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

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

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The Definition and Selection of Key Competencies in a Norwegian context

1 Introduction

Since the 1980s, the OECD has sought to expand learning outcome indicators to include competencies and skills that are not specific to particular subjects, but are of a more general and fundamental nature. The basis for these efforts is the view that education brings broader outcomes than factual, subject-related knowledge, in the form of skills and competencies that can be both developed and applied outside the educational system. The OECD's Definition and Selection of Competencies (DeSeCo) project was initiated in order to contribute critical reflection and theoretical analysis to support future OECD projects with a new type of indicators.

The documents describing the background for the project present two rationales for interest in broader definitions of competence, the first that of business and industry, the second a broader, social perspective. From an economic point of view, the competence of the individual is important in order to increase productivity and competitiveness, develop an adaptable, qualified workforce and improve the possibilities for innovation in a global economy.

From a broader, social perspective, competencies are regarded as important tools for increasing individuals' understanding of political issues and possibilities for participating in democratic processes, contributing to social justice and equality, and strengthening human rights and autonomy as a counterbalance to marginalisation and greater global differences in opportunities.

We refer to Appendix 1 for a more detailed description of the research questions posed by the project. The appendix will show that the project has two main areas of focus. Firstly, the programme aims to promote professional understanding of the concepts involved, and of how key competencies are developed and function. Secondly, the programme is based on the recognition that the definition and selection of key competencies take place in a broader social and institutional context in which values, political priorities and power structures have a controlling influence. DeSeCo seeks to provide greater insight into not only subjects and ideologies, but also how subjects and ideologies influence each other.

The purpose of the DeSeCo's Country Contribution Process (CCP) is to identify competencies that are highly relevant in and across a variety of social fields, and to identify the ways in which competencies are selected and the mechanisms behind such selection (see Appendix 2). Finally, the project is intended to provide feedback for DeSeCo as regards the programme's relevance for the various countries concerned.

2 Method and design of study

2.1 Preparation

After the Ministry of Education, Research and Church Affairs was requested by the OECD Directorate for Education, Employment, Labour and Social Affairs to participate in the project, the University of Oslo, represented by the undersigned, was asked to assist the Ministry in this

task. The project has therefore entailed cooperation between the undersigned and the Ministry. The Ministry has been responsible for inviting participants to contribute to what we chose to entitle a "call for ideas" relating to key competencies, while the undersigned was responsible for analysing and collating the responses that were received.

As the definition of competencies is an ideological and value-influenced activity, DeSeCo emphasises the importance of as many areas of society as possible being represented in the survey. The invitation was therefore sent to approximately one hundred persons in various institutions and sectors, requesting them to submit a written evaluation, a few pages in length, based on a translation of DeSeCo's guiding questions (Appendix 3). They were also sent Appendices 1 and 2 with the letter of invitation (Appendix 4). The participants were selected in such a way that, in sum, they would ensure breadth, while it was anticipated that each individual would be able provide a useful contribution. The common characteristic of the participants was their (assumed) interest in education and training.

The response rate was low; we received a total of 16 responses which answered the questions to a greater or lesser extent. The reason why so few responded may have been that the time-limit was relatively short. At the same time, it was a difficult task and for many people it may have been an unusual experience to be asked to think aloud without necessarily having the broad backing of their organisation. The task also proved to be interpreted in somewhat different ways. Several people regarded it more as a consultation paper than was intended. Moreover, several of the responses underscored how ideologically loaded this area is regarded as being (and actually *is*). This, in itself, is an interesting finding.

Despite the low number of responses, there was a great deal of variety of perspective and position in the ones that were actually received. We therefore believe that they are interesting contributions, although it may be argued that business and industry and the social partners (i.e. employers and employees) were under-represented.

This report is the result of a call for ideas where contributions were invited from a wide range of institutions and social fields. The contributors were promised anonymity in the report so that original views could also be presented without respondents feeling too restricted by current dogma. At the same time, it is important for the DeSeCo project to be informed about the content of school curricula and their implementation with respect to key competencies. The report therefore contains an addendum which provides a brief outline of the general curriculum and its implementation, based on contributions from the Ministry of Education, Research and Church Affairs.

2.2 The structure of the report

In preparing the report, the responses were entered into a qualitative data analysis programme so that they could be structured according to the guiding questions, and in order to find links between them. Nevertheless, this report largely allows the contributors to speak for themselves; since there were relatively few responses, the same position was seldom taken by more than a couple of contributors. There was consequently less need to synthesise the contributions for the purposes of presentation. Moreover this report does not have the ambition of fitting the various responses into a general model. We have, nevertheless, defined certain categories in connection with question 1A, "Which key competencies?", of which more later.

The choice of structure for the report is sometimes detrimental to the coherence of the individual contributions, particularly in the case of responses that have a holistic perspective and consist of a continuous argument that does not always address the guiding questions directly. However, we have tried to include the premises and refer to other parts of a contribution when necessary.

Several of the respondents have devoted a large part of their answers to criticism of the project. We have tried to make this clear, since we believe it is a valuable element of the feedback to DeSeCo. The criticism not only points to the problematic aspects of DeSeCo but also says something about the ideologically sensitive terrain in which the project is moving.

2.3 The respondents

In order to clarify who is quoted or discussed at any particular time, but to retain a degree of anonymity, the respondents mentioned in the report have been given different code names, and have been linked to various sectors as follows:

- Ministries A, B and C are government ministries
- PA represents the public administration (excluding the ministries)
- Training Councils A, B and C are training councils¹
- Academic Body A and Academic Body B represent academic employees in the university and college sector
- Research Institutions A and B are research institutions in the institutional sector
- The report also includes responses from two employees' organisations, and a special interest organisation linked to the college sector
- Employers' and other special interest organisations also responded.

The headings below follow the guidelines in Appendix 3, where the questions have been given in full.

3 Which key competencies?

In this part of the survey, we shall first address some of the premises upon which several of the contributors explicitly based their responses. Thereafter, the questions in Appendix 3 will be addressed in turn.

3.1 Definitions

Several respondents provide explanations, definitions or descriptions of the terms they use, or they describe how these terms are related to each other. This type of definition should be expected, since the concept of competence is unclear for several reasons, not least because the term has different meanings in different disciplines. "Competence" also has a tendency to have different meanings in daily speech and scientific usage. When we consider the various definitions together, the multiple meanings become obvious.

¹ The training councils comprise representatives of employers' and employees' organisations, and of educational institutions.

The descriptions contain a great deal of interesting material, but long theoretical discussions are beyond the mandate of this report. Nevertheless, this material provides a relevant context for the responses to the guiding questions and has therefore been briefly summarised below. The multiple meanings of the terms have also been addressed, to a certain extent, in the conclusion to the report, since we are fully aware that the report is a contribution to a further process in this direction.

Ministry A defines "key competence" as "competence that can be applied in many situations and social contexts. Competence refers to the ability to meet new, complex demands and challenges and includes both knowledge and skills, but also various aspects of self-awareness, motivation, emotions and other psychological and social characteristics."

One special interest organisation linked to the college sector describes a "key competence" as encompassing a value base, a normative aspect, a form of philosophy, either explicitly or implicitly. Moreover, key competencies are general in nature; they apply to all people in all places. Finally, key competence is associated with being mature or adult. The foundation for key competence is, naturally, laid in earlier years but, in this organisation's view, the concept is only fully valid and meaningful when the individual concerned has reached a certain level of maturity. In their response, they regard competence as being an individual quality.

The response from Research Institution A is a fairly long report based on a holistic view of learning and education. The core of this view may possibly be expressed by the sentence: "Education is a formative process when the various interpretative patterns, convictions, skills, values and forms of expression become the pupil's own."

Research Institution B refers to a competence model by Pralahad & Hammels and finds it difficult to divide the concept into an individual and a social component. It will be a matter of competencies that are collectively and organisationally based, but at the same time individual. From an individual point of view, it may be difficult to differentiate "special competence" in a particular area from a more aggregate key competence.

3.2 Which competencies?

3.2.1 Response categories

Most people had views on this question. The responses were, understandably, based on slightly different premises, and the competencies represented different cognitive areas and were specified to differing extents. The responses are, therefore, not always directly comparable. Nevertheless, we have tried to define some categories into which the responses can be placed. They are based on Franz E. Weinert's discussion of the various meanings of the term competence², and they also function reasonably well in relation to the respondents' answers. However, no effort has been made to make connections between them – the content of the categories differs too much for that. Any attempt to form lines of connection between the categories would require the development of a theoretical understanding of the connections between the various competencies, both within and across categories. This would lead too far in the direction of synthesis, which would conceal the lack of clarity that actually exists in the material, and it would create the impression that the dividing lines are clearer than they actually are. Moreover, this is one of DeSeCo's future tasks.

² F. E. Weinert, *Concepts of Competence*, 1999. Article prepared in connection with the first phase of DeSeCo. Cf. http://www.deseco.admin.ch/

The material must, largely, speak for itself. Consequently, the term "competence" will usually be used in the following instead of the more specific "key competency" so as not to create closer associations to DeSeCo's terminology than the responses give grounds for. The material sent to the respondents also confused the issue somewhat, since "key competency" was translated as both "nøkkel (key) kompetanse" and "kjerne (core) kompetanse" without any difference of meaning being intended.

An attempt has been made to sort the responses according to the following categories:

Concrete, specific competencies for a particular situation or task

This category comprises concrete skills that can only be applied across situations to a limited extent, but are specific to a particular task or situation.

Concrete, specific competencies that are generally applicable (basic competencies)

Here we mean skills that are specific and fairly concrete, which may be useful for many different tasks and in many different situations.

Metacognitive competencies

These competencies are on a level above the more concrete, specific competencies. Metacognitive competencies are less dependent on the situation and individual tasks, but are used to orchestrate more specific competencies. In this case, metacognition is limited to this definition and does not include different attitudes or personal qualities in the wider sense.

Personal qualities

In this category, we find answers from respondents who have imagined a competent person and then described this person, often in the form of what we call personal qualities. This category will overlap with the ones above, since in this case we will find more specific skills and metacognitive strategies as well as a variety of attitudes.

Adaptive competence

This category has been used to collate responses that were based on the ability to adapt in a changing society.

Cultural competence

This category covers responses that view competencies from a cultural perspective.

3.2.2 Summary of the categories

To a certain extent, there is a hierarchy from category 1 to category 4, from specific to increasingly general competencies. However, the decisive emphasis has been placed on the content of the respondents' answers. It has therefore been appropriate to establish categories 5 and 6 as well, since the perspective of these respondents had a fundamental influence on their contributions. We repeat that the categories are intended to be an aid and we have sought to avoid placing the responses in definite frameworks. They have been defined with a view to grouping, not as an attempt at synthesis.

The respondents' answers are given below.

Concrete, specific competencies for a particular situation or task

As may be seen from question 1D below, the possibilities for value creation are the fundamental perspective for Ministry A.

Ministry A maintains that it is important for a society to consist of work creators as well as workers. For this ministry, "entrepreneurship" is the fundamental concept. The term entrepreneurship is divided into two parts, the first of which is associated with a fairly concrete situation (the second is discussed under "personal qualities" below):

• Entrepreneurship is often associated with founders, i.e. people who want to start their own company or business. In this connection, entrepreneurial competence therefore has to do with the ability to run your own company.

Ministry B names several concrete competencies:

- Knowledge of your own and other people's rights, obligations, potential and limitations
- The ability to look after your own health
- The ability to make long-term financial arrangements to secure your life situation in case of illness, disability and old age.

Concrete, specific competencies that are generally applicable (basic competencies)

Ministries A and C and both employees' organisations maintain that basic competencies, in the form of reading, mathematical, scientific, ICT, foreign language and civic skills, are important competencies. Ministry B and Training Council B also mention access to and the ability to utilise important information and other "tools" (such as laws and PCs) that are used in interaction with others. Ministry B also mentions insight into fundamental mechanisms in civic life and interpersonal relationships.

Metacognitive competencies

Research Institution A is concerned with the competencies that are necessary to "navigate in the information age. Through communication, pupils' competence is developed, among other things the ability to think in terms of concepts, which makes self-reflection possible." This competence is important in order to "be able to communicate with other people through the new media that are changing our everyday lives". Problem solution ("problem-solving activity") combined with learning experience is also identified as a task for the schools of the future. One of the employees' organisations is also concerned that schools should encourage further learning and argues that pupils need knowledge of learning strategies and working methods.

Training Council A lists the following metacognitive competencies:

- Flexibility and creative thinking
- Holistic, inter-disciplinary understanding
- Analytical thinking

One of the employees' organisations emphasises these metacognitive qualities:

- The ability to sort impressions
- The ability to choose what is good for yourself
- The ability to develop and apply critical reflection
- The ability to receive new knowledge and make use of it in your own daily life
- The ability to develop social relationships
- The ability to integrate with other people from different backgrounds

Personal qualities

One of the respondents, a special interest organisation linked to the college sector, approaches competence as a form of general education (as opposed to "professional education, formal

vocational training and non-binding maturation"). It argues that the term "key competency" has a value base and that competencies are general ("they apply to all people in all places") and, in this context, regards competencies as something possessed by individuals. This response presents three areas of competence:

- 1 The individual's relationship with himself/herself (and his/her value base). This area includes aesthetic judgement, choices made on the basis of values, self-confidence and adaptive competence.
- 2 Interaction, i.e. communication and cooperation, also with technology.
- 3 The individual's relationship with society (local and global). This area includes the ability to take responsibility and to empathise with other people.

This respondent also presents an alternative model which differentiates between basic competence (languages, history, mathematics, ICT, etc.), occupational competence (vocational training) and general competence (the ability to communicate, social cooperation, participation in society, problem-solving, etc.). This alternative model must be understood to mean that the three points above and general education are included in general competence. One of the employees' organisation also links a set of competencies to general education, as something the pupil achieves through schooling, and writes that "Schools must have a broad, general educational purpose, and they must give pupils relevant and topical life orientation."

Ministry A links general qualities such as creativity, will, and the desire and ability to realise your own ideas and projects to the content of "entrepreneurship". Moreover, its response refers to the report of the European Commission on the quality of education in schools, which mentions "learning to learn". According to this ministry, the report emphasises the importance of helping people to:

- Become reflective, self-critical individuals
- Have access to tools that can help them to become more efficient and capable
- Be able to transfer skills from one context to another
- Be equipped to master new, unpredictable situations in the future

Training Council C had participated in a project on competence strategy, headed by a consultancy firm. On this basis, the council points to the following competencies as being highly relevant:

- The ability to make decisions
- Integrity
- Inspiring leadership
- Flexibility and creative thinking
- Result orientation
- Development of others
- Communication and influence

Ministry C mentions:

- Developing creative ability
- Curiosity about new research and development in your own professional field

• Being proactive, and initiating and influencing change and adaptation, rather than merely having the ability to adapt reactively.

A group of employers' and other special interest organisations stresses the importance of *curiosity*. This is a core competence that can be developed and is at the same time a prerequisite for other competencies, including the ability to act independently and reflectively. The ability to be flexible and "to adapt to tackle changing operating parameters" is also emphasised, as well as the ability to put yourself in another person's situation (empathy).

Ministry B also mentions empathy, respect for others, cooperation and responsibility.

Adaptive competence

Training Council A's approach to the concept of competence is: "Competence that is broad enough and specialised enough to provide a lasting basis for continuous learning and updating".

Ministry C mentions "adaptive competence/learning competence" in order to be able to "adapt within your own professional field, existing job/area of work, adapt to another professional field/occupation/job, and adapt from work to unemployment to new work". Ministry B mentions similar competencies.

Cultural competence

Academic Body B maintains that cultural competence is, perhaps, the most important competence, mentioning internalised language, knowledge and values in several areas. Their relative importance depends upon the area and group you grow up in. These competencies are generally important for the creation of identity and the ability to function in society.

Academic Body B also operates with a more specific form of cultural competence which enables a person to function in different cultures and across cultural borders ("intercultural competence"). If you are to be able to function in other cultures, you must be aware of the conditions that apply. As an illustrative example, this body mentions businessmen and women who attend courses to learn how to dress, talk and behave in other countries.

Research Institution B emphasises that teaching pupils to relate to problems and make their views known – but also to gain understanding and try to bridge the gap between their own and other people's views – is particularly important in Norway, which has an individualistic culture and is also a homogeneous society based very little on the exchange of cultures and opinions.

Are any of these competencies particularly associated with certain periods in life? This question was not answered by the respondents in concrete terms.

Are any of these competencies particularly important in Norway?

Ministry C maintains that innovative competence and the ability to turn ideas into projects that create value may be a decisive factor for Norway's ability to adjust from a petroleum economy to an economy based on other types of production.

As mentioned above, Research Institution B stresses the importance of teaching pupils to relate to problems and make their views known, but also to gain understanding and try to bridge the gap between their own and other people's views as being particularly important in Norway.

The rationale for identifying and selecting key competencies

Ministry A links the question of competencies to value creation, but recognises the importance of having a broader, social perspective on competencies.

- Individuals without sufficient key competence will more easily fall outside the labour market.
- A workforce with a high level of key competence is an important prerequisite for acquiring new knowledge. A workforce with a high level of key competence will thereby more easily adapt to the constantly changing competence needs of business and industry, and will lead to a more flexible labour market.
- The competence of individuals is also important in order to increase productivity and economic competitiveness.

Ministry C has a similar perspective, pointing to the need to prevent unemployment and maintain a high level of employment.

Ministry B points to the desire to ensure sustainable development, which requires the population to possess "participant competence" if it is to participate in the effort and influence the decision-making process.

The extent of correspondence with DeSeCo's three generic key competencies Ministry A largely agrees with DeSeCo's three generic key competencies, but has a few objections:

- "Acting autonomously and reflectively": the respondent puts more emphasis on the value base than DeSeCo has done.
- "Using tools interactively": is regarded as being unclear in relation to the respondent's more general communicative and interactive competence
- "Joining and functioning in socially heterogeneous groups": the main difference is that the respondent emphasises the importance of social responsibility and involvement, and is not content with the ability to function (without obligation) in complex groups.

Academic Body A discusses DeSeCo's three key competencies in its description of pupils' learning process, made concrete by project file assessment. Academic body A writes:

By participating in all these various assessment activities, pupils are trained to critically assess their own and others' working methods and products. This gives them insight into the variations in learning potential and learning results. This type of systematically designed education in new working methods, with subsequent assessment, should therefore be able to provide the basis for what the DeSeCo project defines as the key competency "Acting autonomously and reflectively". It is also natural that project work as a working method will promote the competency "Joining and functioning in heterogeneous groups", provided that there is emphasis on systematic training in cooperation by means of, for example, structured programmes for cooperative learning, and that some time is spent on assessing both the products of work and the work process.

Academic Body B includes its discussion of the three competencies in a more systematic criticism of DeSeCo. This criticism will be discussed later; in this connection, the respondent points out that you cannot speak of key competencies without at the same time explaining the cultural, ideological and value-related contexts in which the competency is to function. If this is not done, the concepts of competence may result in imperialism by the strong over the less strong.

One of the employees' organisations criticises the three key competencies for being too general and writes that:

DeSeCo has so far outlined three key or core competencies. These are formulated at a very general level. They say nothing about the basis for being able to act in the desired manner, in other words, what kind of knowledge should be emphasised. To a certain extent, this reflects the fact that [...] it is easiest to agree on competencies at a general level. If we go down to the level that concerns the basic knowledge that is required to achieve a desired competency, different historical and cultural traditions will determine where the emphasis will lie. Thus, the key competencies, as they are outlined, are also fairly lacking in content and you can put almost anything into them.

Research institution B also criticises the fact that they are too general and lacking in context, but also writes that "As guiding standards or goals, they (DeSeCo's key competencies) appear to be in agreement with international research on fundamental qualifications and qualities in today's working and civil life (in the western economy). Together, they indicate values such as having/taking social responsibility, contributing to general value creation, creating self-supporting institutions (economic and social) being able to participate in complex contexts (social, cultural, technical and organisational) and being in active, creative interaction with one's surroundings."

A special interest organisation linked to the college sector, Ministry B and training Council B also support the three competencies.

In conclusion on this question, we might say that the respondents largely support DeSeCo's three identified key competencies, but at the same time point out that they must be defined in more detail.

4 Assessment, indicators and benchmarking

This section concerns the amount of interest and attention that is devoted to competencies in a Norwegian context.

4.1 Whether key competencies are considered important in Norway

Academic body A believes there are indications that the Confederation of Norwegian Business and Industry (NHO) is far more concerned than before about pupils leaving school with something more than traditional learning. "This applies, not least, to qualities and attitudes linked to modern production, such as the ability to cooperate, the ability to adapt, creativity, performance orientation, etc." Academic Body A also maintains that a competence perspective has gained ground in the curriculum, and that it comprises three important characteristics:

- 1 From teaching to learning. Earlier curricula were concerned with what the teacher was to teach. L97 (and L94) focus on what the pupils are to *learn*.
- Moreover, these *learning targets* express ambitions for learning that reach far beyond the traditional domains of school subjects. The learning targets are a combination of traditional subject targets for knowledge and skills associated with the subjects concerned, and learning targets that link subject targets with targets associated with pupils' future functions in working life, society and family life. [...]
- It is expected that both pupils and the school be evaluated in relation to whether the targets have been *achieved*.

Academic Body A discusses characteristic 3) in more detail:

In the past decade, a great deal has happened in the field of pupil assessment. Schools have long traditions of measuring achievements in subjects, but is it possible to assess, with some degree of uniformity and certainty, personal functional targets, such as the ability to cooperate? In order to achieve this, we have distinguished between formal and non-formal assessment, where the latter may cover what we might call the new competence requirements.

Academic Body A also mentions project work as the classical example of this type of complex form of assessment, where the assessment will include both the final result and the process preceding the finished product. Another example is project file assessment.

Research Institution B touches on the same considerations as Academic Body A.

4.2 Qualification standards and assessment practices in business and industry

Ministry A maintains that key competence has become more important than before: "Certificates and testimonials provide the basis for invitations to come for an interview, but at the interview itself other qualities are decisive." Ministry C takes a contrary view to the ministry on this point, however, writing that:

There is little emphasis on these key competencies when hiring staff, in comparison with the emphasis there is on formal education and professional experience. They are taken for granted and are anyway difficult to measure, although attempts are made to measure them with the help of interview tests, etc. There is more emphasis on this type of competence, or the results of such competence, in systems for individual assessment in connection with wage settlements.

A special interest organisation linked to the college sector is sceptical about including the key competencies in an external, "official" assessment system. Since they are general, they should not be linked to qualification standards and placement levels in business and industry, for example. This organisation takes the view that we should rather consider some kind of self-assessment. Training Council A is also sceptical about general qualification standards.

4.3 Norway in international comparative studies

Academic Body A believes that international comparative studies have had little to do with the assessment of competence because they almost exclusively measure subject knowledge and skills, with a few exceptions, and mentions the CIVIC³ studies. Academic Body A takes the view that the CIVIC studies may entail a re-orientation as regards what such studies may concern. In this body's view, the problem is that this project has not solved the basic problem of measurement either, i.e. by developing clearly defined competencies and criteria for assessing them. Academic Body B has a similar opinion, believing that poor results in such tests are explained by the fact that too little reading or maths has been done; you seldom hear people say that not enough has been done to train general skills.

³ The Civics in Education Study is a recently-completed international research study aimed at investigating education in democracy in the more than thirty countries that participate and defining the democratic status of 14-15-year-olds in these countries. See http://www.ils.uio.no/forskning/civic/index.html for more information.

5 Public debate: negotiation and legitimisation

DeSeCo stands for Definition and Selection of Competencies. While Question 1 concerns which competencies are to be important ('definition' in a certain sense), this section concerns the kinds of topics that have been debated and where such debates have taken place. What are the most influential positions, and who supports them?

5.1 The debate on key competencies in Norway

Academic Body A is the only respondent who really discusses this question explicitly. This group refers to its views on other questions (the competence perspective of the curriculum and pupil assessment) in areas where there has been debate in Norway. Training Council B mentions the project *Verdi-og samlivsopplæring i videregående skole* (Education in values and coexistence in upper secondary schools) 1999-2001 (The National Education Office in Aust-Agder) in this connection.

5.2 The degree of consensus

Academic Body A touches on the degree of consensus in its response and writes that:

Some of the participants in the debate are still embroiled in the old conflict between academic rationalism and educational reform, while the curricula have tried to rise above this conflict. An increasing number of special interest groups have accepted that the task of schools must change in relation to the complex society we live in. There appears to be a great deal of agreement that some of the new competence requirements must be included in the school curriculum. For example, it appears that most of those who have stated their opinion about compulsory project work regard it as a positive change. The disagreement becomes apparent when the new competence requirements are to be implemented in the form of new assessment requirements for schools, with respect to both the assessment of pupils and the assessments of schools.

Academic Body B points out that the competence debate in Norway has one common characteristic: it takes place in a context where the question is how a person can function well in society and how society can be further developed. The debate has also largely been linked to specific subjects or situations and has to only a minor extent been abstracted beyond concrete knowledge, skills and attitudes. Another characteristic of this debate is the focus on teaching methods, where there is increasing emphasis on the pupil's own activity in relation to the teacher's teaching activity.

Training Council A believes that there is:

A large degree of agreement between the social partners on the main aspects of competence needs, while at the same time fundamental disagreement has become apparent between the social partners and the education authorities concerning the best way of achieving such competence. In vocational education, the social partners must define the premises for determining competence requirements.

Research Institution B believes that "as of today, it may appear that the social partners primarily wish to promote indicators/methodic development (on the basis of market considerations), while the Ministry of Education, Research and Church Affairs, to an equally great extent, appears to

stress framework factors and the development of principles (in relation to the learning environment/learning considerations)."

5.3 Is there a legitimate basis for establishing a list of indispensable key competencies?

Both Ministry A and Academic Body B largely reject a list of this nature. The ministry believes that ranking will be difficult, partly because the need for key competence changes when the need for competence changes, and partly because the various key competencies are linked to each other. (This response does not consider an *unranked* list.) Academic Body B believes that a list cannot be established because there will never be agreement about what has cultural value. Implicitly, however, Academic Body B appears to believe that some competencies are culturally neutral, since it maintains that there must be focus on how people will function in the encounter with different cultures, mentioning the ability to cooperate, cultural insight and cultural knowledge as being important competencies.

6 Key competencies and education

6.1 Are key competencies an issue when the educational system is discussed?

Academic Body A believes that:

There is little doubt that people in Norway have become increasingly concerned about the new competence requirements since they were first formulated by the Blegen Committee in the early 1990s (Official Norwegian Report 1991:4). One possible objection here may be that the term 'competence' was little used in L94 and L97, but as we interpret the understanding of learning in the two curricula, they often coincide with the understanding inherent in the DeSeCo project, which we described above as the competence perspective of the curricula.

This body also takes the view that too little has been done to follow up the work of the Blegen Committee. See also its response to Question 2A.

5.2 The role of schools

With a couple of exceptions, the respondents did not address the role of schools in relation to other institutions, agencies or arenas with respect to the development of key competencies. One of the employees' organisations points to the importance of not placing too much emphasis on informal arenas, as this may undermine the basis for the national educational institutions, which may in turn reduce the right of particularly weak individuals to free, high quality education. Another employees' organisation believes that the term 'equal value' has acquired a new, unfortunate meaning between the 1987 curriculum (M87) and the 1997 curriculum (L97), since the term previously meant that all pupils were to receive education adapted to their needs, while 'equal value' now has to do with all pupils participating in our common knowledge and cultural heritage. In this organisation's view, this has negative consequences for pupils' possibilities for developing key competencies:

When the subject curricula become as detailed and standardised as in L97, pupils do not have the same possibilities for utilising their abilities. Consequently, they do not all have the possibility of fully developing their potential competence either. In our view, therefore, the school curriculum should provide relatively broad frameworks for the learning process, with corresponding freedom of action for teachers, and teachers should be responsible for adapting their teaching to a variety of needs.

Academic body A is concerned about how competence is to be measured and assessed in schools:

The problems relating to more objective measurement of work processes in schools have not been solved satisfactorily, although there are a variety of subjective methods of assessing such processes, such as what the teacher can convey in conversations with individual pupils, the use of questionnaires, interviews, etc. In working life, various instruments are increasingly used to measure competencies and qualities when recruiting staff. Whether or not similar instruments can or should be developed for use in schools is a major topic of debate. The main criticism from the schools' point of view is the question of whether such instruments are reliable enough in relation to the demands that must be made with respect to, for example, the legal status of marks, and whether the use of such instruments may distract attention from the subject requirements that must always provide the basis for all other forms of assessment.

7 Assessing and developing DeSeCo

In this section, the respondents' answers will first be linked to Question 5B, "What are, in your view, the highlights and critical issues in the main findings of DeSeCo so far? Do you consider these findings relevant in your national context?" However, several respondents criticise DeSeCo on a more fundamental level, related to ideological and epistemological principles. This criticism goes deeper than views about DeSeCo's main conclusions, and will be discussed in a separate section. Finally, we present Norwegian suggestions that may contribute to the effort to define key competencies.

The respondents did not mention specific initiatives similar to the DeSeCo programme in Norway. Perhaps there is some confusion about what is meant by 'similar'. Question 5C has, therefore, not been specifically addressed here; the answers to this question have already been given under 5B and in the responses to certain other questions.

7.1 The best and worst aspects of DeSeCo: advice and criticism

Academic body A maintains that it will be a challenge for DeSeCo to arrive at measurable competencies of predicative validity. If we wish to measure the competence of individual pupils in various areas, there will be forceful demands for this to be done.

Academic body B takes the view that there can be no doubt that DeSeCo's three key competencies touch on three crucial areas. However, this body is concerned about what he calls a positivistic view of knowledge and science (more of this below).

One of the employees' organisations points out that an international effort such as DeSeCo must not result in national institutions having less influence on education policy. Moreover, the programme lacks a holistic perspective and emphasis on values other than the instrumentally useful, and this organisation would like to see the broad Norwegian perspective on education and competence included in the DeSeCo programme. With this reservation, it fully supports DeSeCo's efforts and supports the inclusion of key competencies in the OECD's comparative analyses. This may have the effect of improving the quality of Norwegian education.

Ministry A sees a connection between value creation and competencies, and is highly interested in DeSeCo. This ministry believes that DeSeCo is clearly relevant to its own work on competencies aimed at value creation.

7.2 Criticism of DeSeCo's premises

In the criticism below, there is a certain connection between the criticism of a positivist view of knowledge and the concern that international, "global" solutions will push aside local and contextual solutions in education policy. As a gross generalisation, what are regarded as global and non-contextual models, supported by cognitive psychology and quantitative data, are regarded as being "positivist", in contrast with a view of knowledge that emphasises the concrete, local and special, where efforts are made to understand the interaction between the individual and a broader, social context with the help of qualitative studies.

To be more specific, it is a criticism of implicit views about – and ideologies concerning – pupils, society and the fundamental purpose of schools. This criticism has clear parallels to (and partly repeats) the criticism expressed in the written contributions from various disciplines presented at the international conference in Neuchâtel in 1999⁴. This criticism also influenced the debates at the conference.

7.2.1 Positivist views of knowledge and science

As mentioned above, Academic Body B criticises DeSeCo for formulating competencies in a non-contextual perspective:

This means that these competencies exist independently of the context in which the individual functions. This may be interesting enough, but it provides fairly limited information, and the responses will be of relatively little value. There is a fairly close parallel with many of psychology's concepts from earlier epochs. In that case, efforts were made to define human beings independently of their social and cultural context, and in a historical context this had negative results. All human qualities, abilities, competencies, etc. are closely interwoven with the context in which the person exists, and cannot be defined independently of it.

Research Institution B offers a related criticism, pointing out that DeSeCo deals with relational matters but focuses on the individual level. Research Institution B states that "The conditions for developing relational competence are always of an organisational, social nature" and believes that DeSeCo's "standardisation at the individual level appears to be both 'abbreviated' and inconsistent. The explanation (or definition) of qualities at the individual level of relational matters/categories is logically contradictory and tendentiously self-destructive".

⁴ The contributions are available on http://www.deseco.admin.ch/ and discussed in Knain, E. (2000) Definition and Selection of Competencies (DeSeCo): Status og videre planer (Status and further plans). PISA Report No. 10, ILS, University of Oslo.

7.2.2 Differences between educational systems and standardisation

One of the employees' organisations takes the view that "the approach appears to be instrumental. The purpose of learning is mastery and usefulness. The intrinsic value and formative nature of learning are placed in the background. Moreover, there is little emphasis on values and ethical reflection as a basis for action. This underscores the technocratically-influenced usefulness perspective."

This organisation also points to an international trend to develop indicators to compare education in different countries:

In addition to the comparative perspective, another objective is for this to result in the content, emphasis and organisation of education in different countries becoming more similar. In a world with a high level of mobility, this is regarded as being useful and necessary, both in an economic context and for the individual. The OECD's efforts to define and select key competencies must be regarded as a stage in this development process.

This is a trend that [we] largely support. We would, nevertheless, like to point out that this may have unfortunate side-effects. It is not easy to define "universal" key competencies, when you take into account the historical and cultural differences that are also reflected in countries' educational systems. For example, there is a considerable difference between Nordic and continental educational traditions. In brief, this is partly related to the emphasis on "soft" and "hard" values in education. The result may then be that the key competencies we agree on are either so vague and general that they have no value, or that one educational tradition becomes dominant.

The same organisation is concerned that the assessment and comparison of competencies may have consequences for which competencies are regarded as being important. If only competencies that are easily measured are to form the basis of comparison between countries, this may result in only these competencies being considered important.

Research Institution B touches on the same theme in:

. . . the liberation of goals: goals and means change places, the result indicators become potentially self-sufficient. More than contributing to (or facilitating) increased value creation, democratisation and knowledge production, the stage is set for a new monoculture and the submission of results. The homogenisation of standards and indicators may generate growth in a global education market, but it may also limit the national, cultural and individual prerequisites for innovation and learning. The ideal goals may tentatively be emptied of content. Instead of diversity and variety, we will end up with "more of the same". In the final instance, an educational spiral of this nature will entail competition in terms of price rather than education and knowledge.

7.3 Norwegian initiatives that may advance work in this area

• The project *Med folkehøgskole i CV: Dokumentasjon av realkompetanse* (With the folk high school on the CV: Documentation of non-formal competence) – in cooperation with VOX and the Non-Formal Competence Project – is an ongoing project that aims to define a set of concepts that will be useful in the debate on key competencies. The project aims to provide a mechanism for defining and selecting "what really counts" in the field of key competencies.

• "Documentation and resolutions that provide the basis for the competence reform which has, among other things, given adults rights and opportunities to have their non-formal competence documented, complete their upper secondary education and gain access to higher education on the basis of non-formal competence. For example, we might mention Official Norwegian Report 1997:25 *Ny kompetanse* (New Competence) and Report No. 42 to the Storting (1997-98) *Kompetansereformen* (The Competence Reform), which also contain descriptions of the need for competence in Norwegian working and civil life and the importance of individuals having possibilities for updating and developing their competence throughout their lives (lifelong learning). We believe that terms that are often used in these contexts, such as subject competence, methodic competence, learning competence, social competence, etc. will be relevant contributions to the DeSeCo project. We also believe it to be relevant that the competence reform in Norway has broad support among key players, authorities, politicians, the social partners, etc. on the basis of a common understanding and recognition of the competence situation, needs and future challenges in Norwegian and international working and civil life."

8 Summary

Below are some concluding comments to Question 1, concerning particularly important competencies.

8.1 The term 'competence'

8.1.1 Different meanings

If we study the different contexts in which the term "competence" occurs, it becomes clear that the various contributions encompass different views of competencies in several dimensions. The various definitions of the term include:

- Action competence
- Special competence
- Overall competence
- Joint competence
- Non-formal competence
- Subject competence
- Adaptive competence
- Basic competence

The various types of competence are distinguished from each other in terms of the degree to which they are independent of the situation (total competence more general than special competence?), "pure" cognitive competencies, or interaction between cognition and the affective aspects (action competence more than subject competence?). As already mentioned, no effort has been made to find underlying connections between the terms. A kind of categorisation was carried out under Question 1A, which was linked to how specific the competencies were, the cognitive "level" and fundamental perspectives. It thereby mixes several aspects.

There are several ways of putting different approaches to competence into words. Some of the respondents say something about what competencies *are*. These are, perhaps, the "strongest" definitions. Some describe the *characteristics* of competencies, or the qualities *possessed* by competent people. This is, perhaps, a slightly more cautious approach, since it is not as necessary to define "competence" *per se*. Some are more concerned with what *leads to* competence. Others start from a *model* (where competence is usually a relational quantity, between the individual and society), so that the concept is defined in terms of relationships between other concepts. Without taking a stand on what is the "correct" approach, this illustrates the challenge of trying to understand the similarities and differences on a more fundamental level.

8.1.2 Individual and relational competence

Another possible way of grouping competencies is to define the extent to which they are "individual" or what we have called "relational".

Individual competencies are not dependent on others, on social relationships or institutions. Of course, they may be influenced by and have consequences for their surroundings, but they can be understood and investigated as qualities of the individual. Examples might be the ability to think critically or to read, or the degree of a person's motivation for a particular task.

Relational or social competencies are competencies which have little meaning if the individual is removed from a social context. Individuals certainly possess these competencies, but they are only relevant – and must be investigated – in a broader social context. Examples of relational competencies include the ability to lead a working group, to empathise with others or to exercise social rights. As well as grouping competencies according to type, it is also possible to distinguish between relational and individual perspectives and theoretical frameworks (cognitive psychology as opposed to anthropology, for example). The categories below are primarily an attempt to group the various competencies referred to in the respondents' answers according to type.

Relational, social competence

- The ability to develop social relationships
- The ability to integrate with other people from different backgrounds
- Interaction; communication and cooperation
- The ability to take responsibility and be involved in other people
- The development of others
- The ability to adapt in order to tackle changing operating parameters
- Empathy, respect for others
- Inter-cultural competence; languages, knowledge and values (depending on the group and the area)
- The ability to bridge the gap between your own and other people's views; take a stand and make your own views known
- The ability to undertake long-term financial arrangements to secure your life situation

Individual competence

- Knowledge of how to run your own business
- The ability to look after your own health
- Knowledge of your own rights and the rights of others
- Flexibility and creative thinking
- Holistic, inter-disciplinary understanding
- Analytical thinking
- The ability to sort impressions
- The ability to do what is good for oneself
- The ability to develop and apply critical reflection
- Aesthetic judgement, choice on the basis of values
- Gain access to tools that may help you become more efficient and capable
- Transfer skills from one context to another
- Integrity
- Inspiring leadership
- Result-orientation
- Curiosity

8.1.3 Competencies in relation to sectors

It will obviously be relevant to link the various responses to the guiding questions to various social areas by outlining the respondent's association with a particular sector at the beginning of the report. Is there a connection between the sector or the type of institution to which a person belongs and his/her views on competencies? Due to the low response rate, however, particular views should not be regarded as being representative of a particular sector (in any case, the sample was not selected with a view to its being representative in the statistical sense).

9 Annex

9.1 Key competencies in the Norwegian Core Curriculum

As a final remark we observe that few respondents referred to the Norwegian Core Curriculum when treating the question of key competencies in a Norwegian perspective. This may be due to the fact that the terms 'key or core competencies' are unusual in the Norwegian school discourse and that an attempt to gather the different knowledges, skills and attitudes in one single notion would reveal both professional and ideological disagreement. But many of the compulsory objectives in the Norwegian school may none the less be characterized as development of what OECD labels 'key competencies':

Education must ensure both admission to present-day working and community life, and the versatility to meet the vicissitudes of life and the demands of an unknown future. Hence it must impart attitudes and learning to last a life- time, and build the foundation for the new skills required in a rapidly changing society. It must teach the young to look ahead and train their ability to make sound choices. It must accustom them to taking responsibility - to assess the effects of their actions on others and evaluate them in terms of ethical principles. (...)Education must spur students to diligence and to close collaboration in the pursuit of common goals. In must foster miens and manners which facilitate the achievement of the results they aim at. (*Core Curriculum for Primary, Secondary and Adult Education in Norway*, The Royal Ministry of Education, Research and Church Affairs, 1994, p. 5)

The Core Curriculum describes the objectives the student is supposed to work towards in a frame of six different "types of human beings" which are constituent parts of the so-called Integrated Human Being. Broad competencies are necessary to create an Integrated Human Being.

The study programs with objectives and learning goals incorporate and build on the values and the cultural foundations laid down by law and the Core Curriculum. The common content of the study programs has been designed to ensure that education and training should promote the development of:

9.2 The spiritual human being:

- Familiarity with Christian and humanistic values
- Awareness of cultural heritage, identity and local traditions
- Meet other cultures openly
- Respect and knowledge for other religions and faiths

9.3 The creative human being:

- Develop creative abilities and critical sense
- Find new solutions to problems
- Be able to use scientific thinking and methods:
- The ability to wonder, to pose new questions, to invent possible explanations and to test one's explanations

9.4 The working human being:

- Learning and work habits
- Learning to learn
- Responsibility for own learning
- Plan and organize own work and learning process

9.5 The liberally-educated human being:

- A sound foundation of knowledge and broad frames of reference
- The ability to organize knowledge
- Methodological skills
- Respect for facts and sound argument.
- Familiarity in using information technology
- Internationalization and appreciation of tradition
- The ability to acquire and attain new knowledge
- Entrepreneurial skills

9.6 The social human being:

- Trust in own abilities
- Communication abilities
- Co-operation, team-work
- Solving conflicts
- Social responsibility
- Concern for others
- Know rights and duties
- Take responsibility
- Develop independent and autonomous personality

9.7 The environmentally aware human being:

- Joy of nature and physical activity
- Awareness of nature
- Awareness of environment and conflicts of interest
- The paramount concern is that education and training should stimulate the development of the whole person The integrated human being.

To ensure the implementation of these objectives the Norwegian Ministry of Education has introduced cross-disciplinary project work as a compulsory part of education. According to the Ministry this method develops important skills, such as co-operation, creativity and analytic thinking. All the pupils and students are to take part in the planning and the implementation of the teaching, both with regard to the choice of working material to be used, teaching methods and forms of assessment. By issuing "ICT in Norwegian Education - Plan for Action for 1996-99" the Ministry has underlined the importance of giving extensive and systematic emphasis to information technology in Norway's educational sector.

As a part of the school reforms in the nineties a general guide was designed – simply called "The Guide" – that is of interest from the perspective of key competencies. "The Guide" is addressed directly to students in upper secondary education as an attempt to make the students more aware of their responsibilities and possibilities in their role as active learners. It is supposed to encourage students to analyze and integrate the Core Curriculum's broader concept of knowledge into course and subject related contexts. Students are invited to discuss the principles of the objectives-based study programmes and to suggest ways of developing cross-curricular competencies.

As for the assessment of the cross-curricular competencies, the regulation stipulates a pupil's/student's right to individual, non-graded assessment. This form of assessment is seen as a tool for students to monitor their own progress without the possible de-motivating factors of a graded scale. Moreover, it enables students and teachers, ideally as peers, to discuss the learning process in according to cross-curricular themes and competencies. The students are supposed to get marks only when the cross-curricular competencies or themes are subject related and specified in the study program objectives.