E01 Sub 7

Clarke, Pamela

Subject: FW: Inquiry Submission

-----Original Message-----
From: stephen@melbpc.org.au [mailto:stephen@melbpc.org.au]
Sent: Tuesday, 13 December 2011 1:24 PM
To: Gordon, Brian
Cc: Committee, Education & Health Standing
Subject: Inquiry Submission

Dear Hon MLAs, and, Dr Brian Gordon, Principal Research Officer, WA.

Reference is made to, <http://apo.org.au/call/have-your-say-improving-educational-outcomes-western-australians-all-ages> where-in you seek submissions regarding .. "Improving Educational Outcomes for Western Australians of All Ages."

I'd like to make a brief submission regarding your 'terms of reference' numbers 1, 3 and 4. (Being 1. Current and future resourcing of new methods and activities to improve educational outcomes such as e-learning and school partnerships; 3. Facilitating greater opportunities to engage all students in year 11 and 12; and 4. Improving access and opportunities for adult learning in regional and remote WA). I am a retired Victorian school teacher, and simply feel you should be aware of new developments, if you might not otherwise be, to assist in your important deliberations.

It might be best if I simply draw your attention to two recent news items regarding points 1, 3 and 4 above, and respectfully suggest you draw your own conclusions ..

First:

"Online studies receive pass mark" By Kim Arlington, December 12, 2011

OF THE 72,000 students to receive their HSC results this week, some will not only access their marks online but have studied their subjects over the internet as well.

At Northern Beaches Christian School, which is expanding its successful online learning program, those studying in cyberspace often outperform their peers who are learning in a more traditional environment.

The principal, Stephen Harris, said that in three-quarters of subjects where lessons were offered face to face and online, the average class mark was higher online. Results are similar in the US, where 60 per cent of secondary school courses are expected to be delivered online by 2020.

''Our highest individual HSC result has come through an online course and we've consistently had a lot of band 6 results [scores between 90 and 100] come through,'' he said.

''We've been completely amazed by the outcomes.''

The school, in Terrey Hills, has offered courses online for five years and now provides 40 such courses.

Students can take HSC subjects online, in the usual class setting, or combine the two.

Online courses are also open to students from other schools, who, because of teacher shortages or a timetable clash, may otherwise be unable to study a particular subject.

Learning is not confined to normal school hours and students can set their own pace, making it effective for those with chronic illness or high-level sporting commitments.

Teachers monitor and communicate with students online and run face-to- face workshops each term.

Sixty schools in NSW, as well as some overseas, have used the program.

This year, 340 students took online HSC courses with the school.

Mr Harris said the strong results could reflect the fact that motivated students wanted to learn online, "but it's also telling me that kids like the structure, where they can see the entire course for the whole year''.

Online learners were not "lost in cyberspace'', he said.

''You've actually got a far better engagement level with the students.''

Nicholas Achterstraat, a year 11 student at the school, did accelerated business studies for the HSC online this year and will take three more subjects online for next year's HSC.

Exchanging views with fellow students in forums meant "you still feel that community atmosphere because there's so much interaction", he said.

Ref: http://www.smh.com.au/technology/technology-news/online-studies-receive-pass-mark-20111211-1oprr.html#ixzz1gI9ArRHi
--

Second:

"Technology as a Passport to Personalized Education"

By DAPHNE KOLLER, Published: December 5, 2011 (snip)

. Our approach to education has remained largely unchanged since the Renaissance: From middle school through college, most teaching is done by an instructor lecturing to a room full of students, only some of them paying attention.

In 1984, Benjamin Bloom showed that individual tutoring had a huge advantage over standard lecture environments: The average tutored student performed better than 98 percent of the students in the standard class.

Until now, it has been hard to see how to make individualized education affordable.

But I argue that technology may provide a path to this goal.

Consider the success of the Khan Academy, which began when Salman Khan tried to teach math remotely to his young cousins. He recorded short videos with explanations and placed them on the Web, augmenting them with automatically graded exercises.

This simple approach was so compelling that by now, more than 700 million videos have been watched by millions of viewers.

At Stanford, we recently placed three computer science courses online, using a similar format. Remarkably, in the first four weeks, 300,000 students registered for these courses, with millions of video views and hundreds of thousands of submitted assignments.

What can we learn from these successes?

First, we see that video content is engaging to students — many of whom grew up on YouTube — and easy for instructors to produce.

Second, presenting content in short, bite-size chunks, rather than monolithic hourlong lectures, is better suited to students' attention spans, and provides the flexibility to tailor instruction to individual students. Those with less preparation can dwell longer on background material without feeling uncomfortable about how they might be perceived by classmates or the instructor.

Conversely, students with an aptitude for the topic can move ahead rapidly, avoiding boredom and disengagement. In short, everyone has access to a personalized experience that resembles individual tutoring.

Watching passively is not enough. Engagement through exercises and assessments is a critical component of learning. These exercises are designed not just to evaluate the student's learning, but also, more important, to enhance understanding by prompting recall and placing ideas in context.

Moreover, testing allows students to move ahead when they master a concept, rather than when they have spent a stipulated amount of time staring at the teacher who is explaining it.

For many types of questions, we now have methods to automatically assess students' work, allowing them to practice while receiving instant feedback about their performance. With some effort in technology development, our ability to check answers for many types of questions will get closer and closer to that of human graders.

Of course, these student-computer interactions can leave many gaps.
Students need to be able to ask questions and discuss the material. How do we scale the human interaction to tens of thousands of students?

Our Stanford courses provide a forum in which students can vote on questions and answers, allowing the most important questions to be answered quickly — often by another student. In the future, we can adapt Web technology to support even more interactive formats, like real-time group discussions, affordably and at large scale.

More broadly, the online format gives us the ability to identify what works. Until now, many education studies have been based on populations of a few dozen students. Online technology can capture every click: what students watched more than once, where they paused, what mistakes they made. This mass of data is an invaluable resource for understanding the learning process and figuring out which strategies really serve students best.

Some argue that online education can't teach creative problem-solving and critical-thinking skills. But to practice problem-solving, a student must first master certain concepts. By providing a cost-effective solution for this first step, we can focus precious classroom time on more interactive problem-solving activities that achieve deeper understanding — and foster creativity.

In this format, which we call the flipped classroom, teachers have time to interact with students, motivate them and challenge them. Though attendance in my Stanford class is optional, it is considerably higher than in many standard lecture-based classes.

And after the Los Altos school district in Northern California adopted this blended approach, using the Khan Academy, seventh graders in a remedial math class sharply improved their performance, with 41 percent reaching advanced or proficient levels, up from 23 percent.

A 2010 analysis from the Department of Education, based on 45 studies, showed that online learning is as effective as face-to-face learning, and that blended learning is considerably more effective than either.

www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf

Online education, then, can serve two goals.

For students lucky enough to have access to great teachers, blended learning can mean even better outcomes at the same or lower cost. And for the millions here and abroad who lack access to in-person education, (eg, Yr 11-12 subjects not offered) online learning can open doors that would otherwise remain closed.

Nelson Mandela said, "Education is the most powerful weapon which you can use to change the world."

By using technology in the service of education, we can change the world in our lifetime

http://www.nytimes.com/2011/12/06/science/daphne-koller-technology-as-a-passport-to-personalized-education.html?src=me&ref=science
--

Respectfully,

Stephen Loosley
Member, Victorian
Institute of Teaching