



How Children and Teachers Use **Technology** in the Classroom

What Dubai's school inspectors have found so far

Why are we interested in this topic?

The Dubai Schools Inspection Bureau (DSIB) has been inspecting schools in Dubai for almost four years. The first visits by inspectors in 2008, and every year since, have given the education authority - the Knowledge and Human Development Authority (KHDA) - the opportunity to build an accurate picture of how Dubai's children are taught. This evidence is driving KHDA's mission to improve education in Dubai. Part of the insight we have gained is the use of information and communication technology (ICT) in classrooms.

With this report we would like to share some of our observations and findings about ICT with you.

Some schools have wonderful ICT, some have to **improvise**

In the three completed years of inspections in Dubai so far, we have found that ICT is being used more and more effectively as a tool for learning. Access to ICT resources has improved, and this has become an important part of teacher training. As the number of interactive whiteboards and projectors has grown, more teachers have been encouraged to use video and other media as a routine part of their teaching.

In some schools, particularly the new ones, facilities and resources available to students are among the best in the world. Good teaching practice now dictates that ICT resources be used effectively to promote students' skills of enquiry and research. Even in schools where ICT portals and resources were more limited, a few teachers and their students made creative use of ICT.

One example our inspectors observed was a Grade 12 boys' science lesson where the classroom was small, student numbers large and there were not enough ICT resources. So the teacher used internet network software to project an experiment onto the wall for all students to follow. Another example was in a school where textbooks had not arrived in time for the start of the academic year; Grade 11 students downloaded information onto their electronic tablets to study until hard copies arrived.



Good teaching practice now dictates that ICT resources be used effectively to promote students' skills of enquiry and research.



Great, but what about using ICT in **lessons**?

Dubai has 13 curricula taught in its schools, and the “Good” inspection evaluations of curriculum quality usually showed moves towards a varied approach to developing pupils’ skills, including the use of ICT. However, inspectors found that the skills of research, enquiry and critical thinking and their direct link to the use of ICT were generally more underdeveloped.

In fact, although teachers now use ICT more regularly, we noticed that many students still have insufficient access to ICT to support their education across all subjects. A significant majority of students use ICT regularly in an ICT suite or at home, rather than as routine across subjects. This does little to help their progress and independence in learning.

In fact, although teachers now use ICT more regularly, we noticed that many students still have insufficient access to ICT to support their education across all subjects.

How can schools keep up with their **pupils**?



Resources vary, experiences of teachers vary and most students are more ahead in their experiences and understanding of ICT than we think. Computer suites should be available in almost all schools; last year a minority reported in their schools profiles that they did not have such facilities for supporting the delivery of the curriculum.

We found that more understanding of today's learners is needed so that schools can make better links with technology.

General access for student and teacher use may be variable, as will be internet access. In some schools you may also see wide usage of the ICT as a portal for school administration and for use by students and teachers in the access and delivery of the curriculum.

As mentioned above this can range from all classrooms with data shows/interactive whiteboards/projectors to more enhanced use of iPads, iPod touches, net books, Playbooks, use of mobile phones for hotspots/apps etc.

We found that, generally speaking, more understanding of today's learners is needed so that schools can make better links with technology. For example, if a child knows how to use a wide variety of ICT, how can his/her school make use of that knowledge in the classroom? How, we wonder, will schools continue to manage the impact of ICT in developing their students' skills?

We found that some schools were on the right track

However, there are shining examples of good practice in Dubai's schools and we have been encouraged by much of what we have seen on our visits. **Here are a few examples:**



Jumeirah English Speaking School

This school has taken significant steps to integrate ICT into the life of the school. It clearly achieves the aim of developing skills necessary for students to use ICT in a responsible and discerning manner. A stimulating range of ICT learning resources are used creatively by students and teachers to support and challenge learning at all stages. Carefully planned curriculum programmes with access to digital devices, including touch-screen computers, laptops, iPads and iPod touches, ensure that students from KG to Year 6 are confident about finding information out for themselves and applying their learning to broader, real-life contexts.

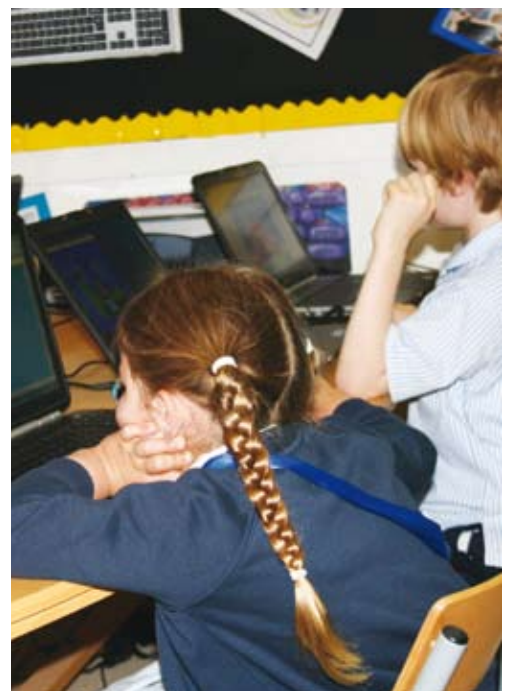
It clearly achieves the aim of developing skills necessary for students to use ICT in a responsible and discerning manner.



American School of Dubai

As another school which readily embraced technological changes, inspectors observed ICT used imaginatively to discuss and debate issues around a set text. Teachers assumed the role of facilitator managing discussions, having structured the physical and electronic opportunities to do so creatively. Such exercises were instrumental in extending learning opportunities for students.

Inspectors observed ICT used imaginatively to discuss and debate issues around a set text.





Dubai National School

This school was managing technological change in a structured manner. A customised, interactive management portal was effective in supporting and providing e-learning tasks for students' academic development. The curriculum was enhanced and simulated by managers and teachers; homework was issued and tracked, and assessment and reporting made available for all stakeholders to see and comment on. The introduction of iPads from Grade 5 onwards arose out of two concerns – first, the need to advance the skills of students and, second, the health and welfare of students having to cope with the increasing weight of school bags containing heavy books. The school focused on electronic storage of textbooks and use of a stylus to write and download notes to solve these problems, which also gave pupils experience in further use of technology.

A customised, interactive management portal was effective in supporting e-learning tasks for students' academic development.

The need for schools and teachers to rise to the ICT challenge



There is no doubt that young people are aware of the skills and benefits ICT offer to their academic growth and development. Because of this, we feel that schools must continue to embrace change in their approaches to ICT if they are to provide students with the knowledge and skills they need.

Although schools are well aware of the curriculum decisions to be made concerning the use of ICT lessons, efforts need to be enhanced to integrate ICT as a learning tool across the programmes of study. Such deliberations will no doubt require further ICT training as part of the process schools will undertake in the future.

Efforts need to be enhanced to integrate ICT as a learning tool across the programmes of study.

Those schools which have embraced change quite rapidly display a clear understanding of the power of ICT portals for communication and links with parents, as well as enhancing learning opportunities. Many schools are also aware that they need to focus more clearly on the development and understanding of the use of technology by teachers.

This can be achieved by training more teachers to be confident with technology in order to use it in creative ways. Finally, we believe that those schools with limited resources must be included in this process so their students do not lack the skills which will affect their chances in adult life.

This can be achieved by training more teachers to be confident with technology in order to use it in creative ways.



How Children and Teachers Use Technology in the Classroom

