing, resolving conflict, and negotiating. In a narrower sense, it addresses working together, guiding and supporting others, and seeking guidance and support from others. One very critical dimension is the understanding of and cooperation with people from culturally heterogeneous backgrounds.[36]

2.1.5 Civic Competencies

This domain implies competencies that reinforce the democratic civic life on all societal levels, from the neighborhood to the nation.[37] They imply not only individual competencies but also the collective creation of environments that enhance "citizens freely working together."[38] Relevant dimensions are 'exercising rights and responsibilities'[39] and 'valuing social justice,'[40] but also 'peaceful conflict resolution.'[41]

[35] "Understanding globalization and its implications" (B-HEF) is one of the important aspects.
[36] In the EFF wording: "to respect others and value diversity"; in B-HEF terms: "the ability to accept ambiguity comfortably."
[37] As quoted, the role of the citizen as defined by EFF is "effective citizens and community members take informed action to make a difference in their lives, communities and the world."
[38] NCCR Report.
[39] EFF Common activities.
[40] 4FYD Skills.
[41] Search Social Competencies.

2.1.6 Value Orientation

In many projects (the youth development projects, especially), general personal virtues such as caring, integrity, honesty, responsibility,[42] civility, spirituality, and tolerance[43] are mentioned. Although a normative orientation may be an overarching perspective common to most or all competencies and not a competency in itself, it is crucial to shape "the appropriate emotions and attitudes and effective self-regulation of competencies."[44]

2.1.7 Self/Independent Actor

This domain may be defined on the action level: 'acting independently as parents, citizens and workers'[45] or on the level of subjective awareness: 'develop and express sense of self.'[46] The first level is nearer to constructs like self-management[47] and self-efficacy; the second to developing a 'positive identity: personal power, self-esteem, and sense of purpose and positive view of personal future.'[48] Also connected to this domain are competencies related to lifelong learning skills[49] such as 'taking responsibility for learning,' reflecting and evaluating. The way in which these competencies converge is 'selecting goals for oneself, planning and implementing self-defined goals, coping with obstacles and redefining one's goals.'[50]

In the discussions and proceedings of the DeSeCo/CCP Workshop, the overall impression was that the national efforts to identify key competencies in the U.S. are highly convergent with DeSeCo findings as reported to the INES General Assembly and documented in the Compendium soon to be published. The three DeSeCo generic key competencies correspond to some of the salient categorizations and sets of key competencies and key activities present in the U.S. projects. This is particularly the case for autonomy: "competent actors are able to act autonomously and reflectively"; and for teaming and cooperation: "able to join and function in multiple heterogeneous groups." It is easy to relate many of the identified key competencies as described in the U.S. projects above to DeSeCo generic competencies. The third generic competency, the mastery and use of tools – "use tools (language, knowledge, rules and laws, technology…) effectively" – is broad enough to encompass many or most of the additional competencies. This convergence was also mentioned explicitly by many of the participants to the workshop.

But there was also some skepticism expressed about the DeSeCo concept of universal key competencies for all. Some competencies may be more 'key' for some than for others, and

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[42] E.g., SCANS, Search (Internal Assets).
[43] Citation from statement of Laura Lippman: Set of Constructs of Child Trends Inc. for the NICHD Family and Child (?) Well-Being Research Network.
[44] DeSeCo: Human competency – a provisional definition: "A competency (a) is the ability to meet demands of a high degree of complexity; (b) encompasses knowledge, skills, strategies and routines as well as appropriate emotions and attitudes and effective self-regulation of these components."
[45] EFF Codification of basic purposes of learning.
[46] EFF common activities.
[47] SCANS Personal Qualities.
[48] Search, Internal Assets, self-esteem (also SCANS).
[49] EFF Generative Skills.
[50] Eccles, Jacquelynne (1999) citation by Laura Lippman, NCES: "... in the process of identity formation the following tasks are key:

- Selecting educational, occupational and other social-related goals for oneself;
- Developing a plan for moving toward these goals;
- Implementing this plan
- Coping with obstacles and redefining one's goals and plans in light of experience."

excellence in some skills preferable to all-round proficiency. There was also some concern that the societal dimension of citizenry and participation in democratic life should be more strongly reflected in the generic competencies.

3 Assessment, indicators and benchmarking

When measuring educational and training outcomes and evaluating the meaning of learning outcome indicators in your country are overarching key competencies considered important? If yes, which ones?

- Could you relate qualification standards and assessment practices in the business world (e.g., hiring and evaluating employees) and other social fields to key competencies? If so, which ones? How?
- When participating in international comparative studies on student outcomes and life skills, are there indications in your country of an increased interest in key competencies by policymakers? Are there competency areas in which it would seem especially important for your country to be benchmarked against others?

Probably one of the bigger dilemmas facing DeSeCo – as pointed out in the U.S. DeSeCo Workshop, but not limited to that context – is that the broader key competencies are, the more difficult they are to assess. Without going as far as one of the participants to the workshop did, saying that "you shouldn't teach what you cannot assess," it is true that the dilemma of small, tangible, concrete, knowledge- and curricula-related versus big, comprehensive, holistic, complex, multilevel, reflective, life mastery-related – and the relationship of both alternatives to assessment, measurability and validity – has shaped education policies and indicator development policies both in the U.S. and elsewhere from the very beginning.

In the U.S., much weight was given until now to the concrete and measurable. Math, science, reading and subject-related knowledge were tested and integrated into mainstream indicator development, nationally and internationally. But there is a growing concern in many sectors, including the economy, that this may not be enough. However, as expressed at the workshop, it is uncertain to what extent this concern has filtered down into the political realm.

Three reasons for including the assessment of overarching key competencies in the indicator development were present in the debate:

a. The overall awareness and understanding of broad competence areas that cannot be broken down into multiple specific skills as critical to the mastery of youth and adult life.

b. The increasing accountability demands from the political/administrative sector to evaluate the impact of development programs (such as youth development).

c. The growing pressure from the economic sector for the assessment of educational outcomes to better match professional quality and qualification models at the workplace.

One of the questions being discussed is whether the existence of overarching competencies could be assessed as individual assets and/or if those internal[51] transversal competencies[52] could be also

[51] See Search Internal Assets, this report, p. 11.
[52] Or, in another terminology: clusters of life skills.

be assessed externally by their social, economic, civic and environmental impact on social behavior and living conditions in families, groups, neighborhoods, communities, etc.[53]

Regarding which competencies in which it might be especially important to benchmark the U.S. against other countries, it was evident that such choices are difficult and that the problem would not only be what is desirable, but what is feasible. Three broad areas may be taken into consideration: (1) self-management, the private sphere, family and parenting; (2) civics; and (3) workforce preparation and qualification.

Items mentioned in the first area were self-control, self-discipline, autonomous decision-making, career planning, and money and time management. Child and youth development indicators related to family life, parenting practices, etc., could broaden the perspective.

In the second area (civics), our knowledge on the chances, challenges and difficulties of international comparisons are being enriched considerably by the IEA Civic Education Study,[54] in which the U.S. participated along with 28 other countries. In principle, there are no doubts on the importance of benchmarking communities and states within the U.S., and of benchmarking the U.S against other countries, in this domain. But there is also an awareness of the obstacles in doing so, such as context dependability, cultural bias, etc. One interesting approach might be to think and conceptualize 'civic literacy.'

The IEA study has gone a long way in paving the way to a comprehensive understanding of 'civics,' including the domains 'democracy' (defining its characteristics, institutions and practices, citizenship rights and duties), 'national identity, regional and international relationships' and 'social cohesion and diversity.' Maybe the results of this work could evolve into a promising field of further mainstream civic indicator development within and outside the U.S.

Last, but not least, a mainstream area for indicator development and benchmarking, from the U.S. perspective, is the field of key competencies for workforce preparation, transition from school to work and lifelong workplace qualification. Closing the gap between the standards of the formal education system and of sustainable job qualification was and is the objective of U.S. projects like SCANS and EFF, and also of the 'life skills' approach in the U.S. and in international projects in which the U.S. participates.[55] Competencies to be assessed have been defined and in some cases measurement instruments are being developed, but we are only at the beginning of this process. It is to be expected that in this process the 'key competencies' perspective will gain impetus.

4 Public debate – Negotiating and legitimating

- In the last decade, has there been a public and/or professional debate in your country on key competencies in different arenas and social fields (politics, civil society, economics, business,

[53] Statement of Virginia C. Gobeli, 4-H Youth Development: "Outcomes are defined in this model as the changes that occur for youth, families, groups, communities, organizations and systems. Outcomes range from immediate to long range; from learning to action, to long term social, economic, civic and environmental impact."

[54] The Phase 1 results (qualitative study) were published in 1999 by Torney-Purta, Schwille and Amadeo; the results of Phase 2 (testing 90,000 14-year-old students) will appear in autumn 2001 (Torney-Purta, Lehmann, Oswald, and Schulz). Here only a brief reference to this study is made; it will be integrated into a DeSeCo review of international comparative studies related to DeSeCo.

[55] For instance, the International OECD/INES Adult Life Skills project.

labor, mass media and communication, education)? What are the main topics being addressed? What is the relationship between education and key competencies? Has the debate spanned different arenas and social fields?

- Would you see, in the field you are coming from, relatively consensual or controversial positions regarding the definition and selection of key competencies? Could you describe the most influential positions? Who are the main actors and stakeholders?
- Are there mechanisms in place to define, negotiate, and select 'what really matters' in terms of key competencies? Are these negotiating procedures and decision-making processes on the agenda of educational, social, or economic policies?

It would be possible to go very far back in the U.S. history of education to demonstrate this country's deep-rooted tradition of viewing education not as an aim in itself but as geared to serve the public interest and lay the foundations of democracy.[56] This is not the place to unroll this broad canvas. However, the spirit of viewing education as a national challenge is still alive. Today as well, education should guarantee national health and welfare and shape the American democratic society. The National Education Goals (established by President Bush and state governors in 1989) – namely, Goal 3: 'Student achievement and citizenship'[57] and Goal 6:'Adult literacy and lifelong learning'[58] – linked formal knowledge and skills to overarching competencies. And the title of the 1999 National Education Goals Report is 'Building a nation of learners.'[59]

There is evidence that the National Education Goals served as a broad national platform for many initiatives in the formal and informal education sectors. Though the main impetus was still in the direction of articulating school curriculum standards (K–12) and measuring subject-related knowledge (NAEP, TIMSS), increasing attention is now being paid – in mainstream educational policies as well – to youth development indicators, general workplace competencies, civic competencies and adult literacy indicators related to lifelong learning.

It may be stimulating from the international DeSeCo perspective to look for a moment at the typical dynamics of the American way of dealing with this political process. It begins with the identification and dramatization of serious dysfunctions, shortcomings and problems in the national vision of desirable national development. From the perspective of the late eighties, deficits could, for instance, become a risk in wanting to be competitive in the global economy, achieve world-class academic standards, secure safety in communities and strengthen responsible citizenry. National weaknesses were (or are) not perceived as being systemic or structural but as concrete problems to be solved in a limited time span.[60] And, in this view the principal way to do

[56] Dewey put it as follows: "A society which makes provision for participation in its good of all its members on equal terms and which secures flexible readjustment of its institutions through interaction of the different forms of associated life is in so far democratic. Such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder." (Dewey, J. (1916) Democracy and Education, 1st Edition, Macmillan Company; paperback (1966) New York: The Free Press, p. 99)

[57] Goal 3: "By the year 2000, all students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, arts, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy."

[58] Goal 6: "By the year 2000, every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship."

[59] National Education Goals Panel (1999) The National Education Goals report: Building a nation of learners, 1999. Washington DC: US Government Printing Office.

[60] It was not only the magic of '2000' that induced programs to be targeted to this date.

so is to improve education. Vast programs are launched to better delineate the content and scope of necessary educational outcomes by defining standards, selecting relevant competencies and trying to measure whatever possible.

The expectations as to what should be achieved through education are very high. That being the case, much is at stake and, at the same time, high potentials as well as high political risks for failing are generated.

This meant for DeSeCo-related projects like SCANS or EFF, on the one hand, a solid basis of political legitimacy. SCANS[61] identified broad transversal competency areas (see p. 8 above) that would be necessary at the workplace, but on the other hand, the 1992 SCANS bid was to present its findings as 'a SCANS report for the year 2000,' claiming nothing less than the necessity of 'reinventing schools'[62] in order to attain its objectives. EFF completed its comprehensive work establishing inter-sectoral competency standards for adults only recently, but this program also is clearly ambitious, as are others, in its action and implementation orientation. So the big (but not typically American) question will be to what degree the political power to generate impressive developments – those that go in the same direction as the OECD/INES CCC components for PISA and DeSeCo – will be maintained throughout the implementation of these initiatives in national education systems.

The final products of the described American projects obviously reflect consensus. But there are strong indications that this consensus in some cases was reached only after overcoming disagreement during the working processes.[63]

Nevertheless, clear signals for the dominant consensual trend are

1. The large overlapping lists of key competencies of projects coming from different sectors, organizations and projects, and
2. The largely consensual position papers on key competencies coming from different sectors or from inter-sectoral or inter-departmental conferences, agencies and groups.

But there are also remaining areas of controversy. Three were explicitly mentioned during the U.S. DeSeCo Workshop:

1. How comprehensive, deep and effective should and could be the teaching and learning of transversal competencies in formal education?[64]
2. Should value orientation also be an objective of public schooling? Are there boundaries between character education and value education, and, if so, where are they? How are school responsibilities and family rights seen in the light of this controversy?
3. What should be the core of civic competence? What should be the main contents of civic education? What elements of national history should be emphasized? How much emphasis should be placed on 'world citizens' versus patriotism?

[61] SCANS was the label for 'The Secretary's Commission on Achieving Necessary Skills' of the Department of Labor, so being by its very nature a politically legitimated body.
[62] SCANS Report: Learning a Living, p. XVI–XXI.
[63] For instance, NCCR reached agreement on civic standards and principles but not on the question of the institutional models of supplying the education of those competencies through public support of private and religious schools or leaving this to public schools' responsibility. See NCCR's report: A Nation of Spectators, p. 16.
[64] B-HEF (see footnote 19) acknowledged a broad gap between the pressure of employers for improved and broader qualifications based on rapid changes of demands in the labor market and the relative immobility of 'academia.'

5 Key competencies and education

- Is the definition and selection of key competencies an issue in your country when discussing, for example, goal setting and the curriculum of the educational system, training at the work place, or life-long learning strategies? What prospects are envisaged? What are the expectations?
- Which institutions and/or agencies are responsible for the training of key competencies, within and without the formal education system? What role(s) do schools play in the teaching of key competencies?

The previous sections of this report already contain some information on this question set. It seems that there is more explicit debate on overarching competencies as a foundation for educational goals going on in some countries (Australia, New Zealand, some European countries) than in the U.S., especially in the formal education system. But implicitly this debate is also present in the U.S., as has been described above, when establishing the National Education Goals,[65] developing youth development programs, identifying core competencies essential to the workplace, identifying goals critical to health-related behaviors, or developing standards for adult education.

As in other countries, in the U.S. the expectancy as to what formal education in schools should and could deliver is high, including, in principle, the core competencies necessary to succeed in the different sectors, especially the economy. Schools are also made accountable for failures. But among the many indicators being reviewed nationwide yearly by the 'National Education Goals Report'[66] – even under the headings pointing to the goals citizenship and adult literacy – we find only very few indicators, for instance, 'voter registration,' not related to subject-bound knowledge or academic degrees. On the other hand, to give an example, organizations like B-HEF[67] establish recommendations asking to incorporate into the core curriculum of schools "flexible and cross functional skills, including leadership, teamwork, problem solving, time management, communication and analytical thinking" as well as "methods for helping students acquire or reinforce required personal traits, including ethics, adaptability, self-management, global consciousness, and a passion for life-long learning." The Forum has also put forward some ideas on strategies for how to implement such goals in school life.

It is pertinent to quote here a statement of one of the U.S. workshop participants:[68] "Private and religious organizations probably have a greater role than schools in training both youth and parents in competencies. There is some, perhaps increasing, emphasis on organizational and communication skills in the schools, and schools encourage community service, but after-school programs both at school and private organizations, community involvement and family processes are probably more responsible for directly encouraging the development of competencies mentioned above. Some schools are offering programs in tolerance and conflict resolution skills, and there are classes offered in technology and character education, but these tend to be on an ad-hoc basis and are not part of the core curriculum."

This is not the place to go further into the discussion of what is – related to the education of key competencies – considered in the U.S as desirable, necessary, possible and/or feasible in formal and informal education settings. But we would at least like to remind the reader that the issue of

[65] See wordings of Goals 3 and 6: footnotes 61, 62.
[66] For reference, see footnote 9.
[67] See footnotes 19, 20.
[68] Laura Lippman, NCES; Kristin Moore, Child Trends , Inc.

schools, learning and coping with the 'mental demands of modern life'[69] is of course also debated amply in the U.S. academic world, inquiring, for instance, into the orders of mental complexity that would enable self-directed learning.

6 Assessing and developing DeSeCo

- What are, in your view, the highlights and critical issues in the main findings of DeSeCo so far? Do you consider these findings relevant in your national context? How? In any specific contexts?
- How would you relate the DeSeCo Program and, theoretically, the expected results to your own academic, social, economic, or political context?

Although time didn't permit an in-depth discussion of this question set, approval was signaled to the general direction in which DeSeCo is moving. This is also evidenced by the facility with which lists of key competencies developed in various U.S. projects can be associated with DeSeCo categorizations, such as generic competencies.

A special mention positively stressed the importance of DeSeCo normative assumptions emphasizing competencies like close relationships with other people, tolerance, an understanding of oneself and one's world, autonomous interaction, a sense of accomplishment and enjoyment, and democratic action and attitudes.[70] This orientation is in line with development and research, especially in youth development programs.

But skepticism was also expressed on 'engaging in a decontextualized discussion of key competencies.' Competencies should always refer to specific tasks or task sets. Concepts like 'giving the capacity for a good, successful life' are ambiguous, and even a normative assumption such as 'being an autonomous actor' could be contested across cultures and religious groups.[71]

Caution was also offered in view of the future developments of DeSeCo (or its follow-ups) when planning steps for implementation:

1. How would people be motivated to participate in the assessment of the kind of key competencies DeSeCo is envisaging?
2. How would a political and inter-sectoral consensus on measurable key competencies be found and negotiated, nationally and internationally?
3. How would ongoing research findings and activities be integrated into the DeSeCo work?
4. How would the political relevance of findings be communicated to different audiences and actors - especially in the field of educational policy?

Having said this, it still may be worthwhile to state that the keynote of the U.S. debate was a constructive interest in the DeSeCo project and curiosity in its further work.

[69] Kegan, Robert (1994). In over our heads, the mental demands of modern life, Cambridge, Massachusetts & London: Harvard University Press. See especially Chapter 8.
[70] Statements by L. Lippman and V. Gobeli, Search findings.
[71] Intervention R. Fullinwider at the U.S. workshop.