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Key Skills in the Context of Twenty-First-Century Teaching and Learning

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Introduction

As reflected in the junior cycle reform agenda recent years has seen educational aspirations expressed in respect of the development of certain key skills complementary to more traditional content-based learning. This has been driven by changing global priorities particularly in respect of the preparation of students for the world of work and participation in society as well as the fostering of economic competitiveness when viewed from the national or systems level perspective (Dede 2010). The emphasis on key skills has in part been facilitated by developments in respect of digital technologies which have enabled access to significant quantities of information and have enabled all citizens to become potentially both creators as well as consumers of such information (Davidson and Goldberg 2010). Such trends are reflected in the junior cycle reform efforts which

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have set out eight key skills to be embedded in the curriculum and related learning experiences (DES 2015a). Working with digital technology forms part of each of the skills. This chapter addresses key skills in the context of twenty-first-century teaching and learning and is comprised of the following three main sections:

- Section 1: The Global Context for Key Skills–Based Reforms
  This section sets junior cycle aspirations in respect of key skills in the global context of reform agendas predicated on key skills development. It explores and critiques the rationale for a key skills–based approach, and describes/critiques the particular key skills identified as being pertinent in the junior cycle reform efforts.
- Section 2: Key Skills, Digital Technology and Wellbeing
  This section addresses the role of digital technologies with respect to the realisation of key skills. It explores the links between key skills, digital technologies and wellbeing.
- Section 3: Realising Key Skills—Implications for Practice
  This section explores the implications of the adoption of a key skills–based approach with particular reference to school organisation, pedagogy (including teacher and student roles) and assessment. Potential challenges and benefits are identified and addressed leading to recommendations at the levels of policy and practice.

The Global Context for Key Skills–Based Reforms

Since the early 2000s, there has been a reorientation globally towards aligning curriculum reforms on the basis of certain key competencies or skills in addition to more established content-based outcomes. This reorientation has been influenced by both public and private sectors and reflected in the generation of a reasonably significant body of literature which typically presents frameworks for such competencies and which

reflects and employs the developing body of related terminology. The presentation and conceptualisation of such competencies as 'twenty-first-century competencies' is a ubiquitous feature of work in this area, reflecting perceived changes and demands in respect of the world of work and facilitated by developments in respect of digital technologies. The influences of globalisation and of international comparative assessments (particularly Programme for International Student Assessment (PISA)) are also evident in trends towards the conceptualisation of key competencies/skills.

What Are Key Skills?

Much of the initial work with regard to the identification and conceptualisation of twenty-first-century competencies can be traced back to the OECD (2005) *Definition and Selection of Key Competencies* (DeSeCo) project which set out to develop the theoretical and conceptual foundations for key competencies. The initial DeSeCo work identified three categories of key competencies related to the broad demands of modern life that individuals should be able to: use a wide range of tools and adapt them for their own purposes; engage and interact with others in socially heterogeneous groups; and act autonomously by taking responsibility for managing their own lives in the broader social context (Rychen 2003; OECD 2005). The resultant OECD framework set out skills which have been characterised by Voogt and Roblin (2012, p. 300) as being transversal (relevant across many fields), multidimensional (include knowledge, skills and attitudes) and higher order in nature (reflecting application and transfer). Since this initial framework, many different lists of twenty-first-century skills and competencies have been proposed, with significant overlap between them. Based on a content analysis of several proposed lists of twenty-first-century skills, Pellegrino and Hilton (2012) identified three broad domains of competence: the cognitive involving reasoning and memory, the intrapersonal involving metacognition and emotion, and the interpersonal involving expressing

ideas and interacting with others. Around the same time, Voogt and Roblin (2012) conducted an analysis of international frameworks for twenty-first-century competencies which found significant alignment across the various frameworks as to what they are and why they are perceived to be important but less alignment with regard to practice and implementation.

This work by Voogt and Roblin (2012) also identified and reflected the various terminologies used within and across these frameworks, with twenty-first-century competencies, twenty-first-century skills and twenty-first-century learning most commonly employed. Similar to Dede (2010) the key findings of this work identified how competencies in the areas of collaboration, communication, Information and Communication Technologies (ICT) literacy and social skills were evident in all of the frameworks reviewed. Competencies in creativity, critical thinking and problem-solving were also highly regarded being evident in most of the frameworks. Learning to learn and self-direction were amongst the skills identified as having less priority in the documentation reviewed. In addition, Voogt and Roblin (2012) identified some further differences and similarities between frameworks: the differences related to the ways of categorising competencies as well as the importance afforded to them, and whether or how they were related to 'core curriculum'; the similarities related to the prominence afforded to ICT within frameworks and the fact that most frameworks referred to three related literacies: information literacy, technology literacy and ICT literacy. Further follow-up work by Voogt et al. (2013, p. 404) identified how across frameworks it is generally agreed that collaboration, communication, digital literacy, citizenship, problem-solving, critical thinking and creativity are considered essential for living in modern society. However, some such as Mishra and Kereluik (2011) cited in Voogt et al. (2013, p. 404) argue that these competencies are not unique in their application to the twenty-first century but that the current focus on these skills reflects a greater emphasis on their application and relevance for all learners as distinct to having being considered important previously for a minority or sub-section of learners.

Key Skills in Policy Development

These trends towards the identification and adoption of key competencies have been reflected in policies orientated towards educational reforms initiated by many governments worldwide in recent years. Some evidence as to the extent of this has been provided by the OECD Policy Outlook (2015) which detailed how: 'In terms of content, more and more countries tend to use the concept of 21st century competencies as part of curriculum design, referring to core skills in numeracy, literacy and problem-solving as well as communication and social skills that enable students to work and adapt to rapidly changing environments' (OECD 2015, p. 82). The Skills for a Changing World Study (Care et al. 2017) found that in 2016 a review across 113 countries identified that there was a shift in aspirations as to how education should equip students for the future: 'skills were mentioned in about 40 percent of the countries' vision or mission statements and in about 55 percent of their curriculum documents' (Care et al. 2017, p. 5). Whilst Care et al. (2017) found differences across countries in factors deemed to characterise student success and the skills that are valued by countries they highlighted that twenty-first-century skills were unanimously identified by countries as the most important skills for learners: 'in line with current global dialogue and the growing recognition at the country level concerning the importance of 21st century skills' (Care et al. 2017, p. 60).

Key Skills in the Junior Cycle

In the Irish context the Department of Education and Science (DES) (2015a) identified the following eight skills in its work aimed at reforming the junior cycle: Being Literate, Managing Myself, Staying Well, Managing Information and Thinking, Being Numerate, Being Creative, Working with Others and Communicating (DES 2015a). This move towards key skills in the context of the junior cycle reforms can be understood and positioned in the context of prevailing global curriculum reform agendas. Reforming curricula to incorporate a key skills dimension is not unique to the Irish context and the eight key skills (and their

elements) set out in the Framework for Junior Cycle (DES 2015a) reflect many of the skills prioritised across frameworks globally, as identified in the work of Voogt and Roblin (2012) and Voogt et al. (2013) amongst others. Amongst the most commonly prioritised skills evident in the key skills of the junior cycle (DES 2015a) are communicating, working with others (typically referred to as 'collaboration' in similar frameworks), literacies with both 'being literate' and 'being numerate' identified as separate key skills, being creative and managing information and thinking. In addition, 'managing myself' and 'staying well' are identified as key skills reflecting an emphasis on enabling the development of the individual to incorporate self-reflection and metacognition. Whilst digital literacy is not positioned as a separate key skill, it is incorporated as an element within each key skill thus reflecting the emphasis typically afforded in such frameworks.

In terms of the overall *Framework for Junior Cycle* (DES 2015a) the key skills are presented alongside 8 principles of learning which underpin the entire framework and 24 statements of learning which are set out as informing the planning and enactment of the students' experience of the junior cycle programme. The principles, statements of learning and key skills are set out as being 'given expression through' (DES 2015a, p. 10) the learning outcomes for each subject specification providing some sense of how the key skills are positioned in the milieu of curriculum intentions—that is, they are intended to be mediated in a curriculum/subject context: 'The key skills will be embedded in the learning outcomes of every junior cycle subject and short course. Thus, teachers will have a clear understanding of how they fit into a subject, short course or priority learning unit and how to build the skills into class planning' (DES 2015a, p. 14). Although the clarity afforded to teachers is overstated here, the framework recognises the developmental nature of the identified skills setting out the aspiration that students will acquire and enhance their proficiency in these over the course of the junior cycle. The framework also sets out to link and position these skills with regard to what has been achieved in primary education and to dovetail with the skills required at senior cycle, as well as identifying a close link to the national *Literacy and Numeracy Strategy* (DES 2011) in the consolidation of literacy and numeracy as key skills across the junior cycle curriculum.

Key Skills, Digital Technology and Wellbeing

Developments in respect of digital technologies, globalisation and perceptions regarding changing demands in the world of work have been identified as significant influences on a reorientation of curricula to incorporate a key competencies (or skills) dimension. This section addresses the particular influence of digital technology on a realignment of curricula towards key skills and the potential role of technology in enabling the realisation of such skills, mindful that in the context of junior cycle reforms, digital technology appears as an element within each of the eight key skills identified. This section will also address the links between technology-related key skills and promoting student wellbeing.

Most, if not all, of the frameworks which address twenty-first-century competencies list digital technology and related digital literacy as essential for twenty-first-century living, and indeed digital technology can be considered as both a driver and enabler of such key skills acquisition. The early OECD (2005, p. 11) work identified how technology was placing new demands on individuals both inside and outside the workplace due to the potential to access vast quantities of information and to interact with others in networks online. Such capabilities lead to the consideration of related digital competencies and to making the curriculum more relevant for students in light of changing demands in the world of work. However, in addition to economic or workplace-related drivers, initial work underpinning thinking in respect of digital competencies also reflected a social vision reflecting concerns of equity and student wellbeing in addition to more overt economic drivers.

Enhancing Human Capital Through Digital Upskilling

Indeed while the economic rationale and application of key skills are often most prominent in the literature, Rychen (2003) writing in the context of the initial stages of the OECD DeSeCo project (OECD 2005) indicates a more socially orientated vision based on ‘What competencies are needed for an overall successful life and for a well-functioning

society?' (Rychen 2003, p. 110). Furthermore, Rychen articulates the view that key competencies should be considered as resources which contribute to important outcomes in the context of human capital formation rather than as ends in themselves. Such perspectives provide an illustration of a rationale for key competencies–based approaches that is more aligned with the needs of the learner and which may support the development of learner agency and wellbeing as distinct to being purely based on preparation for the world of work and the related economic benefits. This view positions key skills as bringing individual and social benefits including better wellbeing and improved social engagement. This may be understood against a backdrop of increased interest in wellbeing across education systems influenced by the United Nations Convention on the Rights of the Child (UN 1989) in which education, student wellbeing and learning are connected. The National Council for Curriculum and Assessment (NCCA) (2017) details how the promotion of key skills within teaching and learning has an important part to play in supporting student wellbeing, as when teachers plan skills-rich lessons, students are more actively engaged, feel more positive and take more responsibility for their learning.

Digital Literacy

The emphasis on digital literacy within twenty-first-century competencies frameworks is presented by Voogt et al. (2013, p. 405) as arguing for a more comprehensive approach to understanding digital literacy which encompasses students having the capacity not only to critique the material they access online but also to understand and critique the impact of the technology they are using both on themselves and on society. The technical skills to do so are considered a mere aspect of such understandings of digital literacy. Digital literacy is thus a broad and evolving concept which may entail a number of aspects and which may have a different meaning or interpretation in various contexts. Recent work by Van Laar et al. (2017) details how Ng (2012) distinguished between three intersecting dimensions of digital literacy, those being the technical, cognitive and social-emotional dimensions and presented digital literacy as being

an overall mindset which allows users to perform intuitively and effectively in digital environments. The work by Van Laar et al. (2017) positioned twenty-first-century digital skills as a sub-set of twenty-first-century skills and produced a detailed framework for digital skills/literacy which included (amongst others) technical, information management, critical thinking, ethical awareness and self-direction components.

The development of new technologies provides an ongoing challenge to the conceptualisation of 'digital literacy' although core aspects related to a critical capacity are understood as having greater long term application than more technically orientated aspects. A current challenge for educators is that of conceptualising and facilitating digital literacy education in a world dominated by social networking and social media. An awareness of the potential negative affordances of such media supports the understanding of digital literacy and digital literacy–based key skills as underpinned by a rationale grounded in supporting personal health, agency and wellbeing. This can be understood as being reflected in the junior cycle key skills elements (DES 2015a) 'Being Responsible, safe and ethical in using digital technology' and 'Using digital technology to manage myself and my learning'. In addition, the role of technology/digital literacy education and the existence of a 'techno-subsystem' are acknowledged in the NCCA *Draft Guidelines on Wellbeing in Junior Cycle* (NCCA 2016).

Enabling 'Innovative Practices' Using Digital Technology

Digital technologies, in addition to providing for certain key skills or a literacy to be mastered, are also positioned as having a potentially significant role to play in the realisation of key skills generally through their potential to enable learning experiences which require collaboration, communication, problem-solving and creativity amongst learners. Such experiences are typically conceptualised as underpinned by a 'constructivist pedagogical orientation' (DES 2015b) are technology mediated and position the teacher as facilitator of learning. The articulation of such approaches has reflected a certain reorientation of the discourse around school reforms and has given

rise to the term 'twenty-first-century teaching and learning' to denote learning experiences which bear the aforementioned characteristics. The adoption and implementation of such experiences by educators is associated with the need for 'innovative practices' within schools in which technology is employed as an enabler of learning experiences and in which students are creators and potentially sharers of their own content. This reflects a progression in the role of the learner from content consumer and emphasises an active rather than a passive learner experience. The OECD (2018) suggests the significance of learner agency which can be applied in the context of such experiences. This concept of agency implies the learners' responsibility to participate and to form a purpose and identify actions to achieve a goal: it is understood as supplemented by co-agency which reflects the network of teachers, peers, parents and others which provide the relationships which underpin learning. In addition to underlining links with digital literacy and wellbeing, two factors which enable learner agency are identified as follows:

> The first is a personalised learning environment that supports and motivates each student to nurture his or her passions, make connections between different learning experiences and opportunities, and design their own learning projects and processes in collaboration with others. The second is building a solid foundation: literacy and numeracy remain crucial. In the era of digital transformation and with the advent of big data, digital literacy and data literacy are becoming increasingly essential, as are physical health and mental well-being. (OECD 2018, p. 4)

Technology-Mediated Learning to Promote Key Skills

Some evidence of the implementation of technology-mediated learning to promote key skills in the context of junior cycle is provided by Johnston et al. (2015). This work focused on a particular approach to learning, 'the Bridge21 model' (Lawlor et al. 2010) which integrates the following key components: technology mediated, project based, innovative learning space, teamwork, skills focused, social learning, teacher as facilitator and/or mentor and learner reflection. The Bridge21 model may be considered as one of a number of similar models which aim to enact

'twenty-first-century teaching and learning' approaches. Learner participants created technology-based artefacts such as a multimedia resource document, a character or thematic blog, or a five-minute video. The activities took place across a range of subject areas that were designed and scaffolded by their teachers and adhered to the characteristics of the Bridge21 model generally.

The study had a particular interest in whether the approach employed gave rise to any change in students' awareness and acquisition of three key skills (being creative, working with others and managing information and thinking) by utilising a questionnaire instrument pre- and post-implementation. The overall results showed that students were positively disposed and enthusiastic regarding the overarching learning approach. Statistically significant gains were evident in respect of 6 of the 11 selected key sub-skills with no gains evident in respect of the other 5. Gains were evident in respect of the sub-skills: exploring options and alternatives; implementing ideas and taking action; co-operating; using ICTs to work with others; using information to solve problems and create new ideas; and thinking creatively and critically. It was not clearly discernible from the data as to why gains were evident in respect of some sub-skills but not in respect of others but the work overall did provide evidence to support the appropriateness of such approaches with regard to the realisation of key skills.

The role of technology was also reflected as a significant finding with the data reflecting increased and enhanced use of technology such as laptops, personal computers (PCs) and digital cameras although teachers considered the approach to be enabled and enhanced by technology, rather than being technology dependent. The composition of student groups, the nature of the project or task undertaken and issues related to timeframe and structure were also identified by teachers as areas for consideration in future adoptions of the learning model.

Realising Key Skills: Implications for Practice

There are many perspectives to be had on the actual implementation of key skills–based curricula in schools and the implications of their adoption for school leaders, teachers and students. Such perspectives typically

draw attention to the need for a reorientation of the dominant learning paradigm to one in which students become more active learners. The need for assessment practices to be realigned in line with key skills–based approaches is also commonly reflected in discussions regarding key skills implementation.

Key Skills Pedagogy

There is generally a consensus about the types of pedagogy needed to promote the realisation of twenty-first-century key skills, that is, pedagogy which is learner centred, is task or problem based, involves co-operative or group-based learning and, as detailed in Section 2, is technology mediated (Voogt and Roblin 2012). The relevance of the pedagogies identified above was borne out in the key skills initiative undertaken by the NCCA (2009) in which teachers in a number of schools worked to embed key skills in teaching and learning. Teachers found that developing key skills required less whole class content-based teaching and more learner-centred active learning methodologies. In this context, teachers reported using more group work, pair work, class discussion, peer teaching and peer assessment. Whilst teachers recognised the additional work involved, they indicated that there were benefits to students' learning as reflected in greater student engagement and deeper understanding of material post teaching. The potential for deeper understanding resonates with Pellegrino (2017) who associates twenty-first-century skills with 'deeper learning' with a particular emphasis on students developing transferable knowledge 'that can be applied to solve new problems or respond effectively to new situations' (p. 228). Similar findings to the NCCA (2009) were reported by Dempsey (2016) who found that students in schools which were implementing a key skills intervention reported experiencing more student-centred approaches than students in control schools, and that teachers changes their practices when afforded relevant professional development opportunities underpinned by a constructivist philosophy. However the key finding of this work was how the current culture of schools, and particularly the priority afforded to high stakes external assessments, is incompatible with key

skills–based approaches and that as developed in the following paragraphs, changes are necessary in respect of curriculum and assessment to enable the full embedding of key skills into teaching and learning practices.

As outlined by Voogt et al. (2013, p. 404) few of the key skills frameworks provide detailed descriptions of clearly elaborated curriculum standards or detail what the curriculum experience will resemble if the aims of these frameworks are to be realised. They further elaborate that despite a reasonable consensus regarding what the competencies/skills are and how they can be achieved, they are generally not well implemented in educational practice. This suggests the need for a greater level of clarity in relation to what key skills implementation entails in practice and how the realisation of key skills sits in the wider curriculum context: how are teachers supposed to address key skills alongside or in addition to established expectations regarding (subject) curriculum coverage? Whilst there are a number of possible ways in which key skills can be addressed within curriculum (ranging from new offerings within existing organisation structures to more transformational approaches encompassing a full reconceptualisation of school and curriculum structures), Voogt and Roblin (2012) detail how the integration of key skills as cross-curricular competencies within existing school subjects is the most common approach adopted. The commonality of this form of approach also indicates the role and significance of all subject teachers with regard to key skills implementation.

Developing Teacher Capacity to Implement Key Skills

In addition to addressing and defining how key skills sit with respect to core curriculum there is also a strong consensus that teachers need to be supported to make related changes to their pedagogical practice. The NCCA (2009) identified three aspects to teacher change with regard to key skills implementation: the personal, the interpersonal and the organisational. This implies that any such change at the school level needs to involve related professional development at the individual level, the creation of time and space for teachers to meet to discuss their teaching and

the creation of a school culture which supports and values such approaches. The significance of leadership is also evident in this context: both school leaders who value and support such change as well as teachers who are prepared to become leaders by developing new approaches to support their curriculum delivery. In the junior cycle reform Continuing Professional Development (CPD) relating to key skills has been provided to teachers under the umbrella of 'whole school' CPD. Workshop sessions for teachers provided information on the various key skills to be embedded within the curriculum (drawn from the Junior Cycle Framework), addressed formative assessment in the context of key skills and aimed to support teachers in planning for key skills in the context of their subject area via the provision of some generic strategies and resources for key skills implementation. Activating the digital elements of key skills was addressed as a constituent element of one such CPD workshop (JCT 2016).

Assessing Key Skills

Voogt et al. (2013) detail that the implementation of twenty-first-century key skills requires a restructuring of the curriculum so that key skills are not disconnected from core curriculum subjects. However, Dede (2010) identifies that the curriculum is already overcrowded and that there is a major challenge in deciding what to deemphasise in order to make room for students to master core twenty-first-century competencies. A further perspective provided by Dede (2010) and Dempsey (2016) is that classrooms typically lack an emphasis on twenty-first-century teaching and learning as high stakes assessments currently do not assess these outcomes. Dede (2010) proposes that valid, reliable and practical assessments of twenty-first-century skills are needed to help improve this situation. The need for new assessment frameworks is, along with the need for new pedagogies, highly prominent in the literature. One example is the aforementioned Voogt et al. (2013) call for new assessment frameworks to be developed to assess twenty-first-century competencies. Such frameworks may include developing authentic computer-based literacy assessments which can assess areas such as problem-solving and

digital literacy. In similar vein Voogt and Roblin detail how current assessment models assess only discrete subject bound knowledge acquisition and are thus incompatible with the assessment of complex competencies. Recognising the challenge associated with developing appropriate new assessment procedures and instruments, they detail that such assessments 'require complex tasks to provide students with the opportunities to apply and transfer their understandings to real world situations, to solve problems, to think critically and to work in a collaborative way' (Voogt and Roblin 2012, p. 312). A move towards more formative approaches to assessment (encompassing learner feedback) is also prominent in the discourses relating to the assessment of such twenty-first-century competencies.

Technology and Key Skills

In addition to the implementation challenges identified and addressed in respect of pedagogy, curriculum and assessment, systems of education have yet to fully draw on the potential of technologies to enable learning experiences which are technology mediated and contribute to the individual and collective realisation of key skills encompassing digital literacy (Dede 2010). This may include the potential for learning which can take place anywhere, at any time and involve others which are not in geographical proximity. Some authors such as Zhao (2015) argue that the preparation of twenty-first-century learners needs a new paradigm rather than trying to tweak or fix an existing paradigm which has little or no chance of adequately preparing citizens for the twenty-first century. Such a perspective seeks to challenge many of the taken for granted characteristics of twentieth-century systems of education such as the presence of a set curriculum, the idea of the class and the subject and that learning takes place at a certain time and in a set location, that is, the school. On the other hand, such a view extenuates personalising education and empowering learners through giving them ownership of their own learning, aspirations underpinned and mediated by a technology dimension. Such perspectives draw attention to a 'technology gap' with regard to the implementation and potential assessment of key skills outcomes. This is

recognised, in the context of junior cycle reforms, by the provision of the Digital Learning Framework (DES 2017) which sets out how technology can be an enabler of such reforms by providing school leaders and teachers with a framework to guide and inform their related curriculum planning.

Classroom-Based Assessment

There are thus many challenges to the implementation of key skills–based approaches at the macro and micro levels within systems of education. The core challenge can be considered as one of alignment—to align curriculum, pedagogy and assessment to the 'new' conceptions of worthwhile learning as articulated and reflected in key skills. In the context of junior cycle reforms changes in respect of assessment have seen the introduction of a greater emphasis on continuous assessment via Classroom-Based Assessment (CBA). CBAs are reflective of formative assessment and map onto the identified priorities for learning for each subject including the related key skills. They are typically task based, enable a level of student choice and autonomy and can be completed collaboratively. The introduction of such assessments provides an illustration of attempts to achieve greater alignment between identified priorities and pedagogy/assessment in the context of the reformed junior cycle. More generally, the following implications for policy and practice are evident from a synthesis of the literature with regard to the implementation and realisation of key skills:

- Promote schools as learning organisations and develop a culture of learning which reduces the significance placed on high stakes external assessment
- Reorientate the dominant learning paradigm to one which reflects greater learner activity and autonomy
- Provide teachers with CPD underpinned by a constructivist pedagogical orientation

- Establish greater clarity regarding the implementation of key skills in practice and how key skills sit in the curriculum milieu vis-à-vis content- and subject-based learning
- Develop new assessment frameworks and processes which can appropriately assess key skills
- Utilise appropriate technologies to enable the types of pedagogies and assessments which align with key skills

Summary

This chapter has traced the relatively brief and recent history of curriculum reforms underpinned and influenced by aspirations in respect of key skills. The emphasis on key skills has been driven in part by a reconsideration of priorities within formal education and facilitated by developments in respect of digital technologies. The role of political and economic imperatives is evident with regard to key skills. This is reflected in the significant influence of agencies such as the OECD which have been to the fore in initiating and sustaining the key skills movement since the mid-2000s and in the related influence of the business and industry sectors interested in creating a skilled workforce for economic competitiveness. Whilst the economic rationale is often considered as most prominent, the social and educational rationales are also evident in the discourses underpinning key skills: such rationales promote key skills on the basis of life competencies in their broadest sense and on the enhancement of individual wellbeing. There is a global dimension to developments in respect of key skills with many different yet overlapping frameworks underpinning curriculum reforms internationally. Developments in the Irish junior cycle can thus be understood and positioned against the backdrop of this global context.

Implementation of key skills–based curricula requires a realignment of the dominant approaches to teaching, learning and assessment to reflect approaches which are learner centred, are task or project based and which utilise technology in an enabling capacity. There are as yet few, if any, examples of fully functioning curricula based on key skills. One of the key implementation challenges is to overcome the constraints imposed

by current systems of assessment which do not align with or reflect key skills–based approaches. In the Irish junior cycle context, this is being addressed to some extent by the introduction of a greater emphasis on continuous assessment via CBAs. However, there remains scope for further investigation into the extent to which key skills have been embedded into practice at the school, teacher and student levels: Whole School Evaluation (WSE) mechanisms do not currently reflect an emphasis on learning by students in the context of key skills.

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