

Switzerland

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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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1 Introduction

With this contribution, Switzerland demonstrates its willingness to participate in the 'Country Contribution Process' (CCP) of the DeSeCo project, following the invitation sent to OECD member countries in letters from the OECD (DEELSA) and the Swiss Federal Bureau of Statistics (21 December 2000). The structure of the paper will follow the 'guiding questions' at the beginning of the report.¹

The report is based on the following:

1. On 21 and 22 June 2000, a 'Swiss DeSeCo symposium'² with 73 participants from different areas of education, research, politics and business was held in Neuchâtel. The object of the symposium was: to promote active participation in the discussion of the concept of competence, to devise a list of key competencies in various areas of life and to discuss possible ways of measuring and using these competencies.³ Some of the findings of the symposium are available on the Internet.⁴
2. As a complement to the symposium, detailed interviews were carried out with nine figures from business, politics, and the educational sphere.⁵ The talks were based on the 'guiding questions' of the international 'DeSeCo Country Contribution Process', which also provided the basis for this report.
3. Additional documentation, which will be presented in the text.

The structure of the Swiss report follows the sections of the 'Guiding Questions, Country Contribution Process', the questions being placed at the beginning of the sections.

2 Which Key Competencies

- Which competencies (or sets of competencies) have been identified or discussed as necessary for individuals to cope with important demands and challenges in particular social arenas (such as the political and civic sphere, business and labor, family) or for a successful life in general? Please focus on developments in the sector you work in.

¹ Cf. also 'DeSeCo Contribution Process (CPP) Background Note, BFS / OECD, December 2000. (http://www.statistik.admin.ch/stat_ch/ber15/desecco/desecco_country.htm)

² Those responsible for the organisation of the symposium were the Federal Statistical Office, das Kompetenzzentrum für Bildungsevaluation und Leistungsmessung an der Universität Zürich, and die Universität Neuenburg, Psychologisches Seminar.

³ DeSeCo Symposium Schweiz, 21. and 22. June 2000, Programme, S.3

⁴ www.statistik.admin.ch/stat_ch/ber15/desecco

⁵ Those interviewed were: Hans Ambühl, Generalsekretär der Schweizerischen Konferenz der Kantonalen Erziehungsdirektoren (EDK), Martine Brunshawig-Graf, Présidente du Département d'instruction publique, Genève, Urs Grob, Forschungsbereich Schulqualität und Schulentwicklung, Pädagogisches Institut der Universität Zürich, Ulrich Klöti, Direktor des Instituts für Politikwissenschaften der Universität Zürich, Jacob Limacher, Direktor AKAD-Holding AG, Katharina Maag-Merki, Leiterin Forschungsbereich Schulqualität und Schulentwicklung, Pädagogisches Institut der Universität Zürich, Johannes Randegger, Nationalrat, Präsident der Kommission für Wissenschaft, Bildung und Kultur (WBK) und Direktion NOVARTIS, Ursula Renold, Vizedirektorin des Bundesamts für Berufsbildung und Technologie (BBT) und Direktorin des Schweizerischen Instituts für Berufspädagogik (SIBP) and Martin Wirth, Leiter Ausbildung, Direktion der Schweizerischen Bankiervereinigung.

- Are some of the key competencies identified/discussed specifically related to different periods in life and age groups or are they universally applicable? Which ones? Please explain.
- To what extent do the identified/discussed key competencies correspond to DeSeCo's three generic key competencies?

This part of the report is based on six projects of different size and an overview of the key competencies⁶, mentioned by the experts, and presented in detail in the Annex. The projects referred to all arose in close connection with the general or vocational education system. There is clearly a growing willingness on the part of the internal culture of education to seek more openness to and greater interaction with business and society.

The initial impetus to a renewed⁷, growing public interest in the overriding objectives of education and cross-curricular competencies – though they were not so designated at that time – started in Switzerland with the curricular reforms in education during the seventies. With the pioneering work of Robinsohn⁸ there was a demand in Germany for rational, ideologically neutral discussion on the goals and content of the curriculum and in particular on their prescriptive-normative dimension. Thereupon there began an educational policy debate in Switzerland on the guiding objectives and content of syllabuses, which is still going on today. The policy dimension of this debate has been expressed programmatically by Künzli⁹ in a manner that reflects not least Swiss tradition: "What is to be taught and learned in school, is the subject of a broad cultural dialogue about values, norms, traditions, future prospects and expectations, about what man needs to get by in life and at work, what guarantees individual and collective survival according to prevailing opinion for future generations, what the latter should know of their own past and that of others, so that they can interpret this relationship to themselves and to these others in an appropriate way. From this point of view, work on syllabuses is also work on one's own identity and bearing in mind the national composition of modern society, 'work on the national memory'."

In Switzerland account has been taken of the need for an explicit formulation of overriding educational objectives in syllabuses with the creation of an intermediate level between the very binding and generally observed 'Zweckartikeln'¹⁰ (objectives provisions) of educational law and the subject syllabuses through 'guiding ideas' or 'models'. Models reflect educational ideals¹¹, but they should also serve first and foremost as a basic guide for devising cross curricular syllabuses – and hence for what is taught in schools. The first instance was in 1984 with the 'guiding ideas for the secondary school' of the Ministers of Education of Central Switzerland (IEDK) which adopted Roth's¹² triad: individual competence, social competence, and factual competence as its basic structure. It is interesting to note that, although a discussion on key competencies in

⁶ Key Competencies refers to competencies of central importance in the social or individual sphere. In the context of this report we do not concern ourselves with the problem of concepts, which is fully dealt with in other areas of the DeSeCo project.

⁷ This level of public interest in policy had been very much in evidence in the years when the *Volksschule* was founded in the middle of the XIXth Century, but died down once it had become firmly established.

⁸ Robinsohn, S.B. (1969) *Bildungsreform als Revision des Curriculums*, Berlin: Luchterhand

⁹ Künzli, R; Bähr, K; Fries, V-A; Ghisla, G; Rosenmund, M; Seliner-Müller, G. (1999) *Lehrplanarbeit, über den Nutzen von Lehrplänen für die Schule und ihre Entwicklung*, Chur / Zürich: Rüegger, P.16

¹⁰ short legal texts setting forth the (political) duties of the school.

¹¹ Cf. Fries, A-V.: *Lehrplantypen der Schweiz*, in Künzli, R & Hopmann, P. (1998), *Lehrpläne, wie sie entwickelt werden und was von ihnen erwartet wird*. Chur/Zürich: Rüegger, P.258

¹² Roth, H. (1971) *Pädagogische Anthropologie: Band II: Entwicklung und Erziehung, Grundlagen einer Entwicklungspädagogik*. Berlin: Hermann Schroedel.

vocational education was started fairly early with first results only in recent years. In general education, the development of models as a basis for syllabuses in Switzerland has hitherto been from the bottom of the educational path upwards: primary school, secondary school, high school (middle school), higher education.¹³

In the view of Switzerland, it is neither reasonable nor possible to combine the projects described in detail in the annex with expert opinions to form an 'integrated' model of key competencies. Some points of emphasis nevertheless come to mind:

1. Two of the plans presented: the synthesis of the target dimension of syllabuses (in the framework of the YAS Project) and the decree on the recognition of the *Maturität* (school leaving certificate at the end of higher secondary education) only refer indirectly to competencies as a central theme when describing the overriding goals of education. Three others deal more explicitly with key competencies, but these too have been drawn up in terms of the educational system and educational processes – in this case upper secondary education and vocational education. In any case they chiefly address the actual workplace needs of those to be educated whether in present or future fields of activity. The YAS project is the only one presented in the annex to be geared explicitly to the assessment of central competencies of adults at national level.
2. The strong link between thoughts about key competencies and the educational system finds an echo in the firmly held conviction that key competencies can only ever be learned and exercised in association with practical, specialised knowledge and capacities. This limitation is emphasised not only in respect of the underlying concepts of vocational education but also those of general education. But at the same time the strategic significance of cross-curricular competencies has been increasingly observed and recognized in Switzerland over the past twenty years; these competencies are simply regarded as being unlearnable 'in themselves'. Learning strategies can only ever be tested and learned in relation to a specific object of learning - but only when the learning processes and methods are themselves made into objects of learning, when, in other words, they are considered meta-cognitively.
3. The convergence of the concepts presented is decidedly greater than the divergence. This is true both of the projects and of the expert opinions from various sectors. We might even go so far as to say that in terms of 'naming important competencies'¹⁴ hardly any divergence is apparent.
4. 'Competence for action' turns out to be a central concept in the Swiss discussion on overarching objectives. The terms of the concept are normally differentiated in such a way that it is understood to be more than a tautological notion – to the effect that every competence presupposes an action. The interpretations of 'competence for action' in the various programs and statements come very close to the ideas of the generic DeSeCo competencies of the 'autonomous actor'. The autonomous actor is characterized by independence and responsibility, social awareness, objectivity and self analysis.
5. It is also fully accepted that learning is a core competence, which is not automatically transmitted in the course of the learning process, but which must be specifically imparted and acquired. The concepts of competence and the statements of experts show that more is involved here than the chanting of magic formulae about 'learning to learn' and 'lifelong learning'; moreover, there is increasing awareness that education is failing in its most urgent duty if it is not imparting the competence to learn or encouraging and providing the capacity for autonomous learning.

¹³ Period 1970 to today. In Swiss higher educational establishments the term 'Vision' is normally used instead.

¹⁴ They could of course emerge at the level of the interpretation of competencies, but discussion of this would go beyond the scope of this report.

6. Competencies in the field of ‘methodological competencies’ are cited fairly frequently, particularly in the context of vocational education. For the most part these are not seen in purely technological terms but rather as a way of linking knowledge, capacity and motivation. Understood in this way, methodological competence is the competence to use the most appropriate means in a particular task domain in a targeted, committed manner. Here too a correspondingly higher status is given to orientation skills and specialized knowledge.
7. Competences in the political field have been widely referred to and evaluated, though significantly less – if at all – in the concepts of the institutions of general education¹⁵. The resulting deficiencies have already been established many times.¹⁶ With respect to the demands made of citizens by the direct democratic process in Switzerland, this is still rather surprising.
8. In the concepts and references the following areas of competencies are also referred to – to a rather limited extent:
 - general value orientations
 - creativity, aesthetic and general cultural competencies,
 - inter-cultural competencies.

It is worth noting that in multicultural Switzerland intercultural competencies have not been referred to more explicitly or more insistently. Linguistic competencies are certainly required but these are at best a vehicle for inter-cultural competence.

9. There is also little mention of intra-personal and interpersonal competencies in the private sphere, in physical and sexual matters, family relationships, friendship or parenthood, for example. But this may also partly lie within the compass of this report.

To sum up this part of the report 'Which key competencies?', it can be said that, from the standpoint of the Swiss projects and experts, the autonomous, capable adult, properly oriented and able to learn, is given prominence chiefly in his role as a worker and citizen. These roles are regarded as multi-layered and comprehensive: specialised ability is still favourably viewed, as are equally individual competencies: team spirit, willingness to innovate, the ability to learn and autonomy. The general picture corresponds quite closely to the ‘generic key competencies’ as described hitherto by the DeSeCo.

The 'preferred key competencies' presented in this chapter may well display distinctly 'Swiss' characteristics; however, it is characteristic of the Swiss situation that none of our partners in the discussions nor any of the speakers expressly stated or mentioned a ‘Swiss point of view’. It is somewhat alien to the Swiss national consciousness of today to consider the Swiss position ‘at national level’.¹⁷ Switzerland is either too small or too extensive; it is a small state, but one that is rich in terms of diversity of language, regions and cantons. Whatever a resident of Geneva, Basle or Appenzell might be, do or know, there is scope for discussion.

¹⁵ In the curriculum analysis of Grob & Maag-Merki this target features in the third of four areas. The current position refers however to a few cantonal differences.

¹⁶ Oser, F. & Reichenbach, R. (2000) *op cit*; Klöti, U. & Risi, F.-X. (1991) *op cit*

¹⁷ This is quite different in other countries – we need only consider the 'National Educational Goals' (1991) in the USA – in which every educational goal begins with the words: "By the year 2000 every American adult will..."

3 Assessment, Indicators and Benchmarking

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

As can be seen from the previous part of the report, key competencies continue to have an ever greater role in determining the targets of general and vocational education in Switzerland. While at the outset this took the form of ‘visionary’ goals and objectives for the curriculum (models), with no guarantee that they would be implemented in the compulsory curricula, importance is now increasingly attached – particularly in vocational education – to the ability to test whether key competencies have been successfully acquired. For this purpose a broad range of methods has been developed, such as portfolios, work diaries, checklists on personal judgments and other people’s judgments of performance in the context of action relevant to the individual’s competence. However, these instruments reveal differing standards of quality and are too disparate to be regarded as true indicators.

In business-structured qualification profiles that build upon transversal competencies are quite normal. For the most part they also form the basis of employee evaluation (sometimes affecting wage levels) and have a corresponding influence on target agreements. It is worth noting that in the context of companies’ performance management the question whether key competencies exist does not normally arise. In companies therefore nobody asks whether the key competencies are available or how they might best be described and which ones the company urgently needs. Their importance as a parameter in personnel management – e.g. where leadership qualities are required – is taken for granted, whether in the organization of the company or in the operating processes. This is an important fact, which should also be taken into account in economic debate on the existence or non-existence of key competencies. Thus, for example, a leading company assesses its executives using an instrument based on a list of twelve quality dimensions, each divided into 44 sub-categories. These dimensions are without exception transversal, or might be described as ‘key competencies in terms of the requirements in specific fields of operation in the company’.¹⁸ This kind of practice is to be found in many Swiss companies, chiefly the large ones.

What personnel management promotes – selection and qualification – is not automatically reflected in the in-service training policy of the company. In this area, selective training offers,

¹⁸ The twelve dimensions: (1) Drive and endeavour to perform well; (2) Initiative, determination; (3) Stability, resilience under pressure; (4) Receptiveness, versatility; (5) Analytical thought; (6) Perspective, judgement; (7) Planning and organisation; (8) Imagination, ideas; (9) Power of expression; (10) Sociability, poise; (11) Conviction and assertiveness; (12) Cooperation, delegation.

Examples of subcategories:

- *Initiative, determination*: Hands-on attitude, Motivating abilities, Autonomy, Willingness to take risks, Decisiveness.
- *Imagination, Ideas*: Fluency of thought, Vivid imagination, Lack of conventionality, Creativity.

strictly related to the employee's post, are still frequently made, although the promotion of broader competencies would have more sustained effects.¹⁹

Not so very long ago, the idea that our institutions must or should be compared with those of other countries, had very few adherents in Switzerland, particularly in respect of education. After much political thought, Switzerland became the last of the OECD member countries to undertake a country review of its educational system. In 1991 the corresponding report was submitted to the OECD.²⁰ Even in 1995 some Swiss cantons had hesitated to cooperate with the TIMSS study, arguing that this would contribute nothing to their own school system.²¹ But this assumption has changed rapidly, extensively and fundamentally in the past few years. With the exception of the second round of TIMSS 1999, Switzerland has participated in all large-scale international comparative studies.²² There has also been considerable investment in research to analyze the significance of these studies for Switzerland; corresponding research reports and publications are available in impressive numbers. In the meantime there is no longer any doubt, even at political level, about the usefulness of the outcome indicators in the educational field. Accordingly, interest is focused – even more than on benchmarking as part of an international comparison – on the interpretation of the results in the national context. Of interest, for example, are disparities between genders, or the comparison of regions where different languages are spoken, cantons, types of school, age groups, etc.

As far as the inclusion of transversal competencies in such international comparative studies is concerned, a group of Swiss researchers took a leading role from the outset in the corresponding initiatives in the framework of the OECD. The fact that the international projects were limited first of all to measuring the learning performance in languages (reading comprehension), Mathematics and Natural sciences – notwithstanding the importance of these fields of knowledge – was regarded as a weakness, which had to be accepted for a long time. This was why Switzerland became deeply involved in the 'Cross-curricular competencies project' (CCC). This interest in measuring transversal, interdisciplinary competencies informed all Swiss contributions to the INES-project²³ like a *leitmotif*. Lastly it is no accident that the DeSeCo project was initiated by Switzerland and was led and supported by the Swiss Federal Statistical Office.

This does not of course mean there should be an uncritical attitude towards the fundamental, methodological questions that have arisen in the field of competencies. On the contrary, it was these very questions and the need for a better theoretical, empirical and policy basis that prompted Switzerland to found the DeSeCo. There are no specifically Swiss answers to the questions. It is certain however that Switzerland has a consuming interest in developing indicators for the main areas of competence in all policy fields – business, social policy, culture, environment, etc.).

¹⁹ Cf.: Schöni, W.; Wicki, M.; Sonntag, K-H. (1996) Arbeit und Bildungsqualität, Studien in der Textil- und Chemieindustrie. Chur/Zürich: Rüegger.

²⁰ Organisation for Economic Cooperation and Development (OECD) (1991) Reviews of National Policies for Education: Switzerland. Paris: OECD

²¹ Moser, U.; Ramseier, E.; Keller, C.; Huber, M. (1997) Schule auf dem Prüfstand. Chur/Zürich: Rüegger, P. 15

²² These are: the IEA Literacy Study (1991), IEA Third International Mathematics and Science Study (TIMSS), International Adult Literacy Survey (IALS), IEA Civic Education Study, Program for International Student Assessment (PISA) and International Literacy and Life Skills Survey (IALL).

²³ For an overview see Salganik, L.; Rychen, D.; Moser, U.; Konstant, J (1999) Projects on competencies in the OECD Context. Neuchâtel: Swiss Federal Statistical Office

4 Public debate – Negotiating and legitimating

- In the last decade, has there been a public and/or professional debate in your country on key competencies in different arenas and social fields (politics, civil society, economics, business, labour, mass media and communication, education)? What are the main topics being addressed? What is the relationship between education and key competencies? Has the debate spanned different arenas and social fields?
- Would you see, in the field you are coming from, relatively consensual or controversial positions regarding the definition and selection of key competencies? Could you describe the most influential positions? Who are the main actors and stakeholders?
- Are there mechanisms in place to define, negotiate, and select 'what really matters' in terms of key competencies? Are these negotiating procedures and decision-making processes on the agenda of educational, social, or economic policies?

One of our interviewees in the Swiss CCP said rather bitterly: "if you suggest an innovative idea in Switzerland you will be given ten reasons why it will not work, in the USA someone will find three reasons why it will work." That may sound exaggerated but it contains an element of truth: it is illustrative of a basic attitude in policy discussion in Switzerland: the new is not good in itself, it must first be demonstrated that it is necessary and appropriate. This is also true of the different importance attached to specialised knowledge and skills on the one hand and interdisciplinary transversal competencies on the other, both in work and in education.

References to the need for competence have not been a traditional feature of vocational training in Switzerland.²⁴ But in the past few years, a modernisation dynamic has been activated, which is based on at least four independent basic trends: (1) pressure on business to innovate; (2) the rise of integrated professional fields; (3) the 'Europeanization' or internationalization of professional qualifications and certification, and (4) the (already mentioned) increasing integration and promotion of flexibility in the upper secondary school level and its relationship to the higher education level²⁵. The combined effect of these factors has made the debate on transversal competencies topical.

In vocational education, there has been a genuine breakthrough in the assessment of key competencies for training and evaluation programs.. The actors who played a decisive role in this development, were the representatives of individual firms, industrial and professional associations, vocational schools, the conferences of cantonal directors²⁶ and the competent federal offices²⁷ in each area. The dynamic came chiefly from the newly conceived professional fields of action; here the very practical requirements of business, as seen in professional activity, play a prominent role.²⁸ But even the competent federal office, which traditionally tended to be more conservative, soon changed its ideas.²⁹

²⁴ Cf. also Grob & Maag-Merki *loc cit* 186 ff

²⁵ On this point: 'Die Sekundarstufe hat Zukunft', Schlussbericht der Projektgruppe Sekundarstufe II, EDK / BBT, Redaktion: Zulauf, M. (2000) Bern: EDK Berichte.

²⁶ E.g. EDK, SDK.

²⁷ In the front line, the Bundesamt für Berufsbildung und Technologie.

²⁸ Mathias Wirth, a bankers' association, describes it thus: "in the nineties we felt the very strong changes in the banking sector, ongoing transformation, much greater complexity. For example, we had to communicate with highly professional customers, we had to be constantly in pursuit of new knowledge and new technologies. To be able to exist there was no alternative for us than to gear our action to key competencies. For us therefore it was only natural to introduce this and to involve bankers fully in the drawing up of professional programmes"

²⁹ In the communication on the new federal law on vocational education (Berufsbildungsgesetz BBG) of 6 September 2000 overarching targets, such as 'ecological sustainability' are mentioned under § 1.1.1., 1.6.2, 1.6.4 and 1.6.5, but not explicitly related to key competencies.

In the general education system, including training colleges and universities, the formulation of overriding educational objectives, starting with the lower levels, certainly has a longer tradition. Discussion has come about recently, however, not least with the prospect of the modularisation and integration of the upper secondary level for example, and the development of teaching and research in higher education. The parliamentary note of the Bundesrat (Federal Government) about the promotion of education, research and technology in the years 2000-2003³⁰ sets forth – for the first time in Switzerland – national strategic targets for the development of the educational system.³¹ The context is described in the following terms³²: "Knowledge has gradually developed into the most important factor of production, the one on which an increasing number of companies now depends: knowledge leads to the development of more knowledge and hence to the extension of the knowledge base. It promotes innovation, intensifies economic-academic competition and thereby increases the need for new knowledge. This constantly accelerating process is associated with numerous political and ethical problems and – whether we like it or not – largely determines the prosperity of our country." On the competencies required the communication also states quite specifically: many occupations will find themselves at the interface between knowledge, education, culture and technology. It is the task of higher education:³³ to impart knowledge and skills to new generations in order to help them develop their own identity and understand the process of change in society; to play a part in shaping the social and natural environment, as well as producing and fully exploiting knowledge in the context of the world of work; to take part in the critical examination of the values and convictions bred by our habits of thought and our culture.

The fact that the discussion of key competencies has also been launched at national level is also shown by a question to the Bundesrat (Federal Government) presented in the Parliament³⁴ which was answered by the Bundesrat in September 2000. The questioners, from all parties, asked about the 'overall vision' of Switzerland in the age of the Internet; about forward-looking strategies "guaranteeing that Swiss society and business were part of the information society"; about the extension of core or key knowledge areas and key competencies, to ensure Switzerland maintained its economic position; about raising consciousness so that technologies such as IT applications, biotechnologies and genetic engineering could be critically examined; about initiatives to increase the motivation of the younger generation to "learn about the forward-looking key competencies of our society". In its reply the Bundesrat (Federal Government) stressed the importance of a holistic perspective: the challenges and opportunities presented in our age were not limited to the technology sector, what mattered was the economy and society as a whole, assimilating knowledge in a 'knowledge based economy', being able to solve complex future problems through teamwork. It was confident that a portfolio of competencies building on synergies would dynamise the Swiss economy and Swiss society.

The previous lines could give the quite false impression that a broadly-based public discussion about education policy focusing on key competencies was being held in Switzerland. Some of those we have spoken to emphasise the desirability of such a debate and at the same time regretted that there was little sign that anything of the kind was gaining ground. Many of the reasons for the lack of a debate must lie, even in this specific case, in the well-known general

³⁰ Note to the Parliament of 25 November 1998.

³¹ It is known that jurisdiction over education lies with the cantons. The Federal Government is responsible – partly in cooperation with the cantons – for vocational education, higher education and research.

³² PP 10-11

³³ With respect to the regulations on competencies, the communication refers explicitly to the higher education sector.

³⁴ Question: 'Central competencies for the future of Switzerland', submitted 23 March 2000, by Lalive d'Épinay, Maya and list of signatories.

characteristics of Swiss democracy: in its deeply rooted feudal structure, its extended 'power-sharing mechanisms', the convergence dynamics of a 'consensus democracy'³⁵. This was particularly true of education with its highly differentiated processes of negotiation involving commissions, announcements, reviews, discussions inside parliament, attempts at coordination at inter-cantonal level, etc. For the most part differences are settled in such assimilation processes and a fairly high degree of interest is required for a problem to attain the critical mass that makes it the subject of controversial political debate. This threshold was last crossed in education policy over the question of the first foreign language to be taught in (cantonal) schools. As far as key competencies are concerned, discussion has remained below this threshold and is to a large extent restricted to committees and organisations that are specifically charged with working out plans for education or qualification. In any event there is a distinct divergence of views over the extent to which such programmes are to be considered in economic terms or whether they should serve (primarily) the needs of society as a whole. Many feel that here too there is a distinct convergence of views, though others are more skeptical. Thus, for example, trades union representatives and the social services directors' conference demand that the debate on key competencies should reflect the areas where the discriminatory effects of non-existent key competencies are to be found and where key competencies are significant, particularly with respect to protection from social exclusion.

5 Competencies and Education

- Is the definition and selection of key competencies an issue in your country when discussing, for example, goal setting and the curriculum of the educational system, training at the work place, or life-long learning strategies? What prospects are envisaged? What are the expectations?
- Which institutions and/or agencies are responsible for the training of key competencies, within and without the formal education system? What role(s) do schools play in the teaching of key competencies?
- How could overall policy-making in different sectors, including but not limited to the education sector, promote the teaching and learning of key competencies?

So far this paper has given a detailed description of the relationship between the development of key competencies and the educational system. Key competencies first had only an indirect role, being part and parcel of general, overriding curricular targets. As such they served to stimulate the development of syllabuses – whether they would be incorporated in the practicalities of the teaching/learning processes remained an open question. Recent years have seen key competencies - the term, at any rate – move further and further into the foreground. It is clear from the attempts at reform in vocational education and upper secondary education at least that 'key competencies' is not merely an empty phrase, but an integral part of educational paths and qualification processes. One of the most delicate points in this process proves to be the way in which key qualifications are implemented and tested and instruments in assessments of oneself or others and in test processes. It is too early to judge the success of these endeavours, the reforms referred to being still in the pilot phase.

The very broad and intensive participation of Switzerland in major international studies, such as IEA-Civic Education, PISA and ALL, accompanied by comprehensive scientific work at national

³⁵ Cf. Linder, W. (1994) *Swiss Democracy, possible solutions to conflict in multicultural societies*. New York: St Martin's Press, 123, 157, and 173.

level, should not fail to impact indirectly upon the discussion about the status of key competencies in education. Just to pick out one example: when in the PISA programme, mathematical literacy is defined in the theoretical domain as "an individual's capacity to identify and understand the role that mathematics plays in the world, to make well-founded mathematical judgements and to engage in mathematics, in ways that meet the needs of that individual's current and future life as a constructive, concerned and reflective citizen", the understanding of mathematics thus expressed is far removed from narrow specialised thinking, and the possibility of transferring the capacity, consistent with transversal competency, is consciously placed in the foreground. The chances of knowledge from such large-scale investigations affecting developments in the Swiss education system are not to be underestimated, especially as the undertaking in question was a joint project conducted by the federal administration and the cantons.

In discussion with experts it is frequently emphasised that in education, what often matters in fostering important competencies is not so much what is laid down in the educational canon, as what happens – particularly at an informal level – in the educational process. Fields of learning, places of learning and learning environments have a structuring effect. The idea is emerging that even highly complex competencies, such as meta-cognitive competencies and social competencies – can be practised and learned, always in a context that provides a specific content, of course.

6 Assessing and Developing DeSeCo

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

Even in the Swiss view, the metaphor of the half-full glass is appropriate to the assessment of the results obtained by DeSeCo hitherto:

Half-full: since the DeSeCo dimensions: multifunctionality, transversality, complexity, and the fields of competence: autonomous, reflective actors, willingness and ability to work as a team (even) in heterogeneous groups and the ability to use tools competently, are immediately identifiable in most of the projects presented and most of the expert contributions. In this connection the ability to take personal responsibility for action is of particular importance in the Swiss programme. On the positive side it should also be noted that DeSeCo seems to be fully aware of the cultural and historical relativity of the constructs worked out.

Half-empty: since these categories are considered to be too broad – the level of abstraction too high – and the objection is always raised that it is quite possible to imagine key competencies which do not extend to all dimensions and categories. The results are also criticised on the grounds that they have chiefly referred so far to expert reports, whose representative character is not certain. It is therefore to be welcomed that the DeSeCo discourse is now being extended with the adoption of a procedure for comparing countries (CCP).

During the Swiss DeSeCo Symposium (June 2000), before and after it, an academic discussion took place in Switzerland on the concepts of 'competency' and 'key competency'. Though this

discussion can only be described as 'Swiss', to the extent that many Swiss researchers participated. The questions that emerged during this debate include:

- The problem of describing competencies either as psychic functional fields and/or as performances applied to task fields and tasks.³⁶
- Who is the subject of competencies: individual, partners, group, organisation? The partial interdependence between individual competencies and group competencies is highlighted.
- Need to establish a context in the determination of the normative horizons of key competencies. (Universal versus culture-specific; global versus local/national; sectoral versus inter-sectoral etc.)
- How and where can or must the choice of key competencies be democratically legitimised? By whom and for whom are key competencies selected, defined and described in the Swiss political context? (for all – including marginal groups, for the 'middle class', for elites?) Urgency of giving such processes explicit, formal and transparent expression. Particularly important because each choice also has intentional or unintentional repercussions on educational goals and processes³⁷.
- Problem of the interdependent relationship between 'competency' and 'measurement of competency'. In the development of indicators, the instrument for measuring the indicator constructs determines the way the constructs are measured at least as much as the constructs themselves³⁸.

This last point in itself has convinced many participants in the Swiss CCP that the concepts of competency to be found in the work of DeSeCo cannot be dealt with 'top down', i.e. from the theoretical ideas to the operational level. It should be possible to pursue them by passing repeatedly from the empirical to theoretical level and back.

In Switzerland the comprehensive data sets of PISA (over 10,000 fifteen-year-old pupils) and YAS (20,000 twenty-year-old adults) could be used for this purpose and will be available from the end of 2001. The YAS project, in particular, occupies the very area that will also be relevant to the follow-up activities of DeSeCo.

In order to verify this the following elements have also been picked out:³⁹

- The limits and possibilities of scales for measuring competency based on self-cognition will become more clear.
- We must wait for information on the relationship between self-cognition scales and suchlike to check available knowledge and value-concepts (attitudes).
- A gradual empirical examination of the inner (structural) relationships of sets of competencies or individual competency constructs to each other is to be initiated.

In this way a fruitful continuation of DeSeCo's work is to be expected both in relation to the YAS project and to other major projects such as PISA: the continuing development of structural models for competency, those based on theory and those that must be empirically validated. Switzerland is determined to continue to play an active part in this development.

³⁶ Helmut Fend, Universität Zürich, and Uri Peter Trier, DeSeCo, contribution to the symposium on the Internet: www.statistik.admin.ch/stat_ch/ber/deseco/deseco_meeting.htm

³⁷ Statements by Peter Sigerist Gewerkschaftsbund at the Symposium. Web addresses see footnote above, see also Ulrich Klöti, Universität Zürich

³⁸ On this point see contribution to Symposium by Jacqueline Lurin, Service de la Recherche en Education, Genève : 'Que faut-il entendre par 'Compétence' dans le contexte de la passation d'un test ? Web address as above.

³⁹ Cf. Grob & Maag-Merki *loc cit* P. 759 ff

7 Annexes

What follows is the description of six projects and an overview of an expert survey.

7.1 The ‘Young adult survey’ (YAS) project

The relevance for DeSeCo of the developments outlined above is documented in the comprehensive work of Urs Grob and Katharina Maag-Merki⁴⁰ in the framework of the ‘Young adult survey’ (YAS)⁴¹ project. Grob and Maag-Merki carried out a very extensive analysis of the models or the interdisciplinary targets of the secondary schools and vocational colleges.⁴² They used the interdisciplinary target dimensions of the syllabuses analysed, in addition to academic, theoretical foundations, with the object of developing instruments to ascertain the competencies of young adults. As a result this work has a twofold significance for DeSeCo: (1) it makes available a reliable overview of the interdisciplinary target dimensions rooted in the Swiss syllabuses, (2) it provides a fully developed, broadly based system of indicators for the key competencies of young adults, inclusive of reliable scales.

On the basis of the assessment⁴³ of the syllabus content, 33 target dimensions⁴⁴ were identified. These are presented in four concentric circles, according to the frequency⁴⁵ of their occurrence in the syllabuses examined:

<i>Inner circle:</i>	Capacity for action and independence
<i>Second circle:</i>	Learning competence, willingness to learn, differentiated thinking, tolerance. Personality development
<i>Third circle:</i>	Relative autonomy, self-reflection, self-acceptance, value-related basic actions, political education, positive approach to life, respectful attitude to history, environmental competence, health, responsibility to fellow man, communal skills, conversational skills, ability to cooperate, perceptiveness, traditional work virtues, achievement
<i>Fourth circle:</i>	Ability to deal with conflict, sense of balance, tolerance of ambiguity, critical faculty, creativity, sensitivity, general responsibility, responsibility subject, coping strategies, ability to solve problems.

The target dimensions of the syllabus analysis are easier to grasp if descriptors are used.⁴⁶

⁴⁰ Grob, U. & Maag-Merki, K.(2001) Überfachliche Kompetenzen, Theoretische Grundlegung und empirische Erprobung eines Indikatorensystems, Bern: Peter Lang.

⁴¹ The YAS project involves a survey in the tradition of the 'pedagogical recruit tests' - now the 'Swiss youth and recruits survey' - based on the 2001 indicators and scales of 20.000 young men and women using a 27 page questionnaire.

⁴² This involved all cantonal or inter-cantonal syllabuses of state secondary schools in German, French and Italian Switzerland, around 200 Swiss regulations on vocational education and the decree on the recognition of the 'Maturität' (MAV).

⁴³ Cf. Grob & Maag-Merki *loc cit* , 751 ff.

⁴⁴ Grob & Maag-Merki *loc cit*, Vierbereichs-Modell, 194

⁴⁵ Grob and Maag-Merki are of course aware, that the accumulation of examples is connected *inter alia* with the uncertainty of certain target dimensions; the overall picture nevertheless reveals preferences in interdisciplinary target conceptions.

⁴⁶ Grob & Maag-Merki *loc cit*, 201

Some examples of these are:

- *Self-reflection*: self-knowledge, self-assessment, capacity for realistic self-judgement, examination of one's own feelings, capacities, attitudes, inner debate.
- *Learning competence*: learning competence, information processing skills, working techniques, autonomous independent learning
- *Tolerance, esteem*: solidarity, openness towards others, consideration, respect, willingness to help, ability to give attention to others, empathy

One can of course object that this amounts to obtaining a perspective from the point of view of the actors in the education system from target dimensions derived from the syllabuses (supply driven). It must however be taken into consideration that these were the product of extensive discussion, conducted even at cantonal or national parliament level. The advantage of this basis for legitimacy for the YAS project, was that it was possible to use it to counter the accusation of arbitrariness by choosing constructs for its system of indicators that went beyond technical competencies.

The development of the YAS constructs occurred in three stages: (a) Consideration of the most important target dimensions in the syllabuses (see above); (b) Inclusion of a theoretical frame of reference derived from social science; (c) Identification. Checking or development and testing of appropriate scales. The action was iterative.

15 constructs emerged with 0-8 sub-constructs⁴⁷. These were:

- Personal-worth
- Personal-effectiveness
- Relative independence
- Self-reflection
- Awareness of one's own feelings
- Familiarity with burdensome feelings
- Creativity
- Health (healthy attitude towards risk, somatic indicators)
- Social Competencies – ability to cooperate (capacity for independence, taking responsibility and cooperation, experience of cooperative action)
- Further vocational education: willingness, sense of need and motivation (willingness to pursue further vocational education, estimation of the need for further vocational education, motivation to pursue further vocational education)
- Motivation to achieve
- Learning and work strategies (volition, planning strategies, transformation strategies, elaboration strategies, monitoring, persistence, evaluation strategies, dimension strategy)
- Environment (knowledge of the environment, behaviour towards the environment)
- Social responsibility (interpersonal responsibility, social responsibility, attitude towards the equal rights for the sexes, attitude towards foreigners)
- Politics (political interests, political and political-economic knowledge, time spent acquiring political information, contingent conviction regarding success and social climbing: legitimate and illegitimate means)

⁴⁷ Sub-constructs in brackets

Each construct is described in detail, related to the syllabus dimension, discussed from a theoretical point of view and made into an instrument. By way of illustration, two competency constructs are presented in table form:

Competency construct: social responsibility

Construct target	Partial target area	Source: Self-cognition personal statements (SC) or questionnaire (Q)	Examples of items from the scales drawn up ⁴⁸
Social responsibility in the more narrow sense	Interpersonal responsibility	Willingness to help in everyday situations (SC)	When a mother with a child in a pushchair wants to get on the tram or the bus or the train, I offer my help When somebody in the street asks me the way, I take the time to give the most accurate information I can
As above	Social responsibility	Attitudes ⁴⁹ towards solidarity in national and international context (SC)	In Switzerland too much money is paid out on social assistance ⁵⁰ People in the developing countries should first of all help themselves
Tolerance, esteem	Equal rights for the sexes	Attitudes towards equal rights for the sexes (SC)	Men and women should be treated in the same way in all occupations Women should keep out of politics
As above	Ethnocentricity	Attitude towards foreigners	Foreigners living in Switzerland should choose their spouses from amongst their own compatriots Foreigners living in Switzerland have the same right to work as the Swiss

⁴⁸ Scales graded as follows: fully applicable, partly applicable, not particularly applicable, not at all applicable. In the questionnaire, respondents were asked: "Please do not answer in terms of what you would like to be, but in terms of how you see yourself."

⁴⁹ Competency constructs are sometimes obtained from statements respondents make about their attitudes; these are included in the self-cognition scale.

⁵⁰ In the scales, items are often given in pairs, comprising a positive response and a negative one. In the examples given here only one type of response is included in each case.

Competency construct: politics

Construct target	Partial target area	Source: Self-cognition personal statements (SC) or questionnaire (Q)	Examples of items from the scales drawn up ⁵¹
Political involvement	Interest in politics	General interest in politics (SC) Distance/ importance of politics in relation to one-self (SC)	The question put quite generally: how strong an interest do you take in politics? ⁵² whichever party I choose does not actually make any difference Politics has nothing to do with real life
As above	Political knowledge	Civic knowledge, knowledge of central political-economic concepts (Q)	The Swiss parliament is made up of representatives of different parties. From the following list, tick the composition that applies today. What does 'deregulation' mean? ⁵³ What is the main reason why cartels in the free-market economy present a problem?
As above	Political activity	Time spent acquiring politically relevant information (SC)	On average, about how much time a day do you spend informing yourself about political issues? ⁵⁴
Political outlook	Contingency of attitudes towards success and upward social mobility ⁵⁵	Comparison of attitudes towards upward social mobility through 'legitimate' and 'illegitimate' means ⁵⁶	In your opinion what determines whether somebody is successful and moves up the social ladder in Switzerland? You must: have sound specialised knowledge of your own particular field be dynamic and have initiative have money and assets exploit other people

In the Swiss educational policy scene – and particularly from the perspective of DeSeCo – there are good reasons for examining the YAS project and taking issue with it, hence the extensive presentation here. (On this point see also 'Assessing DeSeCo' in this report.) The presentation of the next project must necessarily be kept shorter.

⁵¹ Scales graded as follows: fully applicable, partly applicable, not particularly applicable, not at all applicable. In the questionnaire, respondents were asked: "Please do not answer in terms of what you would like to be, but in terms of how you see yourself."

⁵² Categories of response: very strongly, quite strongly, a little, not at all.

⁵³ All questionnaires (Q) use the multiple-choice approach

⁵⁴ Response categories: Daily: for an hour, for between 30 minutes and an hour, for between 15 minutes and 30 minutes, for between 5 and 15 minutes, for less than 5 minutes.

⁵⁵ Even Grob and Maag-Merki see the inclusion of 'ideological' categories in competency constructs as a source of problems for the establishment of values and the setting of norms; they are however implicitly involved *de facto* in such constructs. But this question of principle is not up for discussion within the parameters of this country report.

⁵⁶ Here there are two options for 'legitimate' and 'illegitimate' means are provided in each case (of the five for each scale).

7.2 The decree on the recognition of the 'Maturität' (MAV)⁵⁷

The decree of 1995 on the recognition of the 'Maturität'⁵⁸ (*final examination at the end of higher secondary education*) first laid down general interdisciplinary goals for this educational level, which has traditionally been associated to a considerable extent with separate disciplines and subject categories.⁵⁹ The originators of these targets are representatives of the upper secondary stage, educationists and education policy makers. Moreover the compulsory version is the fruit of a year-long process of educational policy negotiations, whose purpose was to achieve consensus.

The interdisciplinary target dimensions⁶⁰ established by the MAV under the heading 'educational objectives' are:

- Capacity for life-long learning
- Integrated personality, combining knowing, wanting and feeling
- Joined-up thinking: logical, abstract, intuitive and analogous.
- Intellectual openness; curiosity and power of the imagination; open access to new knowledge
- Ability to use scientific method
- Ability to find one's way in the natural, technical, social and cultural environment in the present and in the past, at national and international level
- Capacity for independent judgement; sensitivity in musical and ethical spheres
- Capacity for accomplishing demanding social duties; willingness to take responsibility for oneself, for fellow man, for society and for the environment
- Ability to communicate; ability to express oneself clearly, pertinently and convincingly; Ability to speak one's own language, another national language and other foreign languages
- Ability to work alone or in groups
- Development of physical capacities, harmony with body.

If the catalogue of targets laid down in the MAV is compared with the target dimensions taken from the *Volksschule models*,⁶¹ it is found to lack such concepts as self-acceptance, self-reflection, achievement⁶² and political education.⁶³

The MAV of 1995 is related to the increasing integration and flexibility of Swiss education for 15 to 20 year-olds (upper secondary stage) in general; another aspect of this development is reflected in the establishment of the vocational *Maturität*, whose core curriculum sets out to impart personal competency, social competency, thinking and learning competency and cultural competency as well as the competencies associated with learning particular subjects. The dynamic of this development, however, was probably not so much intrinsic, arising out of the education system itself, but rather fulfilled the urgent needs of the 'post-industrial' society and

⁵⁷ MAV = Regulation acknowledging the recognition of the Maturität

⁵⁸ Decree by the Federal Council, EDK regulation on the recognition of *Maturität* certificates (MAV) from grammar schools of 16 January / 15 February 1995

⁵⁹ The MAV will be split up in this report, given its importance for education policy, although its importance for the syllabus analysis of Grob & Maag-Merki is rated as 10%.

⁶⁰ For the sake of the representation these target dimensions are separated here and grouped differently. In the original text, they are part of connected sentences.

⁶¹ Such a comparison was made by Grob & Maag-Merki, *loc cit* P.185.

⁶² Partly covered by 'ability to work alone or in groups'

⁶³ Partly covered by 'accomplishing demanding social duties', it is nonetheless worth noting that the word 'politics' is not included.

economy. (On this, cf. also the section of the report: ‘Public Debate: Negotiating and Legitimizing’).

7.3 The St. Galler working group on ‘key competencies’

Transversal competencies have been implicitly mentioned, as shown in the MAV; the St. Galler working group on ‘key competencies’ explicitly examined the questions, which key competencies should be demanded as upper secondary level targets and how they should be fostered.⁶⁴ The group drew up a concept of key competencies in terms of their content. In the process the concept of ‘key competencies’ became more problematic, though it was finally maintained. It was emphasised that transversal competencies were only ever acquired and made relevant in close conjunction with specialised knowledge and skills. What made the project innovative in the Swiss context was on the one hand the strong role played by industry and on the other the analysis of weak points involving pupils, trainees, students and experts. The analysis produced a critique of the learning and testing culture and of the professional qualifications of the teaching force.⁶⁵

Central to the concept of ‘key competencies’ for the St. Galler working group was ‘competence for action’, which is derived from the convergence of four overlapping fields of competence: individual competence, specialised competence, social competence and methodological competence:

Individual competence: independence, creativity, flexibility

Specialised competence: ability to achieve, ability to communicate in foreign languages, capacity for joined-up thinking, ability to solve problems, competence in decision making

Social competence: ability to communicate, ability to cooperate, capacity for self criticism, capacity to settle conflicts

Methodological competence: ability to learn, ability to use information and communications technology, ability to organise work, grasp of working techniques.

In their comments the working group stresses that ‘competence for action’ can only ever be understood in the context of learning or action in educational or professional spheres. ‘Independent learning’ (motivation, working techniques, familiarity with information, communication methods) acquires a generic significance.

7.4 Reform of basic education for businessmen (RKG)

The reform of basic education for businessmen in Switzerland from 1996 was a turning point in vocational education in Switzerland; individual occupations were brought together to form more

⁶⁴ Dörig, R. (2000) Bildung als Schlüssel zur Handlungskompetenz, Report by the working group on 'key competencies'. The working group, led by Kläus Erni, comprised representatives of business (strongly represented), research and education-policy-making bodies.

⁶⁵ The working group submitted corresponding postulates for optimising the teaching- learning-testing culture, for making the teaching force more professional and for creating (better) extra-curricular framework conditions.

extensive occupational fields and the educational programmes were broadened and deepened.⁶⁶ In accordance with the dual structure of vocational education, the core curricula and catalogues of learning targets were developed in pilot projects, on which vocational colleges and companies closely collaborated,⁶⁷ and were consolidated in forum discussion and notifications.

Radically new working procedures, including more flexible company working procedures, delegation of responsibility, partial autonomy at the workplace, worker consultation, team work, more foreign contacts, imposed new demands on basic and further education. In a survey of 2,130 Swiss companies, Geser ascertained⁶⁸ that they wanted schools to place more emphasis on 'personal initiative' (72%), ability to work in a team (62%), IT competence (52%), desire to achieve (48%), as well as mastery of German, English and Mathematics (42 % each).

A set of competencies comprising specialised competence, methodological competence and social competence serves as the basis of the core competence '*professional competence for action*' worked out in the framework of the RKG:

- *Specialised competence*⁶⁹: "subject-specific and interdisciplinary competencies such as the ability to gather information, knowledge of languages, willingness to pursue further education." In terms of content this involves⁷⁰: sectors and firms, information, communication and administration, business and society, mother tongue, foreign languages.
- *Methodological competency*: "methodological, cognitive and behavioural skills such as: use of variety of methods, objectivity, reflectiveness, analytical skills, capacity for transferral, flexibility and ability to solve problems."
- *Social competency*: "independence, sense of responsibility and willingness to take responsibility, ability to cooperate and work in a team, ability and willingness to communicate, critical capacity.

The reappraisal of this very commonly held concept of competency is made in pilot courses⁷¹ in two ways: (1) competencies are formulated in specific terms on three levels: the guiding idea, the dispositional target(s) and the achievement target(s),⁷² and they are associated with the real processes of work⁷³. The achievement targets⁷⁴ are kept specific so that it is easier to ascertain whether or not goals have been achieved by personal evaluation. (2) For the educational targets a system of performance assessment at the work place is being developed (here too an external assessment), which has the potential of providing indicators for transversal competencies, in aggregate form, which are relevant to the evaluation process.

⁶⁶ Nenninger, P. & Summermatter, H. (Ed.) (2001), Reform der kaufmännischen Grundausbildung, Band 1, Landau: Empirische Pädagogik. Darin: Renold, U.: Innovationen und Implementation des Reformkonzepts (19-100); Frey, A. & Balzer, L.: Theoretische Grundlagen des Evaluationsrahmens (pp 101-138).

⁶⁷ For Pilot phase (I and II) in each case over 10 vocational schools and companies at any time.

⁶⁸ Geser, H. (1998) Wandel der Arbeitswelt, Zürich: Soziologisches Institut der Universität Zürich

⁶⁹ Frey, A. & Balzer, L, in Nenninger & Summermatter *loc cit* 102ff

⁷⁰ idem, 106

⁷¹ Cf. Ordner; Modelllehrgang Bank, (MLG) (2000), Schweizerische Bankiervereinigung, Pilotversuche 99-01 and 00-03.

⁷² The three levels: Guiding idea, Dispositional target, Achievement target were termed the 'Triplex-Lernziel-technik' (triplex learning target technique). , cf. MLG

⁷³ This does not occur, as it were, 'in the abstract', but in the course of intensive, iterative interaction between numerous companies and vocational schools in two series of experiments.

⁷⁴ Dispositional and achievement targets certainly take the specific needs of a sector - in this case banks - as a starting point; specialised knowledge and skills are however included in the overriding guiding targets and competency programmes: methodological competency and social competency.

Here too just one example - in this instance from the 'native language' domain - is needed to show the progress in work on the three levels referred to:

Guiding idea: Understanding what is required and recognising what is intended: "a significant part of the activity of business men consists in verbal communication. Somebody who sees just what is required and responds appropriately is able to exert a positive influence in the discussion. Businessmen are prepared to reconsider time and again their own behaviour in speaking to business partners."

Dispositional target: Being able to conduct a conversation and put across one's own position.

*Achievement target:*⁷⁵ "If everybody is not of the same opinion, I put forward my position fairly and clearly: (a) In the process I present my thoughts and arguments clearly; (b) I harm nobody; (c) I do not give way immediately to the first contrary opinion, but I do not cling stubbornly to my position when the other ideas are obviously better."

7.5 SWISSMEM: Course on inter-professional competencies

In 1998 SWISSMEM⁷⁶ introduced a basic course entitled 'Inter-professional competencies', in cooperation with its associated firms.⁷⁷ The broad list of 'key qualifications', on which the SWISSMEM course was based, comprised the following areas of competence:

- Learning competence
- Competence regarding working methods
- Awareness of risks
- Environmental awareness
- Autonomy and self control
- Consciousness of effectiveness and efficiency
- Ability to work in a team
- Creativity
- Flexibility
- Capacity to innovate (accept, promote and bring about change)

In the SWISSMEM course, 'key competencies' are included amongst the overarching competencies at four levels: (1) Designation of field of competency (see above); (2) Short definition of field of competency; (3) Implementation and testing relevant to action: 'What is involved?' and (4) Checklists for personal evaluation.

⁷⁵ One of many

⁷⁶ Schweizer Maschinen-, Elektro- und Metallindustrie (Swiss mechanical, electrical, and metal industry)

⁷⁷ Arbeitgeberverband der Schweizer Maschinenindustrie (ASM), Fachstelle Berufsbildung (1998, 2. Auflage 1999) Ordner: Berufsübergreifende Fähigkeiten (145 S.) Redaktion: Fink, B., Goetze, W. & Werner, K. The course sets out to provide for 'extensive, independent processing by learners' as part of their basic training.

For clarification, examples of levels 2 and 3:

Level 2:

Competence regarding working methods: "I am willing and able to work systematically on tasks and projects, obtaining the necessary information, planning activities, testing different solutions, making justified decisions at the right time. I work on, monitor and document tasks and projects independently and I evaluate them."

Ability to work in a team: "I am willing and able to work in a team, to communicate with other specialists and collaborate with them in the search for solutions. I make constructive criticisms, recognise areas of conflict and am prepared to deal with them. I am able to accept sound decisions."

Level 3:

Planning: "At this stage ask yourself the following questions; What priority does the task have? What possible solutions are to be tried out? What sub-tasks of what duration are to be carried out? Who works on which sub-tasks? How does the schedule look? What aids and tools will be used? What are the test criteria for the sub-tasks and the overall task?"

7.6 Reform of the health profession

In the late nineties key qualifications were adopted under this heading in the regulations on professional education in the health sector issued by the Swiss Red Cross.⁷⁸ These are considered very important in the context of educational goals. They are described as overarching learning targets, in terms of function and partly in terms of profession, which should enable professional people to confront changes in their work and at the same time preserve personal latitude. The programme emphasises that learning targets will never be finally reached, but should "promote an understanding of education such that the development and maintenance of the professional identity is central."⁷⁹

While the reforms in the educational paths in the health professions (upper secondary level and higher education level) were in progress, supported jointly by the SDK (Swiss health directors' conference) and the SKR (Swiss Red Cross)⁸⁰, the programme of 'general professional competencies' (key competencies) was widely extended.⁸¹ The draft regulations⁸² on professional health employees include the following statement: "Trainees' competence for action, consisting in equal measure of specialised competence, personal and social competence, as well as

⁷⁸ Cf., for example, 'Bestimmungen des Schweizerischen Roten Kreuzes für die Berufsausbildung der medizinischen Laborantinnen und Laboranten (MLAB)', 1 January 1998

⁷⁹ In the above-mentioned regulations, the following key qualifications are demanded *inter alia*: precision, reliability and independence in one's own job, the ability to adapt to new methods, to organise one's work flexibly, the ability to fix priorities and make decisions, the ability to assess the quality of one's own work, willingness to take responsibility, readiness to respect the principles of professional ethics, the ability to promote a climate of confidence and good interpersonal relations, readiness to respect the demands of the environment.

⁸⁰ Recently the health professions became the responsibility of the BBT (Federal office for professional education and technology).

⁸¹ The package of notifications, issued by the SDK and the SRK on 21 June 2001, referred to 'certified proof of competence and the professional diploma in nursing' i.e. two levels in the same professional field: that of the 'professional health employee' (three years training at upper secondary level) and that of the 'qualified nurse' (three years in vocational higher education college).

⁸² Reglement (Entwurf) vom 17. April 2001 des Schweizerischen Roten Kreuzes (SRK) für die Ausbildung zum Fachangestellten Gesundheit im Zuständigkeitsbereich der Sanitätsdirektorenkonferenz, Art. 4.

methodological competence, is to be expressly fostered". As components of these fields of competency, the following should be cited:

Specialised competency: professional knowledge and skills.

Personal and social competency: independence, initiative, personal responsibility, reliability, creativity, willingness to perform well and ability to work as part of a team

Methodological competence: acquisition of techniques required for independent learning, ability to plan and execute work independently and to work with other people in a team, to deal with conflicts that arise, to tackle new problem situations creatively

On a more general level it is also demanded: "The trainee should acquire the capacity for joined-up thought, in order to grasp the essence of a problem rapidly and to cope with the tasks assigned to him/her economically, ecologically, carefully and rationally."

These competencies are exemplified in a complementary text in a chapter specifically devoted to 'key competencies'.⁸³ Examples from this list are:

- Treat people with interest, accepting them as individuals from a given social and cultural environment, with a specific value system
- Tailor your actions to the needs of the clients
- Consider your own professional thoughts, feelings and action in the light of ethical principles and draw conclusions for future work
- Observe situations, be aware of changes and inform the responsible offices and persons of them
- Communicate in a manner appropriate to each professional situation
- See yourself as a member of an interdisciplinary team, cooperate constructively with other team members and with the support services, and recognise and keep to your own area of expertise
- See yourself as a learner, passing on knowledge and skills to members of the team and learners as an everyday occurrence
- Develop the capacity to improvise
- Learn to cope with stressful situations
- Treat resources economically and ecologically
- Plan, document and organise work
- Recognise your own need for further training and make an appropriate choice from the existing offer

The diversity of these descriptions clearly shows how key competencies have been transformed in the context of quite specific areas of activity into demands for qualifications, reflection being a general prerequisite.

⁸³ Reglement über die Ausbildung und die Abschlussprüfung Fachangestellte / Fachangestellter Gesundheit des Schweizerischen Roten Kreuzes (SRK) (Entwurf Juni 2001), Art. 9, P. 6-7

7.7 Expert 's Assessment of Key Competencies⁸⁴

The inventory of key competencies, regarded by the experts as particularly important, represents no more of course than the opinions of the respondents; it must nonetheless be accepted that the overall picture is a fairly reliable indication of the desires harboured by representatives from the worlds of education, politics, and business in Switzerland at the present time.

The representation classifies competencies in broad fields. The material from the interviews has certainly been densely packed into these fields, but as far as possible it has been left verbatim.

7.7.1 Competence for action / autonomous action / self-competence

- Getting along with oneself / being able to judge oneself / how can I develop myself? / to see one's own situation in context / how and where can I discover and make use of my competencies? To be aware of your own role: where am I, what does my job consist in?
- What can I do – what can I not do? / How can I optimise my own resources / internalised action strategies and routines
- Metacognition of one's own action / being able to recognise and admit one's failings / Critical self-assessment / being able to endure stress and conflict
- Taking action and taking responsibility for action / making decisions and being able to justify them / personal responsibility and willingness to be accountable
- Decision-making competency / forming one's own opinion on the basis of information
- Taking the initiative / enterprising thinking / being able to sketch out projects / autonomy and willingness to take risks / being able to assess and take risks / being able to move in "high risk" circles
- Following up an idea when people are convinced that it is a good one / having the ability to assert oneself when the goal warrants it
- Commitments, intervention, self-discipline / staying power even in difficult circumstances / strategies to cope with stress

7.7.2 Learning competency / information processing

- Learning to ask / being able to deal with questions
- Thinking innovatively / Coping with change / remaining open, not making assumptions with insufficient knowledge / throwing oneself into new challenges, situations, agreeing to new demands, being able to adapt and transpose knowledge
- Developing potential awareness and maintaining it / being able to sustain full attention for a long period
- Taking intuition, creative ideas seriously
- Learning by working on problems / ability to solve problems

⁸⁴ In this section: 'Which Key Competencies?' the input of experts has only been included in so far as it concerns the citing of priority competencies. In the DeSeCo Symposium in Switzerland on 21 and 22 June 2000 some of the projects referred to earlier (YAS, St. Galler Arbeitsgruppe, SWISSMEM) were presented. In so far as key competencies from other sources were referred to at the symposium, they are incorporated here: they include input from Ernst Zürcher, General Secretary of the SODK (conference of cantonal social services directors) and Peter Sigerist, Education Secretary for the Swiss Trades Union Congress. the interviews were only loosely structured, the competencies cited were extracted *ex post facto*. Where identical competencies were cited in several instances only one citing has been used.

- Understanding the essence of something to be learnt / distinguishing the important from the unimportant / grasping complexity: What does it involve? /
- Being able to obtain an overall view / being able to use access to information selectively /being able to hold one's ground against a flood of information / ability to summarise
- Methodological competency in learning / being able to work scientifically / thinking and working on an inter-disciplinary level
- Being able to take ideas out of context / ability to transpose ideas
- Learning from one's own learning experience

7.7.3 Planning, management, methodological competency

- Estimating resources realistically
- Thinking strategically / being aware of options and latitude / knowing of strategies for falling back on resources / management of resources: data, physical resources, people. – also taking account of such resources as are not in the immediate environment / recognise open questions
- Mastering time management techniques (work-plans and deadlines)
- Recognising and fixing priorities / being able to set short-term and long-term goals
- Being able to estimate the impact of action / being familiar with techniques for assessing effects
- Methodological knowledge / being able to structure processes / having tactical knowledge at one's disposal /having a set of methods
- Being able to use tools / strategic use of appropriate instruments and tools

7.7.4 Communication competency, social competency, interpersonal competency

- Listening actively, listening with understanding, understanding texts
- Being able to express oneself pertinently / being able to formulate and express ideas / being able to argue
- Sending messages: being able to expound, segment, structure, find and test ways of putting an argument, convince /mastering presentation techniques / being able to describe vividly / being able to speak freely
- Creativity as freedom to identify one's own thoughts, words and actions
- Being able to express oneself with artistic means
- Ability to cooperate / ability to work in groups / ability to form part of a team / ability to make constructive criticism / to converse directly with persons concerned
- Not bottling things up, but always being open to talk about differences
- The art of putting forward one's own opinion, but also of distancing oneself from it and being able to accept a better opinion
- Showing esteem for others / openness, confidence, integrity / feeling and showing solidarity / tolerance in dealing with those around you
- Social competency not only to be able to cope with the labour market but to be able to operate in society / man as the author of his actions
- Personal reflection on one's own social behaviour / not hiding some uncertainties

7.7.5 Systemic thinking

- Recognising different systems and sub-systems as well as dimensions of systems: economic policy, social policy, environmental policy, culture policy, education policy; global versus national or local, etc.
- Being able to distinguish different system levels: personal, interpersonal, societal
- Being able to reflect upon institutions (schools)
- Recognising norms, submitting to relationships, but also analysing them and changing them
- Being able to break down structures to allow fresh starts / starting 'revolutions'

7.7.6 Citizenship, political education, ability to take part in democratic process

- Being willing and able to make informed political decisions / being able to adapt to the immediate environment
- Limiting one's own claim to information to a manageable amount - making decisions nevertheless / Daring to have one's own opinion
- Capacity for criticism / being able to remain detached / endeavouring to see through prejudice
- Media competency as an instrument of political competency /being able to decipher political messages / endeavouring and being able to understand complex political matters / striving for objectivity / making sure of one's facts before making a judgement
- Having a minimum of specific knowledge about political arrangements, institutions, processes and relationships / understanding how direct democracy works
- Being aware of the relationship of politics to one's own personal history, to one's own circumstances / discover that politics matter.
- Being willing and able to involve oneself with organisations and institutions in 'civil society'. (In Switzerland, involvement with local council, educational matters, welfare, associations, civil defence, fire brigade, etc.) / participating in 'militia system' / knowing the fields of activity and the activities of citizens
- Having a sense of the importance of democratic rules, both inside a group and outside it
- To be willing to commit oneself to political causes / participation in NGOs, parties, trades unions, etc.
- To be willing and able to take part in political discourse /to weigh arguments / to be able to debate
- having a sense of values / solidarity / openness to religious life
- Being able to recognise political legitimacy
- Cultural awareness / openness to cultural life