OFSTED - The Importance of ICT (March 2009)

OFSTED Report and the Schools ITQ

OFSTED is the Office for Standards in Education [1]

The development of the Schools ITQ [2] is in part a response to the 2009 OFSTED report "The Importance of ICT". These new members of the INGOT family of qualifications are based on the same methods as the original INGOTs with modifications to fit newly emerging Assessment of Pupil Progress (APP), feedback from customers and measures to support improvements that are needed according to the OFSTED report. To provide an idea, we have taken some key quotes from the OFSTED report and explained how the INGOT assessment strategy applied in the Schools ITQ is designed to help solve the problems identified.

Examples of how the Schools ITQ can help avoid problems identified by OFSTED

"*Most of the primary schools ensured pupils received their full entitlement to the National Curriculum for ICT, although commonly the curriculum was not well balanced. Teachers tended to give more attention to those aspects of ICT where they themselves felt confident.*"

We will provide an increasing range of free resources from the INGOT community resources site to enable teachers to become more confident with less familiar aspects of ICT, prioritising aspects where industry change is taking place. We emphasise the use of the internet and open standards because this is a key international change that will become more and more significant as children get older. We also emphasise underlying principles that enable the development of transferrable skills. We provide training to keep assessors up to date and the assessors' Account Manager is always available by e-mail or telephone to explain and give advice on IT in general as well as the INGOT assessments. The assessors' guides linked to the Entry level criteria provide further guidance on what children should know. The on-line mark book supports assessment of pupil progress (APP) and all assessor guidance details for individual assessment criteria are linked to APP style criteria at the appropriate level.

(In secondary schools) **"*teachers gave too much emphasis to teaching students to use particular software applications rather than helping them to acquire genuinely transferable skills.*"**

While we believe it is important to teach some specific skills and techniques, the emphasis in our supporting on-line course [3] is on transferrable conventions and techniques. eg grouping objects in vector graphics programs, CTRL C to copy, uploading and displaying graphics in a web page. These are all easily transferrable across software applications provided you have some knowledge that they are and that you have some opportunity to use more than one application that employs the techniques. For this reason our free on-line courses will, where ever possible, use free applications from the internet that learners can download at no cost and legally try out. In addition, this supports the inclusion agenda. We do not require schools to use any specific tools but we do encourage them to broaden their experience of what is available so that they and their learners can make informed decisions about the tools they use.

"*Most students who chose not to pursue an ICT qualification at Key Stage 4 did not receive their statutory entitlement to the National Curriculum for ICT.*"

We believe that most learners can achieve the current levels expected by GCSE IT and alternative

(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m) })(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send', 'pageview');

courses by the end of Key Stage 3 if the progression route from primary school is sound. However, as part of the Schools ITQ programme we will provide external independent certification of the fulfilment of statutory requirements. Since we make annual visits to schools and sample learners' work, we can check schemes of work and provide on-line courses that will cover the necessary programmes of study at the same time as picking up the assessment criteria for the ITQ, This then provides confidence that learners are receiving their entitlement as well as gaining the National Vocational Qualification for IT Users. We have some evidence to support the assertion that Level 2 attainment is achievable at age 14 from early adopters of INGOT qualifications. Certification of children in primary school increases their focus and motivation because there is a formal recognition of their achievements. The assessor model provides a framework for staff development that is embedded in practice (and can be linked to the TLA Stages). This supports cross-phase progression and enables greater consistency and higher starting points at the beginning of the next phase. By emphasising capability in using the internet as a learning platform, (we believe the concept of a single software application being a learning platform is fundamentally wrong) by the time learners in primary schools reach Key Stage 4 they should be using web pages routinely as a replacement for paper based systems for recording their work and the KS4 Programme of Study should be inherently embedded across the curriculum. This also fits the government target for every learner to have an e-portfolio.

Note that the skills required to independently construct an e-portfolio are level 2 in the National Occupational Standards so at present many of not most learners never reach this in KS4 and certainly not in the context of web applications. We provide all the facilities to do this for free for anyone but there is no obligation to use our systems. In practice it is likely that learners will use a combination of systems in any case, linking pages between them, that is how the internet outside schools works. If learners achieve Level 2 by age 14 (or earlier) we need progression routes for them and we aim to provide manageable level 3 qualifications involving a greater emphasis on computer programming and enterprise than in the statutory curriculum. Key Stages are statutory structures but they are an anachronism in a world of personalised learning because they make the assumption that most people will be broadly at the same point at the same time and clearly this is not the case. This can limit high attainers who could achieve QCF Level 3 qualifications by age 16 and can also demoralise those with special needs.

"*...find ways of making ICT readily accessible to students in their classrooms so that it can be used to improve learning in other subjects.*"

We emphasise open standards, web based learning and free and open source software because these all have the capacity to reduce costs and enable a more ubiquitous spread of technology to classrooms. This approach also enables learners to use the same applications at home without worrying about copyright and licensing. The free on-line courses [3] we provide draw on cross-curricular contexts, particularly literacy, numeracy and things scientific. The emphasis on student teams and project work with a learning focus means that schools can, if they wish, direct learning contexts to reflect any subject. We make all resources available under Creative Commons [4] licenses so schools can take our work and modify it to suit their own purposes without having to start from the beginning. We expect the highest attaining learners to produce professional standard interactive learning applications for others to use and these can be in any subject area. We are providing a strategy for learning through progression routes that enable learners to make increasingly sophisticated use of ICT in their wider lives including across different subjects.

"*much of the work in ICT at Key Stage 4, particularly for the higher attainers, often involved consolidating skills that students had already gained*"

We will provide progression routes to Level 3 from the lowest levels of attainment so that no learner should stand still. Passing the level 2 qualification with distinction will be particularly demanding offering the higher attainers more opportunities to show what they can do. e-skills UK is currently working on new specialist learning units for the Advanced Diploma that cover computer programming, enterprise and mathematics for computing. We intend to support qualifications based on these units that will be suitable for high attainers in KS4 and will broaden their expereince before making choices for Post-16 education. This means they can carry forward credit achieved in KS4 to their higher studies. In some cases schools might accelerate learning further so that learners start

(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m) })(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send', 'pageview');

foundation or Open University Degrees at age 17 or younger. The implications of personalised learning are that a small but significant number of learners will complete all the requirements of university entrance a year or two earlier than normal. This could of course be used to provide time for a gap year, work experience, charity work or other less formal educational activities.

"In the sample of schools visited since 2005, the quality of assessment has continued to be the weakest area of provision"

The INGOT assessment model and on-line mark book have been designed to make it simple to manage ICT assessment either in the context of a specialist subject or across the curricululm. We have analysed systems of assessment to develop methods that provde sufficient evidence to inform improvements using e-portfolios and to provide a basis for quality assurance. Minimising the tedious bureaucracy that has dogged coursework assessment for years is a key aim as this will lower costs as well as reducing boredom. We have lighter touch assessment for low stakes qualifications where an error in outcome is not as important as supporting and encouraging participation eg in Entry Level 1 and more so with P-scales. We have more rigorous methods to quality assure a top level 2 qualification partly to give confidence that the holder of the qualification is a "star performer" but also because more complex and high levels of attainment merit a more sophisticated approach to assessment. This also helps reduce costs because the assessment is more appropriately targeted on need rather than putting every candidate through an identical regime.

The curriculum for information and communication technology (ICT) in Key Stage 4 is not improving, and the development of ICT skills to support learning across the curriculum remains too dependent on the expertise of individual subject teachers.

From October 2009 we will be investing around £400,000 in free course materials to support the Schools ITQ qualification and ensure it not only satisfies statutory requirements but is up to date in areas such as cloud computing, the internet as the ICT platform and computer programming. We will be drawing on expertise of partners in Romania, Bulgaria, Czech Republic, Germany and Spain as well as industry contacts through employer groups such as the Open Source Consortium [5] to ensure that the resources are up to date both technologically and educationally. By enabling the community to edit and re-use these resources in the style of Wikipedia, we can add further value through the participation of the community. Learners will have the opportunity to work in teams to devise their own learing resources in the style of Web 2.0. [6]

(Lack of) .."provision for students to learn the logical thinking necessary to program, write scripts or macros"

We are supporting a natural progression route for web development and the use of collaborative technologies (the associated ITQ units are a mandatory part of the Schools ITQ qualifications at level 1 and level 2). The reason for this is that if we want learners to use e-portfolios routinely for recording their work they need to be provided with the underlying understanding, skills and knowledge. If they can use and edit HTML they will have more flexibility and control over their work than if they exclusively use word processor style editors. If they can use Javascript (ECMAscript) they can make pages interactive. If they can use PHP they can build entire data management systems and all these tools and associated support from documentation and on-line communities is available at no cost from the Web. Quite apart from the practical capability that this learning supports, there is the development of general personal learning and thinking skills. (PLTS). We will encourage learners to support their own on-going learning through free resources available to them from the web. By using such resources we also lower barriers to participation because no-one needs to install any software, the applications are managed remotely for the user at no charge. If they learn how to support their own learning in ICT in this way they will find that learning in knowledge based subjects is simply a matter of getting practice with searching for information and understanding the sources that provide it. It is a longer term goal of the INGOT community project to provide coherent support for all subjects in the 5-19 curriculum free and on-line. This will enable anyone with an internet connection anywhere in the world to get an education.

"Schools that had implemented a virtual learning environment were still considering how to use its functionality effectively beyond simply moving files between home and school."

(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m) })(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send', 'pageview');

Evidence from the early INGOTs show that both teachers and learners are over-focussed on desktop office applications. They readily attach document files to web pages when the same information could be made available directly in the web page. This is endemic in the adult world with "Powerpoint" files used to share digital information when simple web pages would be more useful enabling individuals to manage the information in a connected way. Other examples include collecting information on proprietary document forms when a web form would be a much better method. The main reason a web form is not used is lack of basic skills in the people collecting the information. They can use a word processor but they are unable to transfer this to more appropriate on-line applications even though these are freely available. The expectations for take up of VLEs and e-portfolios is unlikely to be realised without a learning strategy to make it happen. A key element of the Schools ITQ is to move learners and by implication their teachers to become natural users of the web as the platform so that they can become self-sufficent and informed decision makers about their take up and use of a range of technologies using appropriate tools at appropriate times.

"*Similarly, audits of staff training needs were rare and, despite training being available, there was usually no formal system for measuring its impact on improving teaching and learning.*"

The INGOT methods of assessment integrate staff development with the process of learning, assessment for learning, managing peer assessment and up dating technological knowledge. This links to the Teacher Learning Academy Stages and the Specialist Schools Community planning. Assessors have to agree to uphold standards and meet with colleagues to discuss standards as well as manage the learning being assessed. Since the free on-line courses provided support assessors as well as learners and will be kept up to date, the need for traditional CPD is much reduced. We know from past experience that the traditional methods of getting teachers out of classrooms to attend generic training courses in ICT has had little impact so why should it in the future? If we expect learners to participate in lifelong learning and learning how to learn to be self-sufficient why not their teachers? Of course this requires changes in the way teachers operate. The "carrot" for this is to provide them with the free resources to change the teaching and learning styles and give them the flexibility to participate in further development if they want to. If learners respond better to these styles they become easier to teach and therefore there is a positive reason for teachers to make the change. The measurement of impact on teaching and learning can be taken from the range and level of certificates achieved and the content of their e-portfolios.

"*There was little clarity about the choice of particular qualifications at Key Stage 4 and the proportion of timetabled lessons allocated to them.*"

There is a case for needing fewer ICT lessons to reach a given standard *if* ICT is in use across the curriculum or there has been a strategy for accelerating learning in ICT in the earlier years. Considerable learning can take place outside specialist lessons. ICT lends itself to anywhere, anytime learning if learners have unrestricted access to the internet and systems are free and open. Barriers to entry need to be minimised and simply being able to go to a web page and get started is the ideal scenario. If there are costs involved, need to install software or even moderately complex sign up procedures, a barrier to entry is raised and that in turn leads to issues of equality of opportunity. In our view the biggest issue with qualifications is when very large numbers achieve the highest grade in a target client group. This means that there is little information about different levels of attainment and so the reason to have a grading system is lost. In particular, high attainers do not get the credit they deserve and are in danger of simply marking time. The schools ITQ is designed to support progression routes that are coherent and age independent from Pre-Entry level to the equivalent of GCSE A* grades and beyond.

Source URL: https://theingots.org/community/ofsted

Links

(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m) })(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send', 'pageview');

-->

[1] http://www.ofsted.gov.uk
[2] http://theingots.org/community/SchoolsITQ
[3] http://theingots.org/community/ITQcourse1
[4] http://en.wikipedia.org/wiki/Creative_commons
[5] http://www.opensourceconsortium.org/
[6] http://en.wikipedia.org/wiki/Web_2.0

(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){ (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m) })(window,document,'script','//www.google-analytics.com/analytics.js','ga'); ga('create', 'UA-46896377-2', 'auto'); ga('send', 'pageview');