Peer Learning Visit Report
18-21 March 2013

Ireland

http://keyconet.eun.org
KeyCoNet (2012 – 2014) is a European policy network focused on identifying and analysing initiatives on the implementation of key competences in primary and secondary school education.

On the basis of the evidence collected through literature reviews, case studies, peer learning visits, country overviews, videos and exchanges between network members, the project’s final objective is to produce recommendations for policy and practice regarding the enablers and obstacles to a holistic implementation of key competence development.

Among KeyCoNet’s current 18 partners in 10 countries (Austria, Belgium, Estonia, Finland, France, Ireland, Norway, Portugal, Spain and Sweden), are Ministries of Education/related agencies, universities/research institutes, European organizations, and practice related partners. KeyCoNet also has a growing number of associate members from other countries and stakeholder groups, steadily increasing our network’s scope and influence.
The principal objective of the KeyCoNet network is to gather evidence about various key competence initiatives and their implementation strategies in order to build useful recommendations for policy and practice in this area. One way the network does this is through a series of peer learning visits to countries where an interesting initiative or reform has been identified.

Each peer learning visit includes a visit to one or more schools where teachers and students are observed implementing the key skills approach into their teaching and learning; various debriefing sessions with relevant stakeholders ranging from representatives from the country’s Ministry of Education, Inspectorate, and Examinations Board; as well as interviews and informal question and answer sessions with head teachers, teachers, pilot coordinators, and other pedagogical staff. The aim of each visit is for partners to engage in a critical and constructive dialogue with the initiators and stakeholders of the key competence reform in question, enabling peer learning and comparative reflection on implementation issues.

The network’s first peer learning visit took place in Seville in the autumn of 2012 and focused on Spain’s national programme for the integration of key competences into the school curriculum, COMBAS, and more particularly its regional offshoot programme, PICBA (see http://keyconet.eun.org/project-results). This current peer learning report analyzes the holistic Irish Key Skills reform, following the network’s most recent peer learning visit which took place in March 2013 in Dublin.
ORGANIZERS

KeyCoNet’s Irish partner, the National Council for Curriculum and Assessment (NCCA), in close collaboration with European Schoolnet, hosted the peer learning visit, which involved visits to two secondary schools as well as a debriefing session with a school inspector, a representative of the State Examinations Commission, and three student teachers.

ORGANIZATIONS VISITED

- St Mark’s Community Schools
- St Colmcille’s Community School
- West Dublin Education Centre

PARTICIPANTS

A total of 21 participants, including KeyCoNet partners, took part in the peer learning visit:

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SoMe Key Points to Highlight for Keyconet

The Key Skills (KS) policies represent a reflective movement in education in Ireland; in other words, students are constantly encouraged to reflect upon what they are learning and what they have learnt, particularly in the field of key competences. Students are also encouraged to develop the competence of 'learning to learn'. From the beginning preference was given to the use of simple and clear terminology in naming and defining the KS in order to make this reflective process possible, and also to make the KS easier for teachers to adopt and for parents to understand.

This reflective movement is also accompanied by a general approach involving a comprehensive explanation of the KS to students, teachers, parents and school stakeholders. In some countries there is an attempt to develop key competences as 'background tasks' that are not routinely seen in lessons, the Irish strategy, on the contrary, is based on making them a central part of the class.

Rather than adapting all subject-based content, the priority of the Irish KS was to change teaching and learning methods in order to anchor content into situations that are closer to real life. These changes can nevertheless represent major modifications in content, as seen in Project Maths.

The embedding of Key Skills was addressed through a holistic approach, in order to ensure the coherence of pedagogical objectives, teaching and learning practices, student evaluation and teacher training.

The change in practices and vision takes place through the establishment and running of school networks, which allow communication between teachers who are working with key competences in their classroom on a daily basis. The objective is to convince by example rather than by simply complying with top down rhetoric.

The best vehicles for change are the teachers themselves; it is therefore strategically wise to give the teachers the time required to acquire the skills, to allow them to meet together, work together and to learn from each other by providing more opportunities for formal and informal discussions.

The Irish Context

Some Characteristics of Secondary Education

There are 360,000 students in secondary education in Ireland, in different types of school recognised by the state (376 secondary, 254 vocational, 93 community and comprehensive).

Almost 57,000 students sat the Junior Certificate and Leaving Certificate.

There are around 26,000 teachers (publicly funded) in secondary education.

The Junior Cycle (three years) corresponds to lower secondary education and the Senior Cycle (two or three years) to upper secondary education.

Students generally enter the Junior Cycle at the age of 12 and sit the Junior Certificate examination at the end of the cycle. This cycle is currently undergoing review with significant change proposed.

After the Junior Cycle students can take an optional transition year. The two final years of the Senior Cycle lead to one of three state exams (Leaving Certificate, Leaving Certificate Vocational Programme or Leaving Certificate Applied).

The Peer Learning Visit (PLV) in March 2013 focused on on-going curricular reforms in the field of secondary education (lower and upper) in Ireland, whose stated objective is the development of KS. The development of these competences in primary education is also a current topic of debate, given that it falls within the scope of the national strategy for literacy and numeracy introduced in 2011. The National Council for Curriculum and Assessment (NCCA) plays a decisive role in the conceptualisation, promotion and coordination of curriculum reform, incorporating the development of key skills.
Rather than directly transposing the key competences from the European framework, Ireland chose instead to adapt them under the form of ‘Key Skills’. The idea is to supplement the specific skills that students develop during their subject lessons with a more general range of skills that they will require in their personal and professional lives, as well as in their future education or training. The aim is to find a better balance within the education system between content and students’ skills.

To ensure the success of the embedding of the KS in the education system, the NCCA made the strategic choice to collaborate closely with schools, which in practice means:

- Working with teachers in the classroom;
- Giving priority to action research;
- Involving teachers in the design and implementation of the research;
- Influencing public policy through the results of the research.

One of the main strategies is the promotion to teachers of methodologies such as cooperative learning, learning autonomy, the use of feedback and student reflection. To do so, the NCCA makes various resources available to schools and teachers, in order to encourage their professional development and to train students who decide to follow a career as a teacher.

One challenge for the establishment of the KS lies in student assessment, which so far has been poorly suited to the introduction of the KS. Assessments that took place at the end of the cycle in order to certify each level of secondary education were essentially external in nature and favoured traditional approaches in terms of content and pedagogical methods. The current reforms, particularly in the Junior Cycle, should allow a move towards a greater flexibility and a greater variety in assessment methods.

Key Skills Reform for Senior Cycle

Principles and Application

Reflection on KS in upper secondary education was introduced following a large-scale evaluation of the curriculum at this level (2004-2005) which highlighted questions regarding the value and utility of the competences proposed by schools to their students. It therefore became clear that it was necessary to expand and deepen students’ key competences, as much to prepare them for the pursuit of studies in higher education as for their future professional and personal life.

The decision was made to introduce KS within traditional subjects, rather than developing them separately or systematically linking them to new subjects. Project Maths (discussed in full later in the report) is a major element of this curricular reform.

Between 2006 and 2011, the first school network set up by the NCCA worked on the development of 5 key skills:

- Communicating;
- Information Processing;
Critical and Creative Thinking;
Working with others;
Being Personally Effective.

Every KS is broken down into elements of content and learning outcomes that students are expected to gain by the end of their secondary education. The aim is for KS not simply to be one extra element added to the timetable but to be included within teaching, learning, evaluation, teacher training, etc. From this point of view, the approach is a clearly holistic one.

Early developments have been very encouraging, but the implementation of the curricular reform has taken longer than expected, due in part to economic and social problems linked to the economic crisis.

The move to KS, in the school network, took place in two stages. The first stage focused on improving teaching and learning practices by subject, by encouraging reflection among groups of teachers. Following this, the approach was extended to the global school level, from upper secondary to lower secondary, introducing flexible learning approaches.

INTEGRATION IN TEACHER TRAINING

Participants in the PLV met with three particularly motivated and enthusiastic students studying for the Bachelor of Science and Maths Education course at National University of Ireland, Maynooth. The Department of Education at this university is involved in various projects and partnerships in the educational field at a local, national and international level.

Students in initial teacher education at NUIM follow a number of different modules across the four years of the course that are linked to the development of Key Skills for teaching and learning. One 12-week module is based on the NCCA KS framework, which focuses on participation and active learning methods, including knowledge of information and communication technologies in education.

Teacher education at Maynooth is based on three main elements:

- Teaching, Learning and Assessment;
- The Teacher as a Critically Reflective Practitioner;
- School-based learning.

The first of these elements includes knowledge and skills on the subject of pedagogy, classroom management, information and communication technologies in education and specific educational needs. The second incorporates the contribution of different subjects (philosophy, psychology, sociology, history) to the model of the teacher as reflective practitioner. The third enables student teachers to learn in schools with qualified teachers.

The aim of the engagement is to make future teachers aware of the development of KS in areas that are considered strategic for the learner:

- Information processing (also understanding how different subjects complement each other);
- Communicating (understanding rather than listening and repeating);
- Being personally effective (by giving importance to evaluation as a method of formative assessment);
- Working with others (team work, cooperation, self-assessment, ability to listen, etc.);
- Critical and creative thinking (including the investigative process).

Established by Ms Majella Dempsey and her colleagues, CRiSTaL (Critical Reflection in Science Teaching and Learning) is an initiative specific to Maynooth that aims to promote a creative approach in teaching practices. The objective is to encourage future teachers to adopt a reflective approach to their teaching. To achieve this, students film each other during sessions in the classroom, after which they hold a critical and constructive debate on the difficulties observed as well as on what they feel are the best practices that should be shared.

Students attested to the usefulness of the methods that they learn and apply in their first experiences in the classroom and that they share with teachers already working in the schools. They also spoke of how they managed to engage students with rather major difficulties in the lesson through projects on the heart and blood flow.
By working together to identify the issues in question, drawing up a plan to be presented in public, writing up explanations and then giving a presentation in class, students gained specific knowledge while also developing Key Skills.

In the specific field of ICT use, during their teacher education students also work on a project in which they develop 3D serious games (Navigating Other Worlds (NOW) Project). We were therefore able to observe a demonstration of a game on probability, developed by a student in this module. The integration of game-based learning in initial teacher education is deemed necessary to ensure that teachers are familiar with these pedagogical tools that are continually developing and also to enable them to use these tools in a relevant way with their students.

Legal framework relating to curricular integration of key competences:

- a) Linguistic communication – the use of language as an instrument of oral and written communication, both in Spanish language and in foreign language;

- b) Mathematical thinking and reasoning – the skill to use numbers and basic operations; the ability to apply mathematical thinking into everyday

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**PROJECT MATHS AND VISIT TO ST MARK’S COMMUNITY SCHOOL**

**PRINCIPLES**

Project Maths has been and continues to be the subject of intense debate in Ireland, a country in which mathematics is studied by a large majority of students in upper secondary education.

The project stemmed from a series of observations of dissatisfaction regarding both students’ lack of interest in mathematics and their insufficient level of the basic
mathematical reasoning needed to successfully pursue studies in higher education or to ensure that they are not disadvantaged in 21st century society. The results of Irish students in PISA studies (2000 and 2003) and in subject examinations also added to these concerns.

Studies examining the mathematics curriculum in secondary education found that the didactic approach was highly traditional, with a limited emphasis on problem-solving. Teaching qualifications were based on rote learning and an insistence on routines and procedures, with a lack of context, application and in-depth knowledge of basic concepts. The last forty years in mathematics education were also characterised by a culture of elevated abstraction.

From the initial launch of the project, wide-scale consultations were carried out with the general public and with researchers and associations of mathematics specialists; these consultations were summarised in a report in 2006. The full initiative was launched by the NCCA in 24 pilot schools in 2008.

The objective was to move beyond the need to choose between teaching mathematics to prepare all students for inclusion in modern society and teaching mathematics to prepare those who plan to pursue scientific studies.

The aim of Project Maths is therefore to promote a collaborative culture where the study of mathematics is regarded as a social activity, in which discussions with students is a method of building their understanding. Teaching is seen as a non-linear dialogue, in which meanings, connections and misunderstandings are identified and used in order to allow students to learn from them. The project aims to promote conceptual understanding, procedural skills, strategic competence, adaptive reasoning and productive disposition.

The changes prompted various debates and controversy, bringing the need for a major public information campaign. For example a video was shot and broadcast in order to explain the reform to the general public. Criticisms were based on the final two years of the Senior Cycle and on the Leaving Certificate, but in fact ignored the role of mathematics in the education of the majority of young people, including those who do not follow studies in higher education.

The question of evaluation quickly appeared as a challenge that could threaten the project, since the logic of grades is contradictory to the acquisition of KS.

‘If the exam doesn’t change, nothing will change’: to get the message across, it was necessary for the project to tackle this high stakes exam so that students and teachers would understand the scope of the changes. For this reason, around half of the tests in mathematics were changed into contextual situations, in which students must apply mathematical rules to original contexts. In the new tests, writing is also given greater importance. These changes were difficult to accept for some maths teachers, for whom contextualisation or the introduction of new subjects (e.g. statistics) called into question the integrity of mathematics.

The simultaneous development of the new syllabuses and their assessment and the piloting with 24 schools was complex to implement and it made it difficult for teachers to readjust their beliefs about mathematics education and how their teaching needed to change. This was possibly exacerbated by deciding to introduce the implementation of Project Maths at both lower and upper secondary levels concurrently. The backwash effect of the high stakes Leaving Certificate examination was also a major contributor to the difficulties teachers experienced in readjusting their views of mathematics teaching.
The exchange of experiences within professional networks to help teachers adapt to the changes provided the basis for CPD. Project Maths Workshops were set up in order to help teachers with pedagogical questions rather than to discuss the programme content. Establishing dialogue, discussion and debates on the teaching model were important elements of these workshops. Teacher training sessions for Project Maths had a strong focus on pedagogical aspects and teaching methods. A mathematics inspector commented that it might have been beneficial to have a greater focus on improving teachers’ subject-related knowledge also, as when teachers felt more competent with regards the content, they were more confident to experiment with innovative teaching methods. The developers believe that although the importance of teacher content knowledge cannot be underestimated it is questionable as to whether simply a focus on improving teachers’ subject-related knowledge would have had more of an impact on the success of the implementation process. In hindsight a greater emphasis on getting the change message out to all involved in the initial stages of the initiative was required together with a professional development model that empowered the teachers to become reflective practitioners with a connected and challenging view of mathematics, teaching and learning.

The transition from one method of assessment to another was also a cause for concern for some students and their parents (temporary co-existence of the two systems measuring different competences but leading to the same qualification).

Finally, Project Maths could be summarised as the desire to allow students to learn mathematics by thinking mathematically, particularly in concrete, real-life situations. The biggest change was the contextualisation of content and the evaluation of student comprehension.

**IN THE CLASSROOM**

St. Mark’s Community School is one of the 24 pilot schools selected to test Project Maths in 2008. The school has 800 students, mainly from disadvantaged economic backgrounds, with a high percentage of migrants (23% of students were not born in Ireland) and Irish Travellers. For the school team, the reform was seen as an opportunity to better focus on student competences and development and to instil in teachers a passion for students as much as for the subjects that they teach.
In classroom visits we observed how teachers now favour collaborative work. Tables are set up for groups of four, in order to promote group work rather than traditional frontal teaching.

The teacher begins by presenting the competences that they will work on (which are also displayed visibly on the walls), explains the work required for each stage of teaching, hands out any supporting materials for the activity and then leaves the students to work among themselves, moving around the classroom to answer questions, point out problems and check that everything is on track. In one class the teacher told the students (before, during and after the problem-solving activity) to ask themselves what they already know, what they want to know and what they have learnt. The teacher called this the ‘KWL approach’ (Know, Want, Learned).

The problems given to the students were generally related to concrete contexts that were accessible to the students, either in the design of the task (e.g. solve a problem involving a mobile phone) or in the task itself (e.g. calculate the information necessary to construct something).

The teachers that we observed were actively involved with the students at all times, mainly ensuring that all the groups were functioning correctly, and established a steady pace over the stages of teaching.

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KEY SKILLS IN JUNIOR CYCLE AND VISIT TO ST COLMCILLE’S COMMUNITY SCHOOL

PRINCIPLES

Following a consultation on lower education in Ireland, research on second-level education and recent PISA results a new framework for the Junior Cycle (lower secondary education) was launched in October 2012.

This new phase of reform in lower secondary education notably involves:

- Statements of learning: the description of what a student is expected to learn;
- The integration of competences into the curriculum, learning and evaluation.

Six KS form a significant pillar of this major reform. The development plan of the reform will run from 2014 to 2020, but it is already being piloted in 48 schools from a network run by the NCCA. The project will be introduced nationally in 2014, commencing with the subject English and some new short courses. It will then be rolled out progressively in all subjects. This reform in the Junior Cycle involves everyone involved in education: teachers, ministry, state examinations commission, teaching unions, School Management Bodies and all other education stakeholders.

The six Key Skills supplement the national strategy for literacy and numeracy. The vocabulary for the framework was adapted to the Junior Cycle but was based on considerations that had been made for the Senior Cycle. They correspond in part to the key competences of the European framework and to the transversal competences:

- Managing Myself
- Staying Well
- Communicating
- Being creative
- Working with others
- Managing Information and Thinking.
Each KS is broken down into five to seven constituent elements.

The KS have been the subject of a major promotion and information campaign, including among students, since initial pilots have shown that students’ understanding of the competences that they are working on is one of the conditions of pedagogical success.

One of the major differences with the previous situation is that students are more conscious of their learning and that they have time for reflection after each lesson.

A network of the 48 pilot schools (with representatives of every type of school) was set up, including a website that is under development, which allows access to documents, videos, practical examples developed by teachers in other schools, etc.

The establishment of ‘Buddy Groups’ is promoted, either by a particular subject or by theme. During regular meetings, formal and informal (even over a cup of tea) teachers have the opportunity to speak as freely as possible about what works, the obstacles they have faced and about how they can help each other on different points.

The work with these schools has shown that it is much more effective to work directly with teachers, through these networks, in order to allow changes in education. The importance of ‘showing’ rather than ‘telling’ teachers what should be done was observed. The preferred way of embedding the KS was therefore to begin with how teachers and school administrators see and experience things, in order to propose changes that appear more realistic to others.

The reform is time-consuming at the beginning but becomes easier to implement after one or two years, once the courses have been fully developed.

**IN THE CLASSROOM**

*Photo 8 - Desks are arranged in two U-shaped rows to facilitate group work (St Colmcille’s Community School).*
The common points of the lessons that we observed (in different subjects) were:

- A formal stage of explanation of the objectives of the teaching stages by the teacher at the beginning of the lesson, with a presentation of the KS that will be developed in that lesson;
- A reminder of the rules to follow in order to develop the KS, particularly in terms of participation in group work (speaking without monopolising the discussion, changing roles frequently, etc.);
- Student group work, either on a practical experiment (e.g. testing the density of liquids in physics-chemistry) or a project on subject knowledge (e.g. presentation of medieval monks);
- A focus on note-taking by students, within a context of communication (with other students and with the teacher);
- Time for group reporting (sometimes with presentations);
- An evaluation session at the end of the lesson, going over what has been learnt and which elements of the KS have been covered.

Finally, participants from the KeyCoNet network had the opportunity to discuss implementation issues and reflections from hindsight with the school's head teacher and teachers in a question and answer debriefing session, which followed the classroom observations.
European Schoolnet is the coordinator of the KeyCoNet network.

European Schoolnet is the network of 30 European Ministries of Education, based in Brussels. As a not-for-profit organisation, we aim to bring innovation in teaching and learning to our key stakeholders: Ministries of Education, schools, teachers, researchers, and industry partners.

Since its founding in 1997, European Schoolnet has used its links with education ministries to help schools make effective use of educational technologies, equipping both teachers and pupils with the skills to achieve in the knowledge society.

In particular, European Schoolnet pledges to:

1. Support schools in achieving effective use of ICT in teaching and learning
2. Improve and raise the quality of education in Europe
3. Promote the European dimension in education

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