

In this article, first published in Independent Learning Schemes: A Practical Approach, Andrew Stokes considers the impact of technology on independent learning.

ICT - and independent learning

At 9 o'clock yesterday evening, from my sitting room armchair, mug of coffee in hand, I observed a primary 6 class (aged 10) planning their end of term production, Bugsy Malone. The point at issue was the design and contents of the splurge guns. How do you fire custard at each other without making an terrible mess of the school gym - and putting the Chairman of the Governors' smart suit in unacceptable jeopardy?

The class was not, thankfully, in my living room. Clearwater Bay School in Hong Kong recently set up a pilot study for a CLC (Connected Learning Community), a virtual learning environment which enables teachers to set homework tasks and collect them, to post photos of recent class events within a secure environment and to enable online class discussions such as the one I witnessed.

While the CLC goes far beyond what is available to most teachers, it serves to clarify the direction that educational technology is moving in, and to illustrate some of the outcomes teachers can seek whatever the level of ICT in their institution. I'll focus on key outcomes related to learner autonomy and independent learning:

- extending learning opportunities
- empowering students
- rationalising classwork and self study
- building the concept of a learning community
- enhancing motivation

Moving the boundaries for learning

ICT, particularly when Web-based, though also through the provision of student laptops, is able to extend learning beyond the school day and beyond the confines of the building. Students have always worked independently or semi-independently at home, writing essays, filling in worksheets and putting extra hours into areas where they feel they need improvement. But the nature of the off-site learning experience provided through an ICT-enabled learning environment is quite different. Let's consider some of the motivating learning paths that the new technology is opening up. (Note that with the exception of online discussions these paths are equally open to students in the lab.)

As seen above, independent learners of almost any age can interact with peers in real time by participating in discussions through instant messaging or a discussion forum. These interactions become not only very animated, but also highly focused because the dynamics of online discussions are very different from those of a classroom. Each student is sitting alone and is less subject to distraction by peers. Often one student will independently choose to become a monitor and will keep the discussion on track when other

students get sidetracked. Interestingly, this may be a student who is timid in class but feels empowered by the new medium. (The quiet ones are often the bossiest!)

Online discussions of this type can be at any point on a continuum which stretches from the highly controlled, where a teacher organises and monitors, to the truly independent where a learner finds and operates in a forum that is not connected to their learning institution in any way. Some of the most successful occur between the two, where, for example, a teacher collaborates with an equivalent institution overseas and sets up a 'free' discussion area to which all students have access. To get the ball rolling a specific cross-cultural investigation can be set up, but monitoring can gradually be withdrawn and discussion can then be allowed to develop in any direction the students choose. If the students gel it can become a completely independent forum. If interest begins to wane, the teacher may (or may not) set up another more controlled activity to get things going again.

Empowerment is also an issue back in the formal learning environment. In class, teachers have traditionally aimed at the centre point of the group in terms of ability, so as to give the greatest benefit to the greatest number of students. Inevitably this means that the most gifted are to some extent held back while the less able may be left behind. ICT in independent learning is a great facilitator for enabling all students to reach their full potential. To the extent that we can talk about independent learning within the classroom, a bright student who finishes an exercise quickly can move on to something more challenging of their own choice. They could always do that with paper and pencil, but now they can interact with the software, putting in their answers and receiving explanatory feedback: it is a much more dynamic and fulfilling experience. This interactivity means that the average student requires less teacher input, freeing her up to spend more time with those who might be struggling.

Clearly, outside the classroom the student is further empowered to work on his own particular challenges. Let's look at the very simple (authentic) example of a student learning Spanish who has difficulties with the tongue flap in pronouncing the /r/ sound. He can choose to spend as much time as he likes practising this in initial, middle and final position using a range of words presented by an online Spanish pronunciation program. This is not an option open to him in a class of twenty students, and crucially, is a learning objective he has defined himself.

But empowerment goes beyond a choice of learning objectives. Institutions block students together artificially into classes. The reality, of course, is much more complex, and an ICT environment can blur the distinctions between year or class groups so that students can to some extent find their own level on the institution's learning continuum. It's potentially an organisational nightmare for teachers, I admit, but what if students had open access to tasks and activities set by teachers for all language-level groups? They could then, anonymously, go back to



the topics they didn't really understand in previous years and have another go at them. They could push forward and try new activities set for higher groups. We don't trust them to do this; but should we?

Not only could this approach help boost students' confidence, it would also break down the concept that learning is done in blocks with the focus on the end of year or the next set of exams, would foster a more longterm approach, and would place a greater responsibility on individual students to set and meet their learning objectives.

In practical terms, ICT offers opportunities to students to cover areas of learning that may be important to them, but may not be on the syllabus. An obvious example is exam practice. Many students who intend to study overseas do not have the opportunity of taking a specific IELTS preparation class. But why an ICT-based resource rather than the traditional pencil and paper? Let's focus on the IELTS speaking module and one exercise in Study Skills Success, an IELTS preparation package available on CD-Rom or online.

This exercise can be done alone or, ideally, with a study partner. First the students look at an information screen explaining what the examiner is looking for: fluency, accuracy, relevance, pronunciation, and the ability to link ideas. The screen displays two typical IELTS short talk tasks and the students then listen to four candidates attempting the task. These candidates are of differing abilities from a band 3-ish up to a native speaker, and as the students listen they grade each candidate according to the five criteria specified in the presentation. This helps to heighten their awareness of what these rather theoretical concepts mean in practice, and also enables them to understand that even the native speaker speaks with umms and errs, makes grammar mistakes and goes back and repeats himself. When they have finished they can compare their findings with those of an examiner.

Using the recording device, the first student then attempts the first task ('Talk about an invention that has had a major impact on your life'). Both students listen to this attempt (as often as they like) and grade it, applying the five criteria, and the process is repeated by both students for both tasks. Not only does this exercise provide extensive speaking practice in a task of exactly the type they will have to tackle in the exam this boosting confidence; it is also very valuable in raising awareness of the areas they need to focus on to improve their performance. I suppose it would be possible to set up an equivalent task with a cassette and paper, but it is far more accessible and user friendly as part of a progression of activities ICT within an ICT-based study programme.

Finally, a word must be said about motivation. While a forthcoming IELTS exam provides a powerful motivation for students to study, independent learning in general is much more likely to succeed if it is enjoyable. There is something about ICT which students find irresistibly attractive: I observed

an experiment where one class was given paper based worksheets. The task was done with much moaning and a distinct lack of enthusiasm. A parallel class was given the same exercises on the computer: they got straight down to it and asked for more at the end. It's not just that the computer is something new - it isn't any more - it's something enticing about the medium that we don't yet understand. Suffice it to say that it works, and in independent learning that is critical.

More work for the hard-pressed teacher?

These, then, are some of the benefits that ICT can bring to the students. But it is not realistic to expect learners to engage in and benefit from independent ICT-based learning without their teachers having a thorough grasp of the medium. This applies whether the learning occurs within the institution - in the self access centre, or, as discussed above, in class - or at home. The teacher needs to show students how to use the resources and needs to be confident in doing so. She should begin by including an ICT element in coursework and should gradually release control as the students gain greater independence. This can raise a dual problem: firstly, teachers are often reluctant to let go, and secondly students may think that once the teacher is no longer a controlling part of the activity, that activity to some extent loses its importance. Students must therefore be aware that the teacher appreciates what they are doing. The whole thing requires very delicate management.

We need to be completely clear, then, that a fundamental criterion for the effective implementation of ICT into independent learning is the provision of ongoing training for teachers.

How can this be achieved without placing an intolerable load on the teacher (who, typically, is somewhat ICT-averse)? Over the past ten years or so the integration of ICT into teaching has followed a consistent path across the world. It works in three stages. First stage: hardware, but no software budget. Second stage: software but no training. Only now are we approaching the third stage; organisations are becoming aware that training is necessary - but often there is still no money to pay for it. As most institutions are at the pre-phase-three stage, let's examine how this can happen with a minimum of additional work and cost in a small school.

The main objectives of the training are:

1. to help teachers form a rationale for when and when not to use ICT, and in so doing to ensure they understand how ICT can benefit students;
2. to enable teachers to feel confident in using the ICT resources with their students and in enabling their students to strike out alone;
3. to generate enthusiasm among teachers for the new medium (which involves removing fear).

Imagine that you are in an English Department of six teachers and have been given three new software resources by the institution. Start by splitting up into pairs, each pair to be responsible for ICT for a term or a semester. The first pair, logically the keenest and most ICT literate, sets up a one-hour teacher



training session. To do this they sit down together and work through one of the software packages focusing on the functionality and the content. They draw up a worksheet with perhaps ten questions of the type likely to be asked by students: *How do I move to the next exercise? How do I get marking? What is the hint in the second question of the simple past exercise?* During the training session, the other two pairs work together through these questions, and by answering them they both familiarise themselves with the program in a very efficient way, and boost their confidence in using the software with their students. The next term, another pair takes over with another piece of software. It may seem a slow process, but it is incremental, giving teachers time to try out one program thoroughly with their students before incorporating the next into their repertoire.

How about helping teachers develop a rationale for using ICT? I always come back to Pete Sharma's activity from *CD-Rom: A Teacher's Handbook* because it is so simple and so effective. Draw two columns on the board and label one *Role of the teacher* and the other *Role of the computer*. Teachers work in pairs and fill each column with four or five items. For example, under *Role of the computer* they might write *Working on finite language areas*; under *Role of the teacher*, *Negotiating learning objectives*. This activity always generates lots of discussion, and it really helps teachers to crystallise the concept of the computer as a tool with specific strengths and weaknesses.

We have considered the importance of training teachers; we often ignore learner training. There may be 50 individual ICT learning packages in an independent learning centre, and all too often students select one that is at an inappropriate level or that is not relevant to their course of study. Clearly students need to be directed to packages which are stimulating, within their capabilities and able to stretch them. This is not the place to enter the debate about how directed self access learning should be; it is clear, however, that without the setting of learning paths, or at least the clarification of learning objectives, there is significant potential for students to waste their time, and perhaps become demotivated.

Practical examples

So much for the theory; let's look at a couple of real-life examples. Firstly, the controlled use of ICT for independent learning with tutorial software. There is a distaste among many teachers in all areas of education for giving out, collecting and marking worksheets. It is recognised, nevertheless, that many areas of language require repetitive practice: learning irregular simple past forms is one; practising intonation is another; regular extensive reading is a third.

Teachers at Rosaryhill secondary school in Hong Kong experimented with placing responsibility for this in the hands of the students. They plotted online reading and grammar resources against the curriculum and spent some time training students in

how to use them. Various resources were available, and students could choose which activities they did according to their own priorities, but there were various rules: they had to spend a minimum of an hour a week; they had to get a minimum score in an activity for it to count; they had to spend time on different language areas. Teachers were able to check at a glance what students were doing using the Results Manager monitoring software. It is in the nature of this kind of experiment that results are difficult to quantify, but it is clear that both teachers and students enjoy the freedom even of this highly controlled independent learning.

Meanwhile in an ESP-orientated institute in Abu Dhabi, an experiment was taking place with the use of discussion boards with a class of adult learners in the second and final semester of a foundation program. The objective was to find a way to encourage reflection in a realistic way, following the failure of the 'reflective journals' in their portfolio tasks. To do this, the teacher created a class site on a password protected discussion board. The first stage involved practice in using it during the CALL periods for two weeks. After that, the teacher provided a topic and/or reading task within the students' CALL lab period – after the first couple of weeks, this was a reading related to their suggestions. The students read the document and made comments, and answered a question or completed some other task. They then had to respond on two other students' remarks and reply to any responses to their own work. This had to be completed before the CALL lesson the following week. The 'official' outcomes were their contributions to the discussion, but the reality was the effort that went into the tasks and the pride in being able to show family and friends their work at weekends.

Conclusion

I believe that it is no exaggeration to say that online learning represents the most significant revolution in education since the invention of the printing press. The Internet is breaking down the walls of the classroom and is simultaneously transferring the balance of power in the classroom from the all-knowing teacher towards the enquiring, independent learner. As this paper illustrates, we are now at the stage where we are just scratching the surface of the possible. The fascinating question is where we will be in five, ten and twenty years' time.

Oh, and if you want fire custard at each other without making an unacceptable mess of the school gym and risking the Chairman of the Governors getting caught in the cross-fire, after much fruitful discussion in your virtual learning environment, you decide to fire silly string instead.

Clarity has a mission to help teachers integrate ICT successfully into their teaching. Please contact us at any time for advice on which programs to use and how to use them effectively with your students.

