



**KEY COMPETENCES IN EUROPE: OPENING DOORS FOR
LIFELONG LEARNERS ACROSS THE SCHOOL CURRICULUM
AND TEACHER EDUCATION**

EXECUTIVE SUMMARY

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Executive Summary

This study on cross-curricular key competences in the school curriculum and in teacher education in the 27 Member States was commissioned by the Directorate-General for Education and Culture of the European Commission. The study was undertaken by a consortium composed of the project leader CASE (Centre for Economic and Social Analysis, Poland), working in partnership with: QCA (Qualifications and Curriculum Authority, United Kingdom), EIESP (European Institute for Education and Social Policy, France), the Universitat Autònoma de Barcelona (Spain) and two Hungarian experts from Eötvös Loránd University and Pannonia University.

The aim of the study is to provide a comparative overview of policy and practice concerning the development and implementation of key competences in the education systems of the 27 Member States of the European Union. In particular, the study assesses the implementation of the 8 key competences contained in the European Reference Framework of Key Competences in primary and secondary schools across the EU as well as the extent to which initial and in-service education and training of teachers equips them with the skills and competences necessary to deliver key competences effectively.

The European Reference Framework of Key Competences was defined in the *Recommendation on key competences for lifelong learning*¹ adopted by the Council and the European Parliament in December 2006 as a result of five years of work by experts and government representatives collaborating within the Open Method of Coordination. The Recommendation defines 8 key competences:

- Communication in the mother tongue;
- Communication in foreign languages;
- Mathematical competence and basic competences in science and technology;
- Digital competence;
- Learning to learn;
- Social and civic competences;
- Sense of initiative and entrepreneurship; and
- Cultural awareness and expression.

This study covers all the competences, while taking a particular focus on the last five, which are cross-curricular in nature. These key competences are not finite and their development should be supported by transversal skills such as critical thinking, creativity, initiative, problem solving, risk assessment, decision-making and the constructive management of feelings.

The methods used for the study comprise a literature review, the elaboration of country fiches for the 27 Member States and the preparation of six country case studies. The literature review clarifies the major concepts and issues relating to the identification of key competences. The country fiches (which are not included in the final report) provided a useful and reasonably consistent dossier of

¹ *Recommendations of the European Parliament and of the Council of 18 December 2006 on Key Competences for Lifelong Learning* (2006/962/EC), Official Journal of the European Union, 30.12.2006

data for each of the Member States for the analysis, while the six case studies look in more depth at key competence policies and practice in Finland, France, Hungary, Poland, Spain and the United Kingdom.

The study was carried out at a time when the European stakeholders were deliberating on the strategic framework of European cooperation in education and training, relating to the implementation of the revised Lisbon Strategy for the years 2010-2020. The European partners consider that the acquisition of key competences is a decisive factor contributing to the well-being of individual citizens as well as to social cohesion and to the development of the economy. This study confirms the importance of the development of key competences in the education systems of the Member States. This applies both to approaches to developing the school curriculum and to young people's acquisition of key competences as they progress through their countries' systems of mainstream schooling. The study emphasises that the implementation of key competences in school practice is a complex and demanding process. It calls for a new pedagogy of competence development, which can already be seen in innovative aspects of theory and practice in Member States.

The conceptual basis for key competences in the school curriculum

Following the Introduction, the first chapter of the report presents an international review of approaches and research concerning the concept of competences. The aim is to highlight issues around the concepts that we are concerned with in order to provide questions for the analytical chapters that follow. The chapter focuses on contributions from European and other international research and development work that create a useful framework of issues for this study.

Over the last 20 years, a range of terms such as key or core skills and key or core competences has been used in different European countries and at the European level. Various initiatives implemented within the EU framework of cooperation refer to or use the term key competences, or an equivalent. Besides the set of eight key competences, this includes categories of knowledge, skills and competences in the European Qualification Framework for lifelong learning, the learning outcomes approach being developed in higher education through the Bologna Process and the Tuning Project as well as the Common European Principles for Teacher Competences and Qualifications. There is also the Council of Europe's Common European Framework of Reference for Languages, which is widely used as a basis for systems of validation of language competences. Definitions of competence tend to refer to a complex notion that goes beyond the cognitive aspects and includes attitudes and capacities in addition to a set of skills. Key competences in the EU framework are those that “*all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment*”. Cross-curricular key competences are considered to epitomise integrated learning as they have a focus in all subjects and all activities in a school, are the responsibility of all school staff, represent goals common to the whole curriculum and are mutually complementary.

Recent EU work builds on the significant contributions to the development of the definition of key competences and competence-based education which have been made by other international organisations. UNESCO contributed to the United Nations' programme 'Education for All' by setting up the International Commission on Education for the Twenty-First Century. This led to the 1996 report ***Learning: the Treasure Within***, which stated that learning must contribute to the all-round development of each individual and defined four pillars of education: learning to know, learning to do, learning to live together, and learning to be. The OECD DeSeCo (***Definition and Selection of Competences***) project had quite significant influence on the work on competence frameworks in the EU, both in numerous Member States and in the debates and collaboration at the European level. It defined the aim of key competencies as contributing to a successful life for individuals and a well-functioning society and the project classified key competences in three broad

categories (using tools interactively, interacting in heterogeneous groups and acting autonomously).

This chapter raises a number of issues for the analysis which include questions about the different purposes of cross-curricular key competences (contributing to personal development, citizenship, lifelong learning and employability); continuity between school and higher education in terms of how the cross-curricular key competences are defined; and the alignment, whether in the EU frameworks and/or in frameworks developed in the Member States, between the key competences for students (school and higher education) and those for teachers.

Policy and implementation

This chapter examines the policies that countries have formulated concerning cross-curricular key competences. Making a clear distinction at policy level between what is meant by key competences in general and by cross-curricular key competences is not always obvious. These distinctions can only be observed in the implementation within schools and in teacher training. For the countries that specifically use the term 'competences', there is general agreement that it is about the application of knowledge and skills, and includes knowledge, skills and attitudes. The notion of key competences generally refers to subject-independent competences which are seen as providing a core or basic set or a foundation. The terms skills, core skills and key skills are in use in some countries, while another group of countries defines goals and objectives, e.g. those to be achieved and those to strive for. Key competences have been introduced into systems in different ways, through change in the legislation on education, curriculum review and/or by introducing complementary objectives in the legislation and in instructions about the curriculum.

The implementation of policies aiming at developing cross-curricular key competences in Member States depends on many factors and varies not only from one country to another, but also over time, depending on the authorities in charge of the education policy and the priorities on the political agenda. The historic and institutional contexts are major factors and, at a more technical level, differences can be observed in the relative importance given to: 1) a new curriculum, guidelines and teaching/learning documents or textbooks; 2) new assessment tools of learning outcomes and evaluation tools of the results of the ongoing process (including control of quality and the role of the inspectorates where they exist); 3) training schemes for teachers and school-leaders. There are also differences in the methods of introducing and monitoring the process of change.

The study shows that the competence-based paradigm implies new teaching methods, new relationship between all the stakeholders (students, teachers, parents and external partners), relevant use of ICT, new organisation of schools, etc. This requires time for learning by doing and a comprehensive approach of the process of change by the policy-makers at all levels (national, regional, local and individual school). The chapter presents examples of different approaches and strategies from the Member States and raises issues about developing collaborative work at all levels and for interdisciplinary activities; training programmes for teachers and school-leaders; and the implications for the organisation of school activities and development plans.

Assessment

Assessing learners' key competences is a complicated and challenging task. Based on the fiches and the case studies, four types of assessment models are described:

- Type 1: Assessing cross-curricular competences explicitly – they are clearly defined and expressed in assessment standards, generally for each contextual subject/area.
- Type 2: Assessing cross-curricular competences implicitly – to the extent that they are expressed through subjects or areas, they are assessed.
- Type 3: Assessing subject-specific competences – assessment emphasises subject

competences rather than cross-curricular competences.

- Type 4: Assessing knowledge rather than competences – a ‘traditional approach’ to assessment, sometimes despite a commitment to the development of key competences.

Key competences are defined as comprising knowledge, skills and attitudes. Many Member States have moved towards the assessment of both knowledge and skills. There are fewer examples of the assessment of attitudes. This seems to result partly from an emphasis on knowledge and skills in policy and partly from technical issues. In addition, competences are always defined by the context in which they could be utilised. This poses a further challenge for assessment because it is often difficult to achieve assessment in ‘real life situations’ that is both authentic and reliable. The development of instruments for competence assessment requires the breaking down of broadly defined competences into sub-competences or specific skills, so as to relate them to measurable learning outcomes using reliable assessment standards. Such instruments are used for external, standardised tests and for some aspects of assessment by teachers. Portfolio assessment (based on the collection of evidence showing the learner's work and output) is becoming more common, precisely because it can be more readily related to the learning contexts than traditional tests. It is particularly useful for evaluating the outcomes of individual self-learning that are frequently combined with informal learning contexts.

Teacher Education

The relationship between teacher education and key competences should be considered for at least two dimensions. Firstly, the initial and continuing education of teachers should prepare them to facilitate the student's acquisition of key competences. This perspective raises questions about the methods, practices and beliefs that are most suitable for the purpose and whether or not they are currently included in teacher education. The second perspective is based on the assumption that since key competences are to be acquired by every individual, teachers should also acquire them. The EU Education Ministers have identified specific competences for teachers whilst most Member States have made a substantial effort to define their own sets of teacher competences. Therefore the question is whether teacher education builds up and enhances the key competences of teachers, as well as their capacities to facilitate their acquisition by their students.

The evidence gathered through this study suggests that the shift towards competences is more visible for in-service education for teachers than in their initial education. In-service education in this respect is supported through many small-scale activities, inspired locally or externally, often through non-governmental or non-academic partners. The real change in teaching practice - and beyond that the change in the way teachers function in schools - was observed for this study within complex school development projects targeting several different aspects of school life at the same time.

Taking a lifelong learning perspective means that teachers should possess the same key competences that are defined as learning objectives for students. Teacher education should include the personal development of future and working teachers within those areas. Such training is most common in the area of ICT and languages, but less common in leadership, interpersonal and social skills. It is virtually nonexistent in the area of cultural expression.

In their policies and programmes countries widely recognize the changing role of teachers towards becoming collaborators, facilitators of learning and lifelong learners, but there is still too little debate involving teachers themselves.

Practice

The competence approach therefore requires a change of paradigm from teacher-centred to student-

centred learning and necessitates a revision of the traditional methodologies and roles of teachers. The study presents examples of these changes drawn from the data collected. Depending on the countries, it can be observed from the data that, alongside their traditional roles, teachers are increasingly becoming facilitators of learning - for example organising teamwork, ensuring inclusion, managing classroom activity. Examples of school practice suggest that more of their time is likely to be spent supporting individuals and less on whole class teaching. The data shows that teachers are required to develop new methods supporting their new roles. They are expected to promote the acquisition of skills to support key competence development such as decision making, in-depth thinking, and problem solving amongst their students. Furthermore, teachers are being encouraged through pilots and projects carried out in their schools to make learning experiences more relevant and meaningful, encourage active citizenship as well as to create an environment conducive to reflective thinking.

Effective fulfilment of the new roles by teachers depends on the school organisational and pedagogical culture as is demonstrated in some of the examples highlighted in this chapter. This should comprise collaboration among teachers, more developed school leadership, flexibility, strong partnerships with parents and the active involvement of students in school life. Examples show that school autonomy, decentralised responsibility for curriculum development together with professional support and school collaboration networks can create an environment that supports the development of competence-based education.

Impact

This study shows that the implementation of the key competences Recommendation is part of the school policy agenda of most Member States, although they differ significantly in how much stress their national policies put on this goal, how much energy and resources they mobilise to achieve it and particularly how elaborated and sophisticated their implementation strategy is. Three years after the adoption of the Recommendation and one year before the end of the 'Education and Training 2010' process, the community faces the question of how to go forward. It is clear from the information gathered from the Member States for this study that a strong political commitment is not enough to achieve the goal of effective competence development. An implementation strategy based on a comprehensive approach is also needed.

The analysis shows that we can expect appropriate policy outcomes, e.g. an increasing number and a critical mass of schools that are successful in the development of cross-curricular key competences, if a strong national political commitment is combined with appropriate implementation capacities. It is important to stress that political commitment in itself is not enough if it is not accompanied by well elaborated and well orchestrated implementation strategies.

The greatest challenge countries seem to face is how to align all the relevant elements of school policy so that they can effectively enhance competence development. This also implies developing and sustaining effective national educational innovation systems supporting the emergence and spreading of school level innovations. Effective implementation also establishes flexible regulatory environments that allow and encourage schools to innovate, while ensuring that the accountability systems do not draw back innovation energies and endeavours. Links between the policy of competence development in schools, with similar policy developments in other sectors (e.g. vocational training and higher education) are also important.

The countries that seem to be particularly successful in implementing policies of cross-curricular key competences in their school systems efficiently use the following instruments:

- Setting appropriate curriculum goals and standards;

- Developing teacher competences;
- Shaping school practices:
 - o Innovation support;
 - o School development;
 - o Leadership.
- Giving appropriate feedback through assessment and evaluation.

The application of effective competence development oriented pedagogies in schools also needs appropriate resources. The pedagogy of competence development with its innovative learning environments, intensive use of ICT facilities, frequent and meaningful project work and teamwork, new assessment methods and various individualised techniques of organising learning is resource-demanding. Countries committed to improving the development of key competences also have to think about where to find the necessary resources and how to use them efficiently.

Recommendations

The report concludes with recommendations addressed to specific partners and stakeholders: the European Commission, Member States, regional and local authorities, the research community and professionals responsible for teacher education and teachers and school leaders.

The European Commission and its agencies

1. The European Commission should base its future action in school education on the acknowledgement of the fact that Member States have reached advanced policy positions in the area of key competences. The Commission should help and support Member States in their complex project of implementing their key competences policies using the EU peer learning processes within the Education and Training 2020 strategic programme, as well as Lifelong Learning Programme and utilising European Social Fund resources where possible.
2. The European Commission should explore the possibilities of a more explicit link between the different existing formulations of competence-based approaches. This includes the eight key competences defined by the Recommendation, and the EQF frameworks, the Council of Europe's framework of reference for languages, as well as learning outcomes-based approaches to higher education and VET.
3. The European Commission should encourage wide-ranging and inter-disciplinary research to bring more coherence to scientific knowledge concerning the theory and practice of teaching and learning for key competence acquisition. The lifelong learning research strands provide a suitable vehicle to build on work already being developed by international organisations such as OECD. It should now be possible to for the Commission to build on the results of this study to launch an impact analysis across several member states that could contribute to evidence informed policy.
4. The European Commission should maximise opportunities for European countries and stakeholders to develop their own peer-learning as concerns the implementation of key competence policies. The study has provided ample evidence of an extensive fabric of bottom-up developments as well as more systematic key competence developments at national level. The Commission should bring several levels of activity to bear: the peer learning process in which Member States engage on particular priority themes, maximising appropriate European inter-school links through the Lifelong Learning Programme and supporting the activity of various thematic networks in this area.
5. The implementation of key competences in the school curriculum, in teacher education and teacher professional development, in assessment and evaluation mechanisms and in school development and innovation policies should be subject to regular reporting (and benchmarking) alongside the other priorities in the Open Method of Coordination for education and training 2020.

Member States

6. Member States should consider how to strengthen the links between their sub-sectors of education and training – higher education, VET, schools and adult education and to use their national qualifications framework (NQF) reforms to this end. Assessment, quality assurance and evaluation policies should be used to enrich the perspective of competence development.

7. Member States should strengthen linkages and alignment between the different facets of school development: innovations in school organisation and leadership, curriculum innovation and strategies aimed at meeting the needs of all learners, including those who have special educational needs, teacher education and assessment methods and practices. This calls for a well-developed evidence base for policy and practice, for which countries may need to draw on international as well as national research. Quality assurance mechanisms should take into account key competence development.

8. Governments as part of their strategic approach should revise the frameworks for initial and continuing teacher education in the perspective of competence development.

9. Member States should generate effective strategies and actions for implementing key competences in the school curriculum. It is not sufficient to develop legislation on key competences or to change the curriculum framework – the main effort has to be on implementation as a part of school innovation policies.

10. Member States should review and renew their approaches to the assessment of subject-based and cross-curricular key competences. Some countries have developed successful initiatives in this respect (portfolio assessment, for example, is a promising tool) and this should be the subject of peer learning and further development. The assessment of key competences is an aspect that in itself merits more research and evaluation.

11. Regional and local authorities should take a leading role in developing appropriate learning organisations and communities of practice that bring together diverse players – school leaders, teachers, parents, NGOs, higher education and the administration as well as students whose engagement becomes increasingly important.

The research community

12. The research community should gather and contribute new knowledge and evidence in a number of areas of policy and practice. This includes:

1. Understanding how learning can be enhanced through undertaking multi-disciplinary approaches to research;
2. Assembling and developing a more coherent research base for key competences, linking such issues as: the relationship between learning for subject knowledge and for key competences, effective subject-based and cross-curricular approaches to competence development, learning styles, assessment that is fit for purpose.
3. Change in the organisation of the school and of learning, that a shift to key competences entails.
4. Enlarging and deepening the understanding of different learning processes and how children and young people learn.

Teacher education professionals

13. Agencies that are responsible for initial teacher education should be partners in the policies for developing and implementing approaches to key competences, in particular being involved in describing teacher qualifications in terms of learning outcomes.

14. Continuing teacher training professionals should be active partners in the development of curriculum, assessment and qualifications policies, as well as in the implementation of key competence policies.
15. The technologies of assessing complex and cross-curricular competences should become a key element of the professional development of teachers and these technologies should be applied also in initial teacher education, when assessing the competences of teacher students.
16. School development and school leadership development, as well as the initial and continuing education of teachers should be seen as key areas of activities for teacher development agencies.

Teachers and school leaders

17. School leaders should involve teachers and stakeholders in collaborative learning and working to find solutions that engage learners as fully as possible in the acquisition of key competences. This calls for situation of trust and professional responsibility in which teachers are able both to learn and to try out new aims and methods.
18. Through collaboration, school leaders should provide a confident environment in which the school's policies and organisational culture engages teachers and other staff, through procedures such as corporate planning and small-scale action research.
19. In order to promote key competences, teachers should adapt their professional approach to some new and quite complex strategies concerning the school curriculum, teaching and learning methods, and assessment. This is best achieved through collaborative learning approaches and a full involvement in the development of the school as a learning community. The use of evidence and research to stimulate teachers' reflection on their practice has a key role to play.
20. Teachers should not see the choice as being between subject knowledge/ skills and the acquisition of key competences. Rather, it is a matter of achieving the appropriate balance between subject knowledge and skills, and key competences approaches that can effectively meet the needs of different learners.