Better Literacy and Numeracy for Children and Young People

A Draft National Plan to Improve Literacy and Numeracy in Schools

1. Introduction

We welcome the draft plan to improve literacy and numeracy and see it at as well reasoned.

The submission from the NCTE is brief. It is underpinned by the following understanding that "e-Learning is simply all learning which takes place with the assistance of digital technology and ICT (Information + Communications Technologies) is the term used to describe all digital technologies used in education; it ranges from computers and software to digital cameras and printers and includes digital content resources. The definition is inclusive of all new and emerging technologies."

E-learning and the use of ICT is developed in Irish schools under the following premise that

- ICT is currently used as a tool/resource which aims to support the learning and teaching across every area of the curriculum and associated “digital literacy skills” are acquired and developed as part of this process. ICT skills or digital skills are not taught in isolation to the curriculum.

The development of the above is nestled in the context of the NCCA’s ICT framework which sets out the key experiences or competencies that students should have during compulsory schooling.

It is good that due recognition is given to “multimedia” in the definition of literacy and in the reference to digital media in the introduction of the draft plan. However, it must be noted that the need for children and young people to have sufficient and regular access to and use of technologies is critical in how they interact in this world both inside and outside school and in how we think of literacy and numeracy development in the future. This need should be aligned to the development of all professional development experiences, methodologies, learning scenarios and curriculum resources.

The NCTE’s message is that the use of ICTs/digital technologies can strengthen literacy and numeracy skills. Where ICT is embedded in the curriculum it can serve to engage and motivate children in the learning process as borne out in a number of evaluation reports listed in the appendix. It has proven to increase students’ self-esteem and creates a more
positive disposition towards learning as well as providing teachers with more up to date, exciting and relevant ways of presenting and engaging with the curriculum. ICT can act as a catalyst for peer teaching and learning and is hugely powerful in the development of team-work, higher order thinking, a collaborative learning and teaching environment. In particular, we have seen distinct positive outcomes in literacy where students are engaged using digital media tools e.g. FÍS/ Fís bookclub, blogs, podcasting and many others. More recently we can see how ICTs have been deployed in project maths in a number of strands to successfully support and facilitate students understanding of concepts e.g. Geogebra – interactive software as core to the teaching of geometry and using a Visualiser as a means of illustrating mathematical concepts,

The NCTE has led a number of projects where ICT has been used to explore literacy and numeracy and cross curricular themes. Two of these projects directly targeted literacy namely, NCTE’s ‘Learning from the Laptops Initiative’, www.laptopsinitiative.ie and the ‘Literacy and ICT’ developmental project. Evaluations from both reports reflect very positive outcomes in relation to how students beneficially engaged with literacy.

One of the findings from Literacy and ICT evaluation report conducted by Paul Conway (UCC) are of particular interest.

**Finding 11:** The use of diverse digital tools in classrooms had a strong and positive impact on student motivation and their identities as literacy learners.

There are rich resources online to support teachers and students in the development of literacy and numeracy skills including access to cutting edge research, exemplars of good practice and professional discussion forums as well as targeted curriculum resources. Resources of various kinds are required in every classroom but the use of online resources can greatly reduce the reliance on the text book approach and also provide teachers and students with highly engaging content and direct feedback. The Scoilnet usage statistics show that schools are making great use of the many different online resources available to them and now have the technology in most classrooms to access. We must continue to provide this access to high quality relevant content but must also engage our teachers in the development of their own content using the different technologies now available to do so e.g. Podcasts.

The curriculum content now available online is media rich in format and so provides teachers and students with a more engaging learning experience for example a multiplication tables game with feedback provided. As a result of the development of Web 2.0 technologies and tolls which assist in “user-generated content” students and teachers can now offer students with opportunities to draft and re draft their own content or to conduct intense brainstorming activities using concept mapping software or reach a much wider audience with their writings on a blog. These tools provide teachers with greater scope for the teaching of literacy and numeracy. ICT has made a
remarkably positive impact on students with SEN and has presented them with opportunities to engage and access the curriculum that would possible without technology e.g. accessible technologies such as touch screens.

In order to reach the targets set out in the DES’s draft plan we must make more appropriate and “natural” use of these “technology” resources and ensure that teachers, students and parents know how to get the most out of using these resources for literacy and numeracy.

Furthermore, digital literacies must be considered in the debate about traditional literacies. Digital literacy is an evolving concept and there are multiple interpretations ranging from writing an email, a creative writing response on a blog, a podcast to computer games. It involves students reading, writing and communicating using many different digital content tools and equipment.

Allan Martin's concept or notion as defined in his project is and would seem to sit best with where we are going in Ireland.

…it the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process.

(Martin, 2006: p.19)

Having reviewed the draft plan the NCTE would like to make the following observations and suggestions as regards ICT which, if implemented, would help to meet some of the targets referred to in the plan and which we believe would serve to improve the literacy and numeracy standards in Irish schools. NCTE is already addressing many of these requirements.

- Greater adoption of ICT is needed in everyday learning and teaching to facilitate literacy and numeracy development. For example, teachers and students need to be encouraged to use blogs and other such tools to stimulate and develop literacy skills and also develop key digital literacies.
- ICT must be an integral part of all Continuing Professional Development (CPD) and in particular of that developed around literacy and numeracy.
- In addition, the development of CPD that focuses on using ICT to support the literacy and numeracy is required. Specifically, there is a need to strengthen teachers’ understanding and use of digital media tools (e.g., digital video) in the process of oral language, reading and writing acquisition and development.
• The role of technology in addressing teachers’ own professional development activities needs to be recognised and supported, given the vast amount of online and other digital resources tools available to teachers.
• Inclusion of ICT in in-service and other CPD supports for specific curriculum initiatives needs to be supported. For example, the NCTE works together with Project Maths to provide both ICT input to the Project Maths in-service and to provide additional professional development specifically on ICT and Maths.
• Professional development opportunities for teachers on the role of ICT in assessment of and for learning will be needed.
• Online resources for literacy and numeracy need to be available. For example, the NCTE provides content and other resources to address literacy and numeracy through Scoilnet and other fora.
• Similarly, online facilities for students to create and share resources related to literacy and numeracy are needed. For example, students can publish book reviews and other reading stimuli via the online FíS bookclub.

In addition to the above, publishers, other technology/content developers and researchers have a key role to play in the role of ICT/digital resources in literacy and numeracy development. Two specific suggestions are mentioned here in this regard:

• Text book publishers should be encouraged to provide highly engaging content to support literacy and numeracy for home and school use as they move to online provision. Emerging interactive digital “textbooks” have a role to play in teaching and learning change and in assisting pedagogical evolution.
• The development and popularity of gaming may have many potential opportunities and consequences for literacy and numeracy development and needs to be researched.

Assessment

It is clear from all recent reports and in particular the findings from the Inspectorate’s incidental visits to schools that good assessment strategies are necessary. Teachers need to be able to gather data in multiple formats and analyse so that they can then different the teaching and the learning to meet the needs of their students. We must examine the potential of technology to develop assessment tools/applications that assist in the gathering and analysis of data as to facilitate teachers’ planning for differentiation in literacy and numeracy and work has already commenced on this by the NCTE in collaboration with the PDST and will involved all stakeholders in due course.
Appendix 1

Relevant References:


FÍS, www.fisfestival.com

FÍS Bookclub, www.fisbookclub.com

Futurelab -Digital Literacy across the Curriculum


NCTE's 'Learning from the Laptops Initiative', www.laptopsinitiative.ie
