ICT: the 'invis

Have you ever imagined a classroom where Information and Communication Technology (ICT) is part and parcel of teaching and learning? Where students from junior infants to junior cycle have opportunities to develop ICT literacy across curriculum subjects? Where ICT is invisible—not because teachers and students don't have access to it—but because it has become so much part of daily teaching and learning that it is transparent?

Three years ago, the NCCA began to imagine this future for all schools. With the support of ICT experts, we developed a draft *Framework for ICT in Curriculum and Assessment*. The ICT Framework was designed as a practical resource for teachers to plan teaching and learning with ICT across the curriculum, from primary school through to the completion of junior cycle.

Is ICT a curriculum area?

No. Internationally, countries now opt to embed ICT across curriculum subjects rather than establish it as a separate subject.

Is the ICT Framework a syllabus then?

No, the ICT Framework is a cross-curricular tool for planning and using ICT in curriculum and assessment.

So, what does it include?

It has four objectives. These focus on enabling students to

→ create, communicate and collaborate with ICT
→ develop ICT foundational knowledge, skills and concepts
→ think critically and creatively with ICT
→ understand the social and personal impact of ICT.

There are outcomes outlined for each of the objectives above. These outcomes are the skills, attitudes and knowledge considered important for students to develop.

Are some of the outcomes more relevant at different stages of students' education?

All outcomes are important to students from junior infants to the completion of junior cycle. Learning, and what it might look like across the four objectives, is described for children at three levels— lower primary level, upper primary level and lower second level.

Feedback

The draft ICT Framework was completed in 2006. To test its effectiveness, teachers in twelve schools opted to use the framework and to provide feedback to the NCCA during the 2006/2007 school year. The key questions for the teachers were: *To what extent and to what effect was the ICT Framework*

1. **accessible** in terms of its language, structure and content
2. **helpful** in planning the use of ICT in curriculum and assessment
3. **feasible** to use at class and school levels?

What did we learn?

Teachers in the twelve schools in general responded positively to the ICT Framework and its potential to achieve the vision of ICT literacy for all students.

Accessibility

Teachers liked the structure and layout of the framework. Some teachers found the language accessible while others asked us to reduce the use of jargon and technical terms.

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> " The ICT Framework is a great idea. It is great having a structure and an outline of what students should be doing with ICT. It will be a great help for planning the integration of ICT across the curriculum.

> I found the language very accessible, even approaching it with a slight fear of all ICT! I think all items in Level 1, which I was working from, were very clearly laid out and easy to understand and follow. "

Usability

Teachers found the framework useful as a tool for planning ICT across curriculum subjects, including planning with other teachers at school level. They told us that its depth and breadth was appropriate for the kinds of ICT-supported activities they would like to undertake with their students. However, a number of teachers were unsure if the levels were realistic for their students or if they were pitched at too advanced a level. Other issues focused on concerns about the size of the ICT Framework, and the level of teacher competence required for effective engagement.

Feasibility

How feasible did teachers think the ICT Framework was for schools? Positive findings focused on the ICT equipment provided, opportunities for discussion and support from other teachers and NCCA staff, and resources shared (lesson planning tools, etc.). However, teachers also identified concerns.

These referred to lack of or limited:
→ access to ICT
→ quality and capacity of ICT equipment
→ technical support
→ time
→ continuing professional development (CPD) for teachers.

What do these findings mean?

The NCCA has identified four recommendations arising from this work with schools on the ICT Framework. These focus on
→ developing further support materials, including planning tools, sample activities, etc.
→ embedding ICT in curriculum, assessment and examinations across subjects and syllabuses
→ investing in ICT infrastructure in schools
→ providing continuing professional development (CPD) for primary and second level teachers for ICT in curriculum and assessment.

> " The ICT Framework has made me really think about my teaching methodologies. ICT provides great opportunities on how I present things to students. More importantly, I see great potential in providing more active experiences for my students.

> It is a super framework but there's just so much in it and we already have so much to do! "

It's clear that all of these actions are key to successfully using the ICT Framework in schools. Without these four supports, the vision of ICT literacy for all students promoted in the framework will remain aspirational.

The full report on the initiative with schools has been issued as advice for the way forward to the Minister for Education and Science and is available on the NCCA website. The revised ICT Framework has been published online too and is available at: **www.ncca.ie/publications**.

> **Could we be expecting too much for this level?**
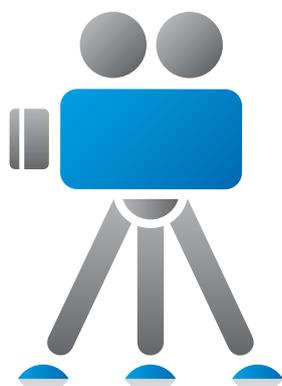>
> **Is the [ICT Framework] directed towards teachers who are confident with what they're doing in the area of ICT already?**

In the meantime, if you're looking for ideas to use ICT to support teaching and learning, check out the Sample Activities published on the ACTION website, at **http://action.ncca.ie**. These were developed by teachers as part of the ICT Framework online. They include lesson descriptions, photos and digital videos of classroom work and sample teacher-generated resources. If you'd like to share ICT activities you've used with us for the ICT Framework online, we'd love to hear from you! You can contact us at: **newsletter@ncca.ie**.

> **Teachers found the framework useful as a tool for planning ICT across curriculum subjects, including planning with other teachers at school level...**

ICT Framework: Four objectives

Creating, communicating and collaborating

Thinking critically and creatively

Social and personal impact of ICT

Foundational knowledge, skills and concepts

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