

20 The Challenge of Defining a Quality Universal Education

Mapping a Common Core

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The Universal Basic and Secondary Education (UBASE) project has posed the question: What would constitute a quality education? To answer this question, we describe our understanding of the purpose of universal education and then propose a specific approach to defining a quality education applicable for all. At the heart of the approach is a framework, developed through a broad consensus-building process, to help guide the selection of key competencies which can describe the contents of an education that is applicable and high-quality for countries with different institutions and curricula. Based on this framework, we put forth three specific areas of key competencies as a common basis for developing quality universal basic and secondary education: acting autonomously, using tools interactively, and interacting in socially heterogeneous groups. Last, we review the contributions of other UBASE scholars to demonstrate how these three areas of key competencies not only accord with their viewpoints but help unify seemingly different ways of defining a quality education.

WHAT IS UNIVERSAL EDUCATION?

If everyone in a country were to undertake some sort of education, one could say that education was universal in the country, but this would not be a *universal education*. As we understand it, to have a universal education means to have a singular, common educational experience with the same broad purpose for all. This definition is perhaps easiest to understand by taking a moment to review the origins of universal education.

The practice of universal education developed in Europe in the sixteenth century in the wake of the emergence of the concept of the individual.¹ Although we now take it for granted, the idea of the individual created great social and cultural waves when it first emerged and began to undermine the corporate character of medieval society.² Prominent among these waves were the Protestant Reformation and the Catholic Counter-Reformation, which sought to create the means for individuals to secure their

own salvation (a change from the earlier notion of corporate salvation³). To that end, the states and principalities in Protestant Prussia and Catholic Austria hit upon the idea of using schools to foster a particular sense of individual conscience and agency among all their subjects—one that would enable their subjects to preserve their own souls and be loyal subjects through their own volition. The required education for all was defined by an outcome: indoctrination or knowledge of the faith's doctrine, which was believed to engender religious piety and loyalty to the sovereign.⁴

As the states' religious purposes for instituting universal education became less pressing over the next centuries (with the end of Europe's religious wars), states found universal education to be a practical way to form subjects as autonomous individuals who would obey laws and support the public good because of reason, rather than because of fear of punishment or violence. Thus, schools to provide a universal education evolved into an integral part of the modern European nation-state (Meyer, Ramirez, and Soysal, 1992).

Over the twentieth century, the ends of a universal education continued to evolve in Western nation-states such that state-school systems instituting universal education are now understood to form responsible citizens, independent thinkers, competent (competitive) workers, or some combination of all three. Although ostensibly different from the earlier purposes of universal education, there is an underlying commonality with the past: universal education remains (a) an institution with a common aim for all to become individuals who take on particular responsibilities or can act in particular ways, depending on the social and economic conditions of the times; (b) an institution serving the interests of states, the collective decision maker of the curriculum (both explicit and hidden) that is made common to all; and (c) an institution implemented through formal schooling.⁵

These characteristics pose various challenges for any attempt to make a high quality education both universal and worldwide, primary among which is how to define it—or, more precisely, a common core—that can be applicable for all and be of high quality for all. Key competencies we believe can effectively address this challenge.

KEY COMPETENCIES

Before we explain how key competencies provide a way to define a quality education suited to universal education and a practical approach for pragmatically anchoring education policy-making to what people need to be able to do, it is helpful to understand the origins of the idea of key competencies.

For much of the twentieth century, a quality education was defined by characteristics of inputs such as qualified teachers, adequate school resources, and/or a sound curriculum. These are, after all, widely believed

to be primary factors in the quality of an education in any school. In the past few decades, however, many countries and most international organizations dedicated to improving education in developed and developing countries have begun to view such inputs as important but not sufficient to achieve a quality education. Instead they increasingly focus on outcomes, such as graduation rates, level of educational attainment, and student achievement, to drive educational improvements. As a result, outcomes such as academic achievement and rates of secondary school completion have gained a prominent place in educational policy discussions.

In addition, especially since the late 1980s, when social and economic changes associated with new technologies (e.g., the silicon chip that made possible the micro-computer, cell phones, computerized appliances, etc.) and globalization (of world markets and the rise of free trade after World War II) have prompted discussions in Western nations about whether existing structures of schooling designed for an earlier time were relevant for preparing young people for the demands of life today.⁶ In Europe and the United States, these discussions originated, by and large, in the economic and labor sectors and eventually led to a range of proposals for curricular reform (to promote desired academic and social outcomes) and for measured outcomes (to ensure accountability). The range of proposals within individual countries was broad; but across Western nations, the proposals had common themes. Proposals called for school systems to “revise the content of schooling,” “to build bridges across disciplines,” to rethink the existing notions of separate vocational and pre-university academic education, to prepare students for a “new workplace,” and “to hold schools and school systems accountable” for results. In addition, these proposals typically drew upon a common vocabulary, using adjectives such as “life,” “key” or “core” to describe “skills” or “competencies” (Salganik and Stephens, 2003; Weinert, 2001).

The way in which outcomes were to be operationalized to effect these proposals, however, was hazy. By the mid-1990s, it was evident in a number of Western countries that, while policy-makers were increasingly focusing on measures of outcomes, the extant measures were limited in their policy uses and did not reflect new ideas about what students needed to learn. Measures of educational performance were disconnected from other outcomes and unrelated to broader discussions about curriculum, standards, what young people need for a successful life, and the purpose of schooling generally. What policy-makers and educational reformers needed were broader measures of educational outcomes and a conceptual framework for relating different outcomes to each other (Salganik, 2001).

International efforts to make outcome measures more useful for policy led to an international project, under the auspices of the Organisation for Economic Co-operation and Development (OECD),⁷ to develop a broader vision of the endpoint of education that could guide the development of

indicators of educational outcomes: individuals with the competencies they need to lead successful lives and contribute to successful societies. This project—Definition and Selection of Competencies: Theoretical and Conceptual Foundations, or DeSeCo, for short—explored whether a limited set of *key competencies* could be identified that could serve as a guide for the development of broader measures of teaching and learning outcomes and, more generally, for the formulation of educational policy and practice.⁸

DeSeCo initiated an international interchange among scholars from different disciplines as well as policy-makers and policy researchers. The goal of this interchange was to develop a conceptual and theoretical foundation for identifying and understanding key competencies for OECD countries, though participants recognized that it would be potentially relevant beyond the OECD as well.⁹ The central guiding question of the project was: Beyond reading, writing, and computing, what competencies are needed by individuals to live a successful life and for society to face the challenges of the present and the future in modern, democratic societies?

Given the wide array of terms and lists related to this topic already existing (Salganik and Stephens, 2003; Weinert, 2001), the goal of the project was not to produce yet another list of desired attributes for individuals. Rather, the idea was to create a broad overview of the topic—a frame of reference¹⁰—that in addition to responding to the question could guide discussion about education; ground debate about the goals of education pragmatically (i.e., in what people need to be able to do as individuals in a modern society); facilitate a common understanding; and support the development of indicators, policy, and practice.

In the next section, we describe the building blocks of this frame of reference: the concept of competence, the concept of key competence, an explicit view of highly valued outcomes (what constitutes success for individuals and for society) and common demands of life in today's world, and a three-fold categorization of key competencies.¹¹ We believe this frame of reference is relevant internationally and can guide the process of reaching consensus on key competencies that are applicable worldwide and constitute a common core for a quality *universal* education for all, while leaving to the discretion of each country the choice of educational content and teaching method. In addition, this frame of reference grounds educational reform and policy-making on a conceptually logical and resolutely pragmatic foundation. In the last section of this chapter, we discuss the relevance of this approach for non-OECD countries.

DESECO'S FRAME OF REFERENCE

The purpose of DeSeCo's frame of reference is to provide a means of distinguishing between key competencies and other competencies and,

ultimately, selecting key competencies. In addition, once key competencies are selected, an explicit frame of reference anchors their meaning so that they are not merely textual descriptions open to any interpretation. Thus we start this explanation with DeSeCo's concept of competence.

Concept of Competence

DeSeCo's definition of competence focuses on the demands facing individuals and the actions, choices, or behaviors needed to meet these demands. A competence is defined as "the ability to successfully meet complex demands in a particular context through the mobilization of psychosocial prerequisites (including both cognitive and noncognitive aspects)" (Rychen and Salganik, 2003b, p. 43).

This definition incorporates three critical elements. First, it includes demands placed on individuals in different areas of life, including in the family, the workplace, civic life, and social or personal life. It also allows demands to be expressed at different levels of abstraction—sometimes broadly, such as the need to cooperate with others, and sometimes specifically, as for an occupation, situation, or particular area of life. What is critical in this conceptualization of competence is that a competence entails being able to meet a demand facing an individual (e.g., the need to be able to use a map to get to a destination in an unfamiliar place) and not just an academically desirable ability (e.g., naming all the cities on the map).

Second, this definition of competence recognizes that a range of internal prerequisites combine to allow individuals to meet demands. These prerequisites may include knowledge, cognitive skills, practical skills, attitudes, emotions, values and ethics, and motivation—multiple factors that interact among themselves in a complex manner that eventually results in an action (see Figure 20.1).

Many of these internal attributes—including both cognitive and noncognitive ones—have been thought of as competencies (e.g., knowledge), but, according to this definition of competencies, they are not. Indeed, in this formulation, knowledge may be important even to meet demands that are typically not characterized as cognitive. Similarly, to meet demands often characterized as "cognitive," attitudes, emotions, values and ethics may play an important role. Thus, it may do little good to possess particular internal attributes (e.g., knowledge, values, etc.) unless one has the entire constellation of attributes that contributes to behavior, choices, or action that meet the particular demand. This is evident, for example, in how motivation, knowledge, and skills¹² are all called into play and interact dynamically to allow individuals to meet the demands of everyday life. Each element is critically important; no one element works without the others.

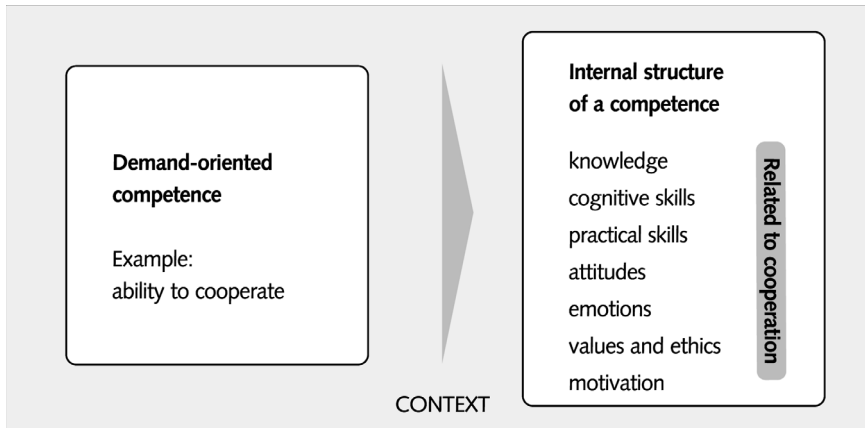


Figure 20.1. The demand defines the internal structure of a competence. Reprinted with permission from *Key Competencies for a Successful Life and a Well-Functioning Society* by D. S. Rychen and L. H. Salganik, ISBN 0-88937-272-1, p. 44, © 2003 by Hogrefe & Huber Publishers.

The third critical element of the definition is the role of context. Competencies are played out in the social and physical environment—and thus their specifics, as well as the specifics of their internal components, are profoundly influenced by the individual’s particular situation. For this element, DeSeCo drew from Pierre Bourdieu’s notion of social fields (Bourdieu, 1980, 1982; Swartz, 1997). According to this theory, individual action takes place within dynamic systems or sets of social interests and challenges, which are referred to as social fields. Meeting demands in a social field involves understanding and being able to operate within the system of capital of the field. As competencies vary on the scale of abstraction, social fields vary according to specificity. They can be broad, such as spheres of life, or they can be quite specific, such as a particular context (e.g., a work situation or family situation). With the inclusion of context in its definition, the concept of competence recognizes that there is variation in how competencies are manifested over time and place, even within developed countries.

Concept of Key Competence

DeSeCo defined competencies as “key competencies” if they:

- [1] contribute to highly valued outcomes . . . in terms of an overall successful life and a well-functioning society . . .
- [2] are instrumental for meeting important, complex demands and challenges in a wide

spectrum of contexts . . . and [3] are important for all individuals (Rychen, 2003, pp. 66–67).

Several ideas in this definition are worth further explanation.

First, individual behavior is recognized as affecting not only the individual but also the larger society. Thus, while a key competence contributes to an individual's successful life, at the same time, it also contributes to a well-functioning society. An example of such a “win–win” result that could be the outcome of a key competence is social capital, in the sense of social networks grounded in trust, which benefits the individual and his or her larger community.

Second, key competencies are important for different areas of life, such as the economic sector, civic life, the family, interpersonal relations, individual and public health, and are not directed solely toward individuals' basic survival or society's basic functioning. Thus, key competencies may contribute at the individual level to successful participation in the labor market, civic and political life, and interpersonal relations, as well as health and general satisfaction with one's life. Key competencies may contribute at the social level to a productive economy and democratic processes as well as social cohesion and peace.

Last, key competencies are neither reserved for the elite—they are for everyone—nor are they a second-rate substitute for academic knowledge and skills—they challenge everyone. Competencies that are needed only by some or are relevant for a narrow area of life may be important for those individuals or in those contexts, but they are not key competencies. This understanding of key competencies accords with the conceptual analysis of universal education presented earlier, whereby a universal education means a singular, common educational experience with the same purpose for all. It also demonstrates the logic of applying key competencies to the task of defining universal education goals: Identifying key competencies is functionally the same as outlining the common core for universal education.

Highly Valued Outcomes

Given this definition of key competencies, the selection of key competencies depends crucially on how one defines “highly valued outcomes in terms of an overall successful life and a well-functioning society.” How one defines such outcomes, of course, depends on a value judgment about what is a successful life and a well-functioning society. Moreover, this value judgment needs to be one that can be universally shared—that is, one based on a common set of values or a common vision of a desired world. Thus, before attempting to articulate what is a successful life and a well-functioning society, DeSeCo addressed the question of whether there is or can be a universal normative set of values and/or a vision of a desired world across OECD countries and potentially in transitional and developing countries.

DeSeCo determined that it is reasonable to assume that a normative set of values and a normative vision of a desired world are possible given that international agreements and conventions—for example, the Universal Declaration of Human Rights, the World Declaration on Education for All, the Rio Declaration on the Environment and Development—are based on normative grounds “which specify basic human rights, democratic values, and sustainable and integrated environmental, economic, and social development as desirable goals for all societies” (Rychen, 2003, p. 69). These agreements are based on the notion that there are sufficient common ideas and values to support collective world enterprises (Delors and Draxler, 2001).

This conclusion was reinforced by the philosophers’ contribution to DeSeCo on the topic of the “good life.” Canto-Sperber and Dupuy (2001) argue that all humans share certain psychological needs and capacities (e.g., the aspiration to go beyond necessity, to learn from the past and plan for the future, to think, remember, imagine, have feelings and emotions). These common aspects, along with major moral theories, justify their conceptual criteria for a good life: accomplishment, the elements of human existence (“choosing one’s own course through life and having a life which is properly human”), understanding of oneself and one’s world, enjoyment, and deep personal relations (Canto-Sperber and Dupuy, 2001, p. 74).

Based on these very basic and fundamental common aspects as a normative starting point, DeSeCo next tried to articulate what is a successful life and a well-functioning society (Gilomen, 2003b). It was beyond the project’s scope to conduct a rigorous in-depth analysis of this topic, but the project set forth initial thoughts based on a review of the literature. In sum, DeSeCo proposed eight principal dimensions for a successful life and six for a well-functioning society.

A Successful Life

Any consideration of “what is a successful life?” must recognize that that question involves both subjective and objective elements; success can be assessed from either an objective perspective, using external criteria, or from a subjective one, using the criteria and perceptions of the individual whose life it is. In addition, individual accomplishments are always to some extent contingent on resources available to the individual. In the context of these caveats, DeSeCo proposed eight principal dimensions of a successful life (Gilomen, 2003b):

1. Economic positions and resources (gainful employment, income, and wealth).
2. Political rights and power (participation in political decisions and in interest groups).

3. Intellectual resources (participation in formal education, availability of learning foundations).
4. Housing and infrastructure (quality of housing, infrastructure of surrounding environment).
5. Personal health and security (subjective and objective health, personal security).
6. Social networks/social capital (family and friends, relatives and acquaintances).
7. Leisure and cultural activities (participation in leisure and cultural activities).
8. Personal satisfaction and value orientation (personal satisfaction, autonomy in value orientation).

These dimensions incorporate elements that are outcomes strictly speaking but also others that fall more easily in the domain of resources and access to resources. Further, they are not presented as of equal importance. Although the underlying assumption is that an overall successful life will take account of all these dimensions, their relative importance will vary across individuals and across contexts (Gilomen, 2003b).

A Well-functioning Society

Although similar to desired individual outcomes, DeSeCo's definition of a well-functioning society focused on institutions, social structures, and desired societal-level characteristics—such as equity and how resources are distributed. DeSeCo identified a general consensus around several critical features of quality societies to suggest a set of dimensions of a well-functioning society that are in line with the basic normative stance described previously (Gilomen, 2003b). These dimensions are:

1. Economic productivity.
2. Democratic processes.
3. Solidarity and social cohesion.
4. Human rights and peace.
5. Equity, equality, and absence of discrimination.
6. Ecological sustainability.

These social characteristics, along with the dimensions of an individual's successful life, cover a broad array of aspects of life. Inevitably, there will be conflict between individual and social outcomes and also across different areas that make up success for society or individuals. As will be seen in the following text, understanding and dealing with these conflicting demands constitutes an aspect of key competencies needed by individuals.

Common Demands of Life in Today's World

The final component for identifying key competencies within DeSeCo's frame of reference is a definition of the common demands of today's world. Without demands in common, key competencies cannot be universal. It is clear that even within the OECD, different countries and different groups within and across countries have different concrete circumstances and have different cultural traditions and social institutions. These all contribute to variation in specific demands facing individuals. Yet, as with the normative starting point, there are characteristics that these societies share and demands that individuals living in them face in common. Without conducting an in-depth analysis of modern, democratic societies, we can state briefly that common challenges arise from increasing interdependency throughout the world, new forms of transportation and communication, and the movement of populations.¹³ Furthermore, old and new problems such as poverty, inequality of opportunity, preserving the environment, increased competition, and alienation and violence are certainly not the exclusive province of one country or another (Rychen, 2003). Facing uncertainty and complexity is the rule rather than the exception in today's world, wherever one lives.

Beyond these social, physical, and psychological demands, there is also a specific common mental challenge that emerges from the nature of modern life: the demand for reflectivity and reflective practice. This is the demand for a level of mental development that allows individuals to take a critical stance toward their own lives, to see themselves as products of their own making and not merely products of socializing processes, to create a value system that allows them to prioritize among conflicting demands, and to take responsibility for what happens to themselves. In short, it is a demand for individuals to achieve what Kegan (2001) terms the "self-authoring order of mental complexity" (p. 197) or to become the playwrights of their own lives.¹⁴

DeSeCo found broad agreement across OECD countries that this sort of reflectivity was needed by individuals today to address complex and potentially conflicting demands as well as to take an active role in grounding their actions in their own value systems. DeSeCo contributors agreed that merely recalling knowledge, thinking abstractly, and being well socialized are no longer sufficient (if they ever were) for individuals to meet the demands facing them today.

One reason this capability is so important is that issues often cannot be resolved through an either-or solution. Individuals need to recognize and deal with tensions, "for instance between equality and freedom, autonomy and solidarity, efficiency and democratic processes, ecology and economic logic, diversity and universality, and innovation and continuity—by integrating seemingly contradictory or incompatible goals as aspects of the same reality" (Rychen, 2003, p. 78). Beyond recognizing these tensions,

individuals need to make decisions and take responsibility that their decisions and actions are consistent with their goals and values. This is such a basic requirement for competence in any area that DeSeCo recognized reflectivity as a basic element in its frame of reference.

The elements just described provide a theoretical and conceptual foundation for defining key competencies. They do not, however, provide guidance for actually selecting the key competencies that are needed for individuals to live a successful life and for society to be well-functioning. For this, DeSeCo's frame of reference includes a three-fold categorization from which key competencies can be selected.

Three-fold Categorization of Key Competencies

DeSeCo developed its three-fold categorization of key competencies based on (a) the understanding that key competencies are competencies needed by all individuals to lead a successful life and contribute to the success of society (DeSeCo's common normative framework), (b) the common demands of life, and (c) scholarly contributions. This conceptualization of the three categories, together with the information about the use of key competencies in OECD countries, formed the basis for identifying the exemplar key competencies in each category. The categories (and exemplar key competencies in each category) are as follows.¹⁵

1. Interacting in Socially Heterogeneous Groups

Human beings are dependent throughout their lives on ties with others, not only for physical survival but also for their sense of self and social meaning. This category addresses interaction with others, and given the pluralistic character of modern democratic societies, the focus is on socially heterogeneous groups—"different others." Because "[w]e live in a network of close relationships," this category of interacting in socially heterogeneous groups "concerns the development of social bonds and coexistence with people whose backgrounds may be different from one's own, who do not necessarily speak the same language (literally or metaphorically) or share the same memories, history, culture, or socioeconomic background" (Rychen, 2003, p. 87). Key competencies under this category benefit individuals both in instrumental ways and by enriching their understanding of themselves and society. These competencies work to strengthen social cohesion and alleviate fragmentation and social strains associated with increasing individual diversity. (This group of key competencies addresses the general concerns associated with such terms as "social skills," "social competencies," and "intercultural competencies" found in lists of key competencies submitted to DeSeCo.) DeSeCo identified three exemplar key competencies in the category of interacting in socially heterogeneous groups.

The ability to relate well to others. This key competence focuses on initiating, maintaining, and managing personal relationships, for instance with family members, friends, neighbors and co-workers. Empathy—taking the role of the other person and seeing things from his or her perspective—is an important prerequisite to relating well to others. It leads to reflection about options for actions, with the realization that one’s own view is not necessarily shared by the other person. Awareness and management of one’s emotions are also important for relating well to others.

The ability to cooperate. Many demands of modern life cannot be met by one individual alone. Cooperation—working together with others toward a common goal—is a key competence mentioned repeatedly in the DeSeCo material. Joining forces with others is necessary in work teams, families, civic organizations, unions, management groups, indeed in just about every social environment. Cooperating involves balancing one’s own desires with commitment to the group and its goals and norms, balancing responsibility for active participation with the need to share leadership and support others, understanding one’s roles and responsibilities in relation to the group and its goals, constructing alliances with others, allowing for different shades of opinion, and making compromises (Rychen, 2003).

The ability to manage and resolve conflicts. Conflict occurs in all aspects of life, and the ability to manage and resolve conflict is the third key competence identified by DeSeCo in this category. It is an unavoidable by-product of individual freedom, and rather than seeking to avoid and eliminate it, conflict should be approached in a constructive manner. This means considering the desires and needs of others, looking for win–win solutions rather than exclusively achieving one’s own goals, and recognizing when others’ needs take precedence over one’s own. “For individuals to take an active part in conflict management and resolution, they need to analyze the issues and interests at stake (e.g., power, recognition of merit, division of work, equity), the origins of the conflict, and the reasoning of all sides, and recognize that there are different possible positions” (Rychen, 2003, p. 90).

2. Acting Autonomously

Acting autonomously is the category of key competencies that focuses on an individual’s sense of identity and empowerment to exercise control over his or her own life. It should not be interpreted as meaning that individuals can do whatever they want or can freely act in isolation from others. Rather, acting autonomously is complementary to acting in socially heterogeneous groups; all our actions take place in the context of other people and of social norms and institutions. Key competencies in this area enable individuals to develop a value system, “to act rather than to be acted upon, to shape rather than to be shaped, and to choose rather than to accept choices decided by others. Acting autonomously refers to participating effectively in the development of society, in its social, political,

and economic institutions (e.g., to take part in decision processes), and functioning well in different spheres of life—in the workplace, in one’s personal and family life, and in civil and political life” (Rychen, 2003, p. 91). The image of individuals determining life outcomes is most commonly associated with those who have power in society, but key competencies related to acting autonomously are just as important for those at the margins of power if they are to conceive of potential for change and take action to improve their lives. It is recognized that autonomy has to be considered relative to the rules of the social field in which an individual operates—for example, the rules of autonomy are influenced by institutional norms (e.g., military, bureaucratic, religious, schools). However, even in these spheres, there are situations in which stepping outside of institutional norms and exercising individual autonomy is recognized as consistent with a wider value system. Three exemplar key competencies were identified in this category.

The ability to act within the “big picture.” This key competence involves not only understanding that individual actions take place within a larger normative and socioeconomic context, but also acting in accordance with the wider implications of one’s actions. The “big picture” is frequently multi-faceted, including not only the local situation but also a wider view of the community and ultimately a global perspective. This competence allows individuals to understand the larger issues at stake and the consequences of their actions in a larger context, so that individuals’ actions are just and responsible, even when not easy or convenient (Rychen, 2003). It requires individuals to have an understanding of the larger physical and social world, envision the impact of different courses of action, and choose actions that are consistent with one’s values at different levels of the system.

The ability to form and conduct life plans and personal projects. This key competence enables individuals to see the development of their lives as an object of their actions. Initially, this entails being aware of one’s own obligations, goals, and dreams. Then, it requires an orientation toward the future and the ability to prioritize among different possible ends, understand one’s own strengths and weaknesses, balance resources, learn from the past, monitor progress, and make adjustments (Rychen, 2003). It is also associated with terms used in policy discussions such as “self-directed learning,” “strategic competencies,” and “self management.”

The ability to defend and assert one’s rights, interests, limits, and needs. This key competence recognizes that in modern Western societies, individuals are responsible for making myriad decisions, and both the norms and formal rules related to them are increasingly complex. It is often the case that an individual’s rights, interests, and needs are in conflict with those of others. As a result, autonomous action is needed both to assure rights related to the self (such as fair opportunities in society) and in the interest of collective life (such as adequate health care or education for all, effective democratic institutions). Many rights are established in formal laws, but

these rights should be seen by individuals as a resource, not a guarantee. “The development of this competence empowers individuals to assert both personal and collective rights, ensure a dignified existence, and gain more control over their own lives” (Rychen, 2003, p. 97).

3. Using Tools Interactively

Like interacting in groups, using tools is a universal activity for human beings. Here, the term “tool” is used in the broadest sense of the term, to include not only physical tools but also socio-cultural ones such as language, information, and knowledge. The adverb “interactively” signifies that what is needed is not just the technical skills to operate a tool (e.g., reading or making a phone call with a cell phone); to use a tool interactively is to understand the potential of the tool for allowing us to do new things, to interact with the world in a different way, to endeavor to accomplish new goals. Our experiences using various tools should “shape how we make sense of and become competent in the world, how we deal with transformation and change, and how we respond to long-term challenges” (Rychen, 2003, p. 98). When we encounter a new tool, we recognize its potential to allow us to do new things—live in different places, communicate with others differently, express new ideas, solve new problems, or undertake new activities that we could not do before—and take action accordingly. Three exemplar key competencies were identified in this category.

The ability to use language, symbols, and text interactively. Here the focus is on using language, symbols, and text to participate in society and accomplish personal goals. Thus, it requires, for example, the ability not only to read or manipulate numbers correctly, but also to reflect on the content’s relevance in one’s life and draw on attitudes and values to use the language, symbols, or text as a tool to relate to the world. This key competence is related to “communication competence” and also to some uses of the “literacy,” although the meanings of these terms vary widely.

The ability to use knowledge and information interactively. This key competence draws attention to the importance of knowledge and information for individuals and society. But again, what is important is not just to have knowledge or information; what is important is to use it to make decisions or take actions. “It assumes critical reflection on the nature of information itself, its technical infrastructure, and its social, cultural, and even ideological context and impact. Information competence is necessary as a basis for understanding options, forming opinions, making decisions, and taking informed and responsible actions” (Rychen, 2003, p. 101). Using knowledge and information interactively is needed not only for activities generally thought of as cognitive but also for those considered as predominantly social. Knowledge and information are important

for understanding others and interacting with others in a manner that is consistent with one's values.

The ability to use technology interactively. Human beings are confronted with advances in technology when new technologies are developed or when they are introduced where they were not available before. In today's world, information and communication technologies in particular have placed new demands on individuals. Using new technology interactively entails not only learning how to operate it and agreeing to adopt it, but also adapting to what it makes possible. Examples from the developed world are the use of the cell phone and e-mail. They are not simply a different medium for making a telephone call or sending mail—they have changed the way people communicate with others. There are many other technologies that have changed the way we live (e.g., cars, televisions, DVDs, microwave ovens, and the Internet, to name a few that have affected the West in living memory). Recognizing the potential to do new things with such technologies and acting in a manner that is consistent with what one values in making use of that potential is at the heart of using tools interactively.

Key Competencies in Action

We have described these exemplar key competencies individually, which is important to do for reaching consensus on them and for designing curricula and assessments. However, in real life none of these key competencies would be used in isolation from the others because of the multifaceted nature of demands on individuals and the interrelated nature of the competencies. In real-life situations, individuals need to draw on multiple key competencies, coming from different categories, especially when meeting practical demands described at a broad, abstract level—e.g., participating in a club or political interest group, deciding how to vote, contributing to sustainable development. In such cases, the particulars of the social field, including those related to normative aspects of different cultures within and across countries as well as of the particular situation, are an important factor in structuring the constellation of competencies needed by the individual.

For this reason, DeSeCo proposed that the idea of a *constellation* is a useful way to think about groups of key competencies: “A constellation of key competencies, therefore, is a culturally and contextually specific instantiation of key competencies in response to the specific nature of the demands of the local situation” (Rychen, 2003, p. 105). Examples of factors affecting the structure of the constellation are the level of urbanization, cultural norms, property rights, technology, civic organization, and social and power relations. Figure 20.2 graphically illustrates this point—that the importance of a key competence to achieving a desired outcome can vary in different contexts.

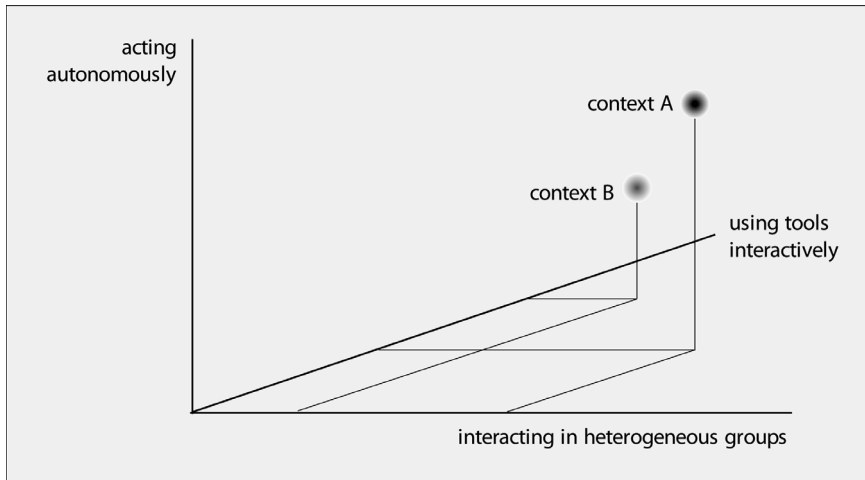


Figure 20.2 The relative importance of the three categories of key competencies in different contexts. Reprinted with permission from *Key Competencies for a Successful Life and a Well-Functioning Society* by D. S. Rychen and L. H. Salganik, ISBN 0-88937-272-1, p. 105, © 2003 by Hogrefe & Huber Publishers.

In Figure 20.2, competencies related to acting autonomously and interacting in heterogeneous groups are more important in Context A than in Context B, whereas competencies related to using tools interactively are more important in Context B than in Context A. Although oversimplified, the point is that using key competencies to define a common core for an education is neither a “one-size-fits-all” approach nor a strait-jacket approach. The relative importance of the key competencies can vary given the needs of different countries, social fields, or other particulars of the social and economic environment.

Given such flexibility, we believe the approach we have outlined here can provide a better guide for policy and programmatic decisions related to the goals of education than the more commonly found lists of attributes and outcomes whose interconnections are not made explicit. Moreover, because this approach is explicit about its normative orientation, we believe it can ground policy debate about the goals of education in what people should and need to be able to do as individuals in modern society and, thereby, check the tendency of educational policy debate about *what is a quality education* to drift into discussions of ideological goals devoid of practical considerations.

APPLICATION TO NON-OECD COUNTRIES

As noted previously, participants in the DeSeCo project developed the frame of reference to identify key competencies that would be relevant in

OECD countries. However, they also recognized that their work could have broader applications beyond the OECD¹⁶ given that improving education and lifelong learning strategies are on the political agenda worldwide—as evidenced by contributions to DeSeCo (Ouane, 2003; Riordan and Rosas, 2003), efforts of the World Bank (2002), and the UBASE project itself. Moreover, the global trend toward standardization of institutions; the influence of international organizations, such as the World Bank, the OECD, the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the United Nation’s International Labour Organization (ILO); and the adoption of universal objectives expressed by the international conventions that form the normative basis of DeSeCo all support the hypothesis that DeSeCo’s three-fold categorization would be relevant and useful for developing and transitional countries. To know whether they truly are relevant and useful, however, will require further consideration and research. Toward that end, the next section of the chapter draws on the work of other contributors to this volume to consider this approach’s worldwide applicability, ultimately arguing that DeSeCo’s frame of reference is applicable and can contribute to policy dialogues beyond the OECD.

Considering DeSeCo’s Approach beyond the OECD

First, the approach taken by DeSeCo comprehends education in the same way that the UBASE project and its contributors have: as a means to many positive, non-economic social outcomes at the individual and societal level, as well as economic ones. This broad purpose for education is explicitly at the heart of the UBASE project, which at its inception identified the needs for UBASE as humanitarian, sociological, political, and economic (Bloom and Cohen, 2002). This conception is also echoed in the goals of education proposed by other UBASE contributors to this volume: for example, building global understanding (Mahbubani, Chapter 3); linking education to life, livelihood, peace, and social justice (Ramachandran, Chapter 8); fostering global civility (Reimers, Chapter 14); and ensuring a balanced education that includes teaching citizenship and community responsibility, and social skills and work ethic (Rothstein and Jacobsen, Chapter 17).

Further, DeSeCo’s concept of competence—premised on the idea that multiple attributes (knowledge, values, motivation, cognitive and practical skills, attitudes, and aspects of context) must be brought together for competencies to take root—matches the broader, multi-dimensional understanding of learning called for by several UBASE contributors in their chapters on what constitutes a quality education. For example, Mary Joy Pigozzi (Chapter 18, p. 237), in her contribution on UNESCO’s perspective on a quality education, noted that “[w]hile in the past much of the emphasis on education related to cognitive understanding and development, now there is a need to also address the social and other dimensions of learning.” Camer Vellani (Chapter 7, p. 98), drawing on his experience in Pakistan,

wrote that a quality education recognizes that “[m]ultiple factors modulate an individual’s knowledge, which in turn influences behavior; prominent among them are moral reasoning, social and economic status in society, and beliefs derived from religious teaching, tradition and culture.”

Building on the concept of competence, the concept of key competence—with its emphasis on being applicable to everyone; being grounded by the important, complex demands of modern life; and leading to a successful life and a well-functioning society—aligns remarkably well with the policy dialogue about education in developing countries. Making education relevant to the demands of modern life was identified as one of the world’s principal educational needs by UNESCO and representatives of nations from around the world at the Jomtien Conference on Education for All in 1990 and the Dakar World Education Forum in 2000. At both conferences, participants reaffirmed the need for “[b]asic academics” but at the same time recognized the need for “education to reflect upon its relevance to the modern world” (Pigozzi, Chapter 18, p. 237). This is the same need that initially led the OECD to examine the value of key competencies, and it is the reason the concept of key competence makes sense for universal education—it offers a way to make education relevant to the world by linking educational policy, curricular development, and educational accountability to the demands of real life faced by all.

Thus nothing about DeSeCo’s approach limits it to OECD nations. However, this does not mean that DeSeCo’s particular three-fold categorization of key competencies is the most relevant for non-OECD nations, especially developing nations. Indeed, one can easily imagine the case being made that this frame of reference is too Western-centric or that for some developing nations more narrowly targeted competencies, say in individual hygiene or training for industrial or agricultural work, are more important.

Relevance of the Areas of Key Competencies

Reviewing the essays and commentaries submitted for the UBASE project, we found that none of them identified narrowly targeted competencies as key to a quality education for developing nations. On the contrary, all called for broad definitions of a quality education, and each identified educational needs or approaches that fit within DeSeCo’s frame of reference and/or within one or more of DeSeCo’s three categories of key competencies. The majority of the scholars identified self-reflectiveness or critical thought or “reflectivity”—at the heart of DeSeCo’s frame of reference for identifying key competencies—as a major part of any quality education (Charfi and Redissi; Levinger; Meier; Mahbubani; Pigozzi; Rothstein and Jacobsen; Suárez-Orozco; Vellani, this volume). Several noted the need for a respect for democratic processes and/or for human rights to inform and guide a quality education, which accords with DeSeCo’s common normative starting point for its frame of reference.¹⁷ Moreover, the three categories

of educational needs identified by two of the scholars—Beryl Levinger and Marcelo M. Suárez-Orozco—corresponded astonishingly well with DeSeCo’s three categories of key competencies. The educational needs and approaches these scholars identified support the relevance for non-OECD nations of DeSeCo’s frame of reference and its three specific categories as a starting point for identifying key competencies.¹⁸

The most common educational needs cited by these scholars correspond to the key competencies grouped under the rubric of interacting with socially heterogeneous groups—that is, the ability to relate well to others, the ability to cooperate with others, and the ability to manage and resolve conflicts. This category of key competencies encompasses what Deborah Meier (Chapter 13, p. 178) refers to as “informed empathy for others unlike ourselves” and what Kishore Mahbubani’s (Chapter 3, p. 71) labels the global need “to promote more cross-cultural understanding.” It also covers some of the skills that Mary Joy Pigozzi (Chapter 18, p. 244) identifies as important “learning outcomes” within the UNESCO perspective of a quality education—“to work in teams, to live together and interact with those who are different. . . .” This category addresses the need identified by Fernando Reimers (Chapter 14) for education to reduce socially transmitted hate and intolerance, which has been at the root of worldwide occurrences in the twentieth century of discrimination, racial/ethnic oppression, and genocide. It also seems consistent with Levinger’s (Chapter 5, p. 86) analysis that the sort of education that can responsibly equip a girl in a West African village for the future she will face must include “processes that add to the store of social capital in the community”—that is, processes by which “the relations—formal and informal—that bring people together to take action” develop “the glue that holds a society’s institutions and citizens together.” Moreover, it touches on all three of the qualities that Suárez-Orozco (Chapter 15, p. 208) suggests globalization selects for in all countries: (a) “habits of mind and higher order cognitive skills fostering . . . the capacity to work with others on complex problems . . .,” (b) “the ability to communicate and understand others across cultural boundaries,” and (c) “the ability to navigate across discontinuous or incommensurable linguistic and epistemic systems.” Given the great degree of immigration (both intra- and internationally), exacerbated ethnic tensions in regions of economic transition, and the shrinking “global village” that are among the common characteristics of globalization’s effect on all nations, it is not hard to see why key competencies under this category are relevant to all nations.

The key competencies grouped under the rubric of using tools interactively—that is, the ability to use language, symbols, and text interactively; the ability to use knowledge and information interactively; and the ability to use technology interactively—are perhaps most consistent with the commonly held expectations for education, for example teaching literacy and numeracy. These competencies also address the needs for constructive or contributing members of society (cited by Ingram, Chapter 19) and for

what Levinger (Chapter 5, p. 84) calls “metacognitive skills that contribute to the transfer of knowledge and to the solution of novel problems.” This category also can address the need for what Suárez-Orozco (Chapter 15, p. 208) identified as “the ability to navigate across discontinuous or incommensurable linguistic and epistemic systems.” Given that the thrust of these competencies is so fundamental, it is hard to imagine any type of education that does not develop some facet of these competencies.¹⁹

The key competencies grouped under the rubric of acting autonomously—that is, the ability to act within the “big picture”; the ability to form and conduct life plans and personal projects; and the ability to defend and assert one’s rights, interests, limits, and needs—are the most debatable competencies for nations with strong traditional, especially tribal, cultures because autonomy is at the heart of modernity. And for many, to foster autonomy within a traditional culture is to sow the seeds of social conflict. Yet, this category resonates with the educational needs identified by Levinger’s analysis (of the sort of education needed by a West African girl to escape poverty) and Vellani’s assessment (based his experiences in Pakistan). For Levinger (Chapter 5, p. 85), it is essential to develop “skills that prepare learners to avail themselves of development opportunities”—for themselves, their families, their communities, and their nations. According to Vellani (Chapter 7, p. 99), all students need to learn “to apply moral reasoning; to acquire a broad range of knowledge about the physical world as a part of the universe; to appreciate life as an unusual phenomenon and understand its history and precarious sustenance in an ecosystem; to appreciate the constancy of human biology and the diversity of civilization and cultures; to understand the existence of the spiritual constituent of human thought and the diversity of its expression; to express creativity.” This category, likewise, addresses the need for what Suárez-Orozco (Chapter 15, p. 208) identified as “the habits of mind and higher order cognitive skills fostering autonomy and creativity of thought.” Such professional opinion about educational needs, however, does not mean competencies related to autonomy will be valued in traditional cultures.

Broader Demand for Autonomy

We believe there is good reason to believe that a demand for fostering autonomy exists broadly worldwide because there are clear signs that autonomy is sought in parts of the world that in the past were considered resistant or opposed to the modern, individual self implicit in promoting autonomy. For example, in Russia, a country long focused on collectivist and socialist values, the need “to help each young person to develop a reflective and autonomous personality” was ranked among the highest educational needs in 1998 by educational policy-makers and officials in Moscow as well as local elites in Kemerovo and Vladivostok (Bain, 2001). The same premium on autonomy was reported by elites in China, Hong Kong, Japan, Korea, Malaysia, and Taiwan (nations that have been regarded as paragons of collectivism) in the Sigma Survey

conducted between 1996 and 1998. This surprising result was highlighted by William Cummings (2001), in his discussion of the survey's finding:

Whereas past accounts of the [education values stressed by countries around the] Pacific Basin stressed the penchant for orderliness and control including the tendency to use values education to shape habits of national loyalty and obedience, the elite respondents of the twenty settings participating in the Sigma Survey suggest a new era may be emerging with an increased emphasis on personal autonomy and responsibility (p. 296).

Indications that autonomy is more broadly sought than in the past are not confined to elites or to nations experiencing rapid economic growth. In Guatemala, the Mayan community, which fought a decades-long civil war as part of their effort to preserve their traditional culture and heritage, established the Instituto de Cultura Maya in 1984 to “regain control of their cultural inheritance.”²⁰ The Institute has sought to do this by standardizing a written Mayan alphabet, creating curricular materials for primary schools in the various Mayan languages, and promoting the teaching of Mayan culture in primary school to Mayan children in their mother tongue—all of which is designed to foster self-respect and individual autonomy among Mayan children so that Mayans as a collective can preserve their traditional culture in the face of hegemonic Hispanic culture and modernity. This is a strategy, however, that upends the conventional notion that traditional culture and modern autonomy are incompatible.²¹ Further, in rural African communities, traditionally accepted practices (e.g., rape to secure a young girl's hand in marriage, female genital mutilation as a rite of womanhood, etc.) have been challenged within the communities by younger generations that have learned of human rights but do not seek to abandon their traditional cultures or communities.²² These challenges suggest that autonomy may not necessarily be contrary to the traditional cultures as much as disturbing to existing power relations. Such examples are largely anecdotal and are merely suggestive. Yet they support the idea that key competencies related to “acting autonomously” are meaningful and relevant beyond OECD countries. This is not to say that they will necessarily be desired universally, as they are part and parcel of modernity. And, as the first section of this chapter made clear, to institute universal education is to tacitly impose a modern social order with a state-directed education system and a norm of autonomous individuals, all of which will not be welcome in some places.

Caveats

Our argument thus far has focused on the value of key competencies and DeSeCo's frame of reference for all nations seeking to provide quality universal education. We are not claiming, however, that this approach offers

any simple way to institute quality universal education in every area of the world. We see DeSeCo's frame of reference with its three categories of key competencies as a fruitful starting point for any serious effort to formulate a broad standard for quality UBASE. However, adopting this approach will require vetting the frame of reference in a wider international community, exploring its implications for teaching and learning, and interpreting the categories of key competencies for different national contexts. Beyond that, states need to plan and implement suitable policies and practices for schooling that foster individual students' development of key competencies.

Furthermore, we are not claiming that this approach is a panacea to solve the perennial problems of implementing a quality education in every area of the world, regardless of the social and economic context. For example, in areas of subsistence farming one can institute all of the outward activities of schooling and compel attendance with some degree of success, but children whose parents had no formal schooling and who see that educated individuals of similar birth enjoy no better standard of living than their own parents may see no value in formal education and have no motivation to learn in school. As a result, such children may end up completing no more than two or three grades of a primary education. For those who do complete a basic education, there is the problem that Vellani (Chapter 7, this volume) illustrates, that disillusionment sets in when the proportion of the educated unemployed grows as a result of the growth in the population and low investment in development. Such institutional problems cannot be forgotten if one wants to improve education quality.

Lastly, while we believe this approach offers a new direction, it is hardly radical: it does not require completely remaking schooling, and it builds resolutely on the work of many, many individuals and organizations, most notably, UNESCO. UNESCO created an International Commission on Education for the Twenty-first Century in 1993 to look at "What kind of education is needed for what kind of society tomorrow?" The commission's final report, *Learning: The Treasure Within*, identified four "pillars of education" or "four types of learning": "learning to know, that is acquiring the instruments of understanding; learning to do, so as to be able to act creatively on one's environment; learning to live together, so as to participate and co-operate with other people in all human activities; and learning to be, an essential progression which proceeds from the previous three . . . [and] that emphasizes the development of the complete person" (Delors, et al., 1998, p. 86). DeSeCo's work remaps these four types of learning within its broader frame of reference, which also calls upon policy-makers to be explicit about, for example, what "learning to live together" means in terms of behavior of individuals, and educators to specify and instill the prerequisites individuals need in order to act in ways that fulfill this goal.

A COHERENT MAP FOR DEFINING QUALITY UNIVERSAL BASIC AND SECONDARY EDUCATION

The task of defining a quality universal education is not a simple one, but it is also not completely impossible. As this chapter has explained, there are various institutional elements of universal education that shape how a *quality* universal education can be defined, and there are myriad possible approaches to answer the question of what is a quality education. We have reviewed the DeSeCo Project's effort both because its frame of reference works within these institutional constraints and because we believe it offers a promising approach to the task.

As described, DeSeCo's approach is promising for several reasons. It employs the concept of key competence, which fits the basic requirement of universal education: that it would impart—at a general level—the same “something” to everyone—a common core. In addition, it meets the practical need to be relevant to the demands of the modern world for both developed and developing nations, allowing the specifics of countries' key competencies to vary according to each country's social and cultural context. It can fit within the existing institution of schools and schooling both because it serves as a *guide* to orient educational change, rather than a *blueprint* to prescribe educational reform, and because it echoes many themes that are already in public discourse about education.

Moreover, DeSeCo's approach has a theoretical and conceptual foundation that has been already vetted through an international and interdisciplinary process. Although its framework, including its three-fold categorization of key competencies—acting autonomously, using tools interactively, and interacting in socially heterogeneous groups—needs to be vetted further and refined in a wider arena, it represents a sizeable intellectual and international endeavor to address questions that are fundamental for defining quality UBASE. Among these, in particular, DeSeCo's approach keeps at the top of the agenda the question that is at the heart of the educational enterprise of shaping society by shaping individuals: what do individuals need to be able to do?

APPENDIX A: SCHOLARS' CONTRIBUTIONS ON KEY COMPETENCIES

To assemble material on key competencies, DeSeCo, at the start of the project, asked scholars from different academic disciplines (anthropology, economics, philosophy, psychology, and sociology) and different countries (France, Switzerland, the United Kingdom, and the United States) “which competencies are key?” Their ideas represented a range of viewpoints about what is important for individuals to learn. The following is a brief synopsis of each of their contributions.

Philosophers Monique Canto-Sperber (*Centre National de Recherche Scientifique, Paris*) and Jean-Pierre Dupuy (*Ecole Polytechnique, Paris*) established a set of values that are useful for defining a good life and are consistent with major moral theories: accomplishment, choosing one's own course through life, understanding oneself and one's world, enjoyment, and deep personal relationships (Canto-Sperber and Dupuy, 2001). In addition, they established the premise that the human mind cannot be reduced to a set of abstract rules or algorithms that describe the workings of a machine. Based on these values and this premise, the authors identified five broad dimensions of competence: (a) coping with complexity (recognizing patterns); (b) perceptive competencies (discriminating between relevant and irrelevant features); (c) normative competencies (choosing the appropriate means to reach a given end, appreciating various possibilities, making and applying moral judgments); (d) cooperative competencies (cooperating with others, trusting others, taking the role of the other); and (e) narrative competencies (making sense of what happens in life to oneself and others, describing the world and one's own real and desirable place in it). These competencies they believe can be construed as dimensions of a five-dimensional space, with subcompetencies and skills pertaining to several, if not all, of the five areas of key competencies.

Psychologist Helen Haste (*University of Bath, England*) began from the premise that humans are adaptive, social beings whose competencies both derive from these attributes and allow them to meet the demands of particular historical periods and social contexts (Haste, 2001). She proposed management of the tension between innovation and continuity as an overarching meta-competence, and she identified five broad areas of key competence: adaptively assimilating changing technologies; dealing with ambiguity and diversity; finding and sustaining community links; managing motivation and emotion; and the competence to focus on morality, responsibility, and citizenship. She described the competent individual as one who "is self-sufficient, able to focus attention and plan, with a future orientation, is adaptable to change, has a sense of responsibility, has a belief that one can have an effect, and is capable of commitment." Haste suggested that it is useful to think of competencies through thinking of individuals as "Tool Users" in the sense that tools (including language) are "part of an active dialogue between the individual and the environment" (Haste, 2001, p. 96). Competencies, then, are more than skilled use of the tool; they involve recognizing what the tool makes possible, integrating new ways of understanding or making sense of the world, and introducing new activities into our lives.

Sociologist Philippe Perrenoud (*University of Geneva*) focused his analysis on "ordinary actors, the woman or man in the street, doing their best to survive and live as well as possible" (Perrenoud, 2001, p. 126). What competencies do they need to preserve their autonomy, without infringing on that of others, and to avoid being abused, alienated, dominated, or exploited? Drawing on Bourdieu's concept of social fields, Perrenoud proposed a set of transversal key competencies: being able to identify, evaluate,

and defend one's resources, rights, and limits; to form and conduct projects and develop strategies, individually and collectively; to analyze situations and relationships; to co-operate, act in synergy, and share leadership; to build and operate democratic organizations and systems of collective action; to manage and resolve conflicts; to understand, apply, and elaborate rules; and to construct negotiated orders beyond cultural differences.

Economists Frank Levy (Massachusetts Institute of Technology) and Richard Murnane (Harvard University) argued that recent social changes related to technology and globalization have transformed the competencies needed in the workplace (Levy and Murnane, 2001). They used relevant economic theory and available empirical results, as well as their own research with hiring practices of high-performance firms, to identify those competencies that predict economic success and individual income. These competencies include reading and mathematical skills (not only for their instrumental use but as the basis for lifelong learning); oral and written communication abilities; skills to work productively in different social groups; emotional intelligence and related abilities to co-operate well with other people; and familiarity with information technology. As a result of their grounding in economic theory and research, these competencies are identified in a particular field and for a specific group (e.g., employees in the labor market), but are seen as relevant across social fields and groups.

Anthropologist Jack Goody (University of Cambridge) rejected the idea of identifying common key competencies per se on grounds that theory must always be considered in the context of practice (Goody, 2001). Recognizing that there may be some very general qualities required by modern life, Goody focused on the intractability of specifying key competencies that can span cultures, social contexts, and individuals *within* any one country, let alone *between* countries at a sufficient level of specificity to guide practice. Relevant for UBASE, he also cautioned against limiting the work to developed countries because it is bound to be used in a larger context and have a homogenizing effect, which he views as negative.

These scholars' ideas are very heterogeneous, but this is hardly surprising considering that the scholars structured their approaches to identifying key competencies around different organizing ideas, central questions, and conceptual frameworks. With the exception of Goody, however, they each proposed a set of key competencies needed by the individual for what the authors define as success, reflecting their overall approaches. While seemingly disparate on the surface, these sets of key competencies have many underlying common themes. To work toward developing a synthesis, DeSeCo asked two scholars to review these five papers and identify commonalities among them.

One commonality that *developmental psychologist Robert Kegan (Harvard University)* saw across these sets of key competencies was the need for individuals to reach a particular level of mental complexity (Kegan, 2001). Kegan drew from his evolutionary theory of mental development in which individuals' "ways of knowing" change from childhood through adulthood.

Young children, for instance, are very literal and mimetic in their thinking about the world, while adolescents can think abstractly, construct values and ideas through self-reflection, and subordinate their interests to those of a group. These mental capacities indicate maturation, but they are not sufficient for adults to meet the often conflicting demands of the modern world. To do that, it is necessary to go one step further, to step back from one's own socialization and create one's own system for prioritizing and resolving conflicting demands, and then to act—to be the author of one's own script, or “self-authoring.” In his review, Kegan observed that each of the papers described competencies in a way that expects individuals to have sufficient mental development beyond the socializing process to a point at which they are mindful of their socialization but, in the face of challenges and conflicting demands, they do not view their lives as bound by an “unquestioned set of arrangements” (Kegan 2001, p. 199).

Sociologist Cecilia Ridgeway (Stanford University) identified two broad areas of common ground among the essays: (a) the ability to join and function effectively in social groups and (b) the importance of personality attributes (Ridgeway, 2001). She considered the first to be a truly universal key competence, necessary for material and psychological survival of human beings. The reason for this, she argued, is that in modern democratic societies, it is necessary for people to join and operate democratically in multiple, complex, and socially heterogeneous groups. The components that she found to contribute to this competence included taking the role of the other, finding mutually agreeable solutions in the face of conflicting interests, motivation to act democratically, and cognitive complexity and ideational flexibility. Ridgeway thought that the second area of common ground—personality attributes—includes self-concept (which supports individuals' ability to act with confidence) and emotion management (which allows individuals to deal with frustration, disappointment, and failure).

APPENDIX B: VIEWS FROM POLICY AND PRACTICE ON KEY COMPETENCIES

Given that its work was ultimately directed at the policy arena, DeSeCo asked individuals from relevant organizations to comment on the scholars' contributions and invited OECD countries to contribute reports about how key competencies were used at the national level and which key competencies were identified.²³ DeSeCo learned that identifying common key competencies across countries and social contexts is not without challenges and complexities, but that at the same time the concept of competencies is already in wide use, and there are many similarities in how it is used and in what competencies are considered important.

The question of whether it is appropriate to think that there may be common key competencies, even within countries, was raised by several

respondents. The New Zealand report commented that the value placed on autonomous individual behavior reflects a Western paradigm, which is not consistent with the values of the Māori and Pacific peoples' cultures (Kelley, 2001). Some respondents noted that differences between Western capitalist ideas about property and the values of middle-Asian communal economies may mean that one needs different key competencies for different groups (Oates, 2003). Respondents also identified citizenship as an area where common key competencies may not be possible, for while meeting demands related to being a citizen may be a common key competence, the particularities of doing so differ in different political and cultural contexts (Fratczak-Rudnicka and Torney-Purta, 2003).

The majority of respondents, however, concurred that, in spite of contextual differences, which everyone recognized, it is possible and worthwhile to identify key competencies and use them to guide policy and practice. Delors and Draxler noted that all collective human endeavor is based on the assumption that there are some things that unite individuals, and they cited the United Nations and democratic governments as examples of institutions that assume certain common ideals and values (Delors and Draxler, 2001). They rejected the argument that the fact that these commonalities are sometimes situational or seen as idealistic and ideological makes them irrelevant. Consistent with the idea mentioned previously that key competencies should be anchored in a normative starting point, they pointed to their experience with UNESCO's International Commission on Education for the Twenty-first Century. Despite the different perspectives related to cultural viewpoints, pragmatic versus ideal starting points, and differential application of these values, the commission

discovered a much greater agreement about the nature of competencies than one would assume. The ability to make moral judgments and apply them, to describe the world and our own real and desirable place in it, the ability to marshal our own skills to constructing a future that involves living in society (with its freedoms and constraints), and so on, are universally recognized as competencies for a "successful life" (Delors and Draxler, 2001, p. 215).

DeSeCo also found that the idea of key competence has been a useful conceptual tool in different social fields in many OECD countries for formulating and discussing policies that respond to broad demands seen as associated with rapid technological changes, globalization, and movement toward a "knowledge economy." Although the emphases have been different, the idea of key competence as a means for expressing a broad view of capabilities needed by individuals has resonated in education and in the economic sector, and also in other fields such as youth development and citizenship:

- In education, key competencies are often associated with broadening of both general and vocational education and also with reforming education for social renewal. In some countries (generally Austria, Germany, and Switzerland), they have been a policy vehicle for promoting curriculum changes that integrate across schools subjects, either directly through curriculum reform or indirectly through school-leaving requirements. In others (generally the Nordic countries), key competencies have been used in national expressions of the goals of education (Salganik and Stephens, 2003).
- In the economic sector, the use and value of the concept of worker competencies and skills has become quite standard. “Workers in all types of industry are involved in a growing number of activities which are related to the new technologies, but above all, to new tasks, new responsibilities and new resources” (Callieri, 2001, p. 228). As a result, worker competencies and skills are frequently seen as “the first strategic factor that can be used to boost productivity and market competitiveness” (Callieri, 2001, p. 228). Competence development and management as a legitimate guiding framework for organizational decision-making is seen as an addition (or alternate) to the traditional focus on formal qualifications and a means for integrating the notion of lifelong learning into the business management process (Farrugia, 2001). From the labor perspective, there is the concern that these strategies are used by business to promote their own interests,²⁴ although in some countries (Sweden and Denmark), unions have also used the idea of key competence as a means to promote increasing the opportunities for workers (Callieri, 2001; Farrugia, 2001; Oliva, 2003; Ritchie, 2001).
- Outside of the formal education system, discussions about key competencies have arisen in initiatives meant to contribute to the social, emotional, physical and/or intellectual development of youth. For example, in the United States, the 4-H program conducted a research study to conceptualize life skills in each of the four “H”s: Hands, Health, Head, and Heart. A similar effort has also taken place in the Netherlands. Concern in the civic sector has focused on behaviors associated with participation in democratic society.
- A number of national-level projects have conducted research and developed statistics and indicators related to key competencies. Responding to the National Educational Goal for “every adult American to be literate and possess the knowledge and skills necessary to compete in the global economy and exercise the rights and responsibilities of citizenship” (National Education Goals Panel, 1999), the United States initiated *Equipped for the Future: What Adults Need to Know and Be Able to Do in the 21st Century* (EFF), which conducted an extensive consensus process to ask adults what skills they thought they needed in their roles as citizens, family members, and workers, and to identify the skills that underlay these activities. Switzerland, Canada,

and Denmark have conducted research and developed indicators structured around key competencies. Related research in France has focused on the importance of context for developing indicators of skills and competencies.

At the international level, a number of large-scale survey efforts have measured characteristics related to key competencies across countries. The Adult Literacy and Lifeskills Survey (ALL) assessed literacy, numeracy, and problem-solving in 2003 and builds on the International Study of Adult Literacy (IALS), conducted during the 1990s. Most international studies of school-age youth have focused on school subjects. For example, in 2001 and 2006 the IEA's Progress in International Reading Literacy Study (PIRLS) assessed fourth graders' early reading skills. However, recent efforts to measure competencies more broadly include the Programme for International Student Assessment (PISA) conducted by the OECD and the IEA Civic Education Study. PISA measures reading, mathematical, and scientific literacy, and in 2000, 2003, and 2006 measured cross-curricular competencies such as self-regulated learning and problem solving. The IEA Civic Education Study measured civic knowledge, skills, and attitudes of fourteen- and eighteen-year olds. In addition, the OECD is currently developing the Programme for the International Assessment of Adult Competencies (PIAAC), for administration in 2011. PIAAC is intended both to "identify and measure differences between individuals and countries in competencies believed to underlie both personal and societal success" and to "gauge the performance of education and training systems in generating required competencies."²⁵

After the OECD countries submitted these reports to DeSeCo, psychologist Uri Peter Trier (University of Neuchâtel, Switzerland) conducted an analysis of them (Trier, 2003). His conclusions about which competencies are identified as key in the different OECD countries are shown in Table 20.1.

Table 20.1 The Most Common Demands for Individual Competencies in Twelve OECD Countries, by the Frequency with Which They Were Mentioned in Country Reports for DeSeCo

<i>High</i>	<i>Medium</i>	<i>Low</i>
Social competencies/ Cooperation	Value orientation	Cultural competencies (aesthetic, creative, intercultural, media)
Literacies/Intelligent and applicable knowledge	Self-competence/ Self-management	Health/Sports/Physical competence
Learning competencies/ Lifelong learning	Political competence/ Democracy	
Communication competencies	Ecological competence Relation to nature	

Source: (Trier, 2003, p. 45).

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NOTES

1. The idea of a universal education makes little sense without the abstract idea of some underlying commonality and an understanding of all persons as agents capable of making decisions and acting to affect themselves and others. Indeed, without these notions, the practical reality of everyday life experience is more likely to lead one to conclude that not all people can or should learn the same things. For a sociological account of the social construction of the concept of the individual as having the "capacity for responsible agency," see Meyer and Jepperson (2000). On the relationship between "the rise of individualism" and mass education (and how "[m]ass education is meaningless and in fact practically inconceivable where the primary social unit is the family, clan, village, or other group collectivity"), see Boli and Ramirez (1986). Historians differ as to exactly when and why Europeans developed the concept of the individual, but clearly a sense of individualized relationships (and the tensions between individual and collective responsibilities) captivated public interest by the sixteenth century, when Shakespeare's plays on this theme were popularly received. For differing historical accounts, see Ullman (1966) and Morris (1972).
2. Medieval society (or, more precisely, society under the *ancien régime*) owed its corporate character to a feudal governing system, introduced in the eighth and ninth centuries during the Norman and Saracen invasions, that some historians refer to as "corporativism." Under this system, "the ruler decentralized responsibilities and rights, in the hope that barons and townships would perform functions for him that he, the king, could not afford, or did not have the strength, to perform himself." As long as the social order was organized by corporativism, the fundamental units of society were not individuals but rather "corporate groups of individuals" (e.g., manors, parishes, towns, guilds, universities and academies, commercial and financial companies, etc.). Each of these corporate groups had "its own carefully delimited rights and responsibilities," creating "a vast agglomeration of chartered freedoms, ranging from the aristocrat's right to receive tolls at a bridge to a peasant's right to pasture a cow in a common field" (Sachar, 1990, pp. 4–5).
3. The medieval notion of corporate salvation held that the actions of the clergy could save the entire church of the faithful from eternal damnation but that individuals could do nothing to effect their individual salvation.

4. For an historical account of these developments, see Van Horn Melton (1988).
5. The term *institution* can refer either to an established practice or form of organization, or to an established society or corporation. The latter is the more common usage; however, in this chapter, we use the word *institution* in the former sense—to indicate a human practice or form of organization that has become conventional and, as a result, may be regarded as natural, inevitable, or necessary.
6. See, for example, Cheng (Chapter 2, this volume).
7. Established in 1961, the OECD is an international institution, sponsored now by thirty member nations committed to democracy and the market economy, to help governments compare policy experiences, seek answers to common problems, identify good practice, and coordinate domestic and international policies. For more information, see <http://www.oecd.org>.
8. DeSeCo was led by the Swiss Federal Statistical Office, with additional support from the U.S. Department of Education, National Center for Education Statistics (NCES), and Statistics Canada.
9. After conducting an analysis of projects related to indicators of competencies conducted during the 1990s in OECD countries, the project commissioned a series of papers beginning with the concept of competence. Scholars from a number of disciplinary perspectives (anthropology, economics, philosophy, psychology, and sociology) were then asked to identify theory-grounded sets of key competencies, and policy-makers and representatives of leading social and economic institutions, including unions and business organizations, commented on the scholars' work. In addition, a country consultation was organized within the OECD to review national experiences in the definition and selection of key competencies and issues related to the development and assessment of competencies. Appendix A and Appendix B summarize this material. Two international symposia were held to provide an opportunity for reflection and dialogue among the research community, policy analysts and policy-makers at the national level, leaders in social arenas, and representatives of international organizations. The various contributions and the elaborated findings can be found in Rychen and Salganik (2001, 2003a) and Rychen, Salganik, and McLaughlin (2003). They are also summarized in OECD (n.d.). For more information, see www.deseco.admin.ch.
10. One helpful way to understand what is meant by a frame of reference is the following: "Every organization in carrying out its mission and role operates within a set of guidelines, a frame of reference against which it measures and weighs what it should be doing, what it is doing, and, finally, how well its accomplished tasks meet its criteria. In many cases, the framework is fully articulated and spelled out in directives or other pronouncements of the organization; in other instances, the history of performance stands as the object illustration, and little if anything is found in written, explicit form" (National Research Council, 1986, pp. 26–27).
11. For further details on DeSeCo's frame of reference, see Rychen and Salganik (2003a), primarily Rychen and Salganik (2003b), Rychen (2003), and Gilomen (2003a, 2003b), Rychen (2004), OECD (n.d.).
12. The term *skills* is often used in a manner similar to competencies; however, *skills* also carries meanings and connotations that are associated with reducing an activity into pre-defined steps or a low level of difficulty, which distinguish it from the notion of competence as a complex action system (Rychen and Salganik, 2003b; Weinert, 2001).
13. For a more detailed discussion, see Suárez-Orozco (Chapter 15, this volume).
14. For a fuller discussion, see Kegan (1994).

15. These are described in greater detail in Rychen (2003).
16. Such recognition was evidenced by concerns about identifying key competencies that would be relevant worldwide (Carson, 2001; Goody, 2001; Perrenoud, 2001).
17. DeSeCo's frame of reference's common normative starting point includes democracy, human rights, and sustainable development. The scholars who noted a need for these values included Carroll, Charfi and Redissi, Pigozzi, Reimers, and Rothstein and Jacobsen.
18. The only educational needs and approaches that these scholars mentioned that are not explicitly named as part of DeSeCo's frame of reference and its three categories of key competencies were (a) creativity and (b) seeking to optimize the components of the educational system such as management and administration, teacher quality, and teaching materials. These differences, however, do not compromise the applicability of DeSeCo's approach. Depending on how one defines creativity, it can be understood to be a product of acting autonomously and self-reflectiveness, or it can be easily accommodated within the prerequisites for each key competence. Optimizing the components of the educational system, on the other hand, is a strategy posited on the assumption that what is needed for quality education is to make the system work better. In an oversimplified fashion, this is to say, if teachers, principals, curricula, and school environments were of high quality, then student learning would be of high quality and the goals of education would be met. The DeSeCo Project, however, consistent with a recognition of the institutionalized nature of schooling and the recent discourse about outcomes, is based on the assumption that the strategy of optimizing the system is incomplete in what it can achieve and that if we are to achieve competencies for all, it is important to be guided by a comprehensive vision of these competencies.
19. The use of tools is so fundamental that since at least the eighteenth century (when Benjamin Franklin is supposed to have first suggested it) human beings have been defined by some thinkers as tool-using animals. This definition rests both on the mistaken belief that no other animal employs tools and on the fact that it is difficult to imagine any life that is human without the employment of physical, social, or mental tools (Sagan and Druyan, 1992, p. 390).
20. From one author's interview with the head of the Instituto de Cultura Maya in 2000 as part of an evaluation of USAID Girls' and Women's Education Activity Projects in Guatemala (Brush et al., 2002).
21. For a fuller explanation of this conventional notion, see Kitayama and Duffy (2004).
22. On challenges to the traditionally accepted practice of rape to secure a young girl's hand in marriage, see Wax (2004).
23. This section draws heavily on Salganik and Stephens (2003) and Trier (2003).
24. Ritchie (2001) suggests that businesses themselves do not practice teamwork, flexibility, and trustworthiness, which are characteristics they ask of their workers in the name of key skills or competencies. Both the business and labor perspective acknowledge that there is a tension between, on one hand, developing broad competencies that aren't applicable in specific jobs and, on the other, specific skills needed for a particular job but relevant for others.
25. Quotations from http://www.oecd.org/document/57/0,3343,de_2649_33927_34474617_1_1_1_1,00.html. For more information about PIAAC, see http://www.oecd.org/document/35/0,3343,en_2649_39263238_40277475_1_1_1_1,00.html.

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