

Measuring success: is your technology investment worth the money?

Doug Loader

All department budgets are, quite rightly, assessed for their value for money. But when one budget consistently dwarfs others, it is time to closely examine if the ICT expenditure is seeing a return on investment. Measuring success in this instance is difficult, what are the indicators? How can success be defined? Are the positive outcomes even tangible?

Traditionally a school may be assessed by its academic achievements, and this is particularly important in the 'essential' subjects as assessed by NAPLAN. But with such a variety of students from different backgrounds, every educator knows that it is not realistic to measure all by the same yardstick.

I have worked at two schools over the last five years and in terms of student achievement, I have found that each year group is as different as the next. Some excel in literacy, where as others are gifted in the arts.

One thing I can say for sure is that the use of technology over the last five years has not seen a significant improvement in NAPLAN or ATAR scores – at least not an improvement that could be fairly accredited solely to a 1:1 computing environment. So why then should principals support the budgets demanded by the ICT Department?

I believe it is because of the future that our students face, and in particular a growing sector of society now being referred to as the Creative Class.

The rise of the Creative Class

The creative industry in our local and global economy has been steadily increasing since the 1980s. Up until this time the Australian economy was largely driven by agriculture and more recently the industrial revolution.

Each month we are reminded of the changing workforce in Australia. The impending end of GM Holden as a carmaker in Australia is evidence of an entire fleet of employment being transitioned to a cheaper Asian work force. Many of our white-collar jobs are also being put at risk. With websites such as ODesk, thousands of freelance workers based in India, Asia and China can market themselves to complete any number of design,



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administrative or information based jobs.

The modernisation of our workforce was summed up beautifully by Ian Jukes this year at the EduTech Conference in Brisbane: "Service Class jobs are replaced by technology, Creative Class jobs are facilitated by technology."

A report published in 2013 by CCL.edu.au

states, "Creative professionals now outnumber mining sector employees three-to-one, and those of agriculture fishing and forestry two-to-one."

All of these changes are indicators that the future faced by our students is a very different place to the workforce that you and I were prepared for. A creative class citizen would expect to work in a design environment, or the multimedia sector. They would be found in architect offices facing environmental issues. They would also be found in graphic design and marketing studios. Creative rolls also encompass politics, coding and most importantly teaching.

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solving climate change issues, population management, and travel challenges. With the aid of technology, they will communicate so intuitively between each other that different dialects will not be a barrier. Creative industries will cater for the digital demands of the 21st century, including entertainment, gaming and even relationships.

Apps for everything

The Apple app development business alone was worth over 10 billion dollars in 2013. The thought of App design as a career choice just five years ago was unimaginable. Just consider what other career choices will emerge in the coming years.

Creative roles require diversity. All young people have the best opportunity then ever before to flourish in a marketplace that requires critical and challenging minds, these are minds that can traverse digital devices and discover new information in a moment.

As educators it is important that we recognise student abilities to think 'out of the box'; we must not smother these artistic, unusual or mischievous minds. To impose our own social categories, such as gender, race or sexual orientation, or to grade students by the same competency tests, which we ourselves sat, is simply wrong.

This enormous emerging sector is critical, and it does not require traditional intelligence from an education system that has largely been unchanged in decades. Australia's future

workforce will need to compete with some of the most forward thinking entrepreneurs across the globe; it will only be through innovation that we can get an edge.

Technology underpins almost every aspect of the creative industry and modern schools have a duty to integrate technology so seamlessly into the curriculum that to distinguish between the two is impossible. This does not mean an over-dependence on personal devices, rather a seamless flow of modern tools. Modern learning goes way beyond laptops and iPads. Technologies present in everyday items like dishwashers, thermostats, cars and even nature are indicative of our need to educate students to innovate, to acquire solutions to problems which don't yet exist.

Does it work?

A measure for your return on investment should simply be, *does it work?* In September 2013, the Australian Human Rights Commission produced a paper that highlighted the importance of the access to the internet for all. Has your ICT Department succeeded in delivering this very basic 'human-right'? I think that you should have high expectations in this field. If your colleagues report that internet access is slow or frustrating, then your organisation is not delivering value for money.

Other indicators for success lie in the attitudes of staff and students. Are staff welcoming of change and prepared to put in

the necessary hours to adapt their pedagogy? Are students excited and engaged with the possibilities available to them?

Student attendance figures and even staff retention should also be considered. Although I can't comment on the staff retention at my school, I am very proud of the number of ex-staff who contact us after they have moved on to ask for advice on how things should be set up. I see this as a very positive indicator.

The ROI of your ICT budget cannot be measured by conventional methods. If the infrastructure is working then you are on your way to success. The rest lies in the hands of your teaching staff. Continue to create a fertile environment where students are inspired and new ideas can flow. Technology is such a powerful catalyst for this that to undervalue its importance will be detrimental to the future of your students.

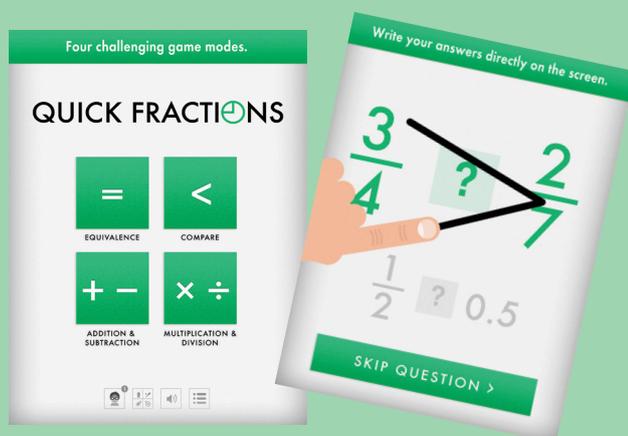
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Shiny Things adds Quick Fractions App



The latest report from the Australian Government's Productivity Commission reveals that almost a quarter of Australians are able to perform only basic mathematical skills like counting.

Sydney-based Shiny Things is using innovative technology to reinvent how these basic skills are introduced to children and to help teachers encourage interest early on in the area that FaceBook founder Mark Zuckerberg described as "essential for driving human progress and innovation in this century."

Shiny Things' suite of maths apps has recently reached over 1.3 million downloads globally, with apps like Quick Maths and Quick Maths + proving hugely popular with teachers, parents and children.

The latest addition is Quick Fractions, which brings a fresh approach to help master one of the most troublesome areas and sharpen those skills in an educational, yet fun way.

Quick Fractions also incorporates an advanced handwriting engine, allowing users to write their answers directly on to the screen, reinforcing the same muscle memory children use with pen and paper.

www.getshinythings.com