Technology is NOT a substitute for teaching (Part 2)

Effectiveness

In part 1 last week, I described an activity utilising technology to present student research. Producing the movie took much longer than doing the research. Whilst the additional learning is beneficial, the problem here is two-fold. First, the actual subject-relevant learning portion of the assignment (research and writing) took up a tiny fraction of her time. The additional learning (how to use the video-making software) may be valuable as a future workplace skill but, the actual process of making the movie was really 'busy work'. Once you've edited images to match one 5-second audio segment, you don't learn anything more by editing the remaining 59 segments! It was an utterly ineffective use of potentially valuable study time.

Technology is nothing. What's important is that you have a faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them.

Steve Jobs

Second, the point of the assignment was to create learning tools for her fellow students to support them in understanding and memorising content. Let's face it a video is not a great device for that type of activity. Students would have been so much better off if the information was presented to them as a mind-map, chunked into memory pegs or provided in a mnemonic device – which would have also taken far less time to prepare. As a case in point, my step- daughter has created her own set of memory pegs to revise for the test – because as she says, "I can't remember facts from a video."

This example – which is being replicated across the curriculum – demonstrates the danger of adding technology to an activity without thinking through the learning outcomes.

It's vital that educators consider the **three guiding principles of integrating technology and teaching** when creating assignments and planning lessons:

1. Technology isn't teaching. Without a great teacher guiding the learning appropriately, and engaged students, technology is just as useless as a worksheet.

2. Technology is just one tool of many. Educators need to make sure assessment tasks are fit for purpose. Technology may not be the appropriate response medium. Even if technology is appropriate, students should be given other options. Some students still learn best by writing essays. Not everyone is a digital content producer – and not everyone needs to be. The vast majority of future professions will not require people with the ability to make a video.

3. Technology-based assignments require technology skills. If we expect students to make digital content to demonstrate their understanding, then we must first teach them the content-making skills.

The danger is that we mistake technology as a panacea for student engagement and good teaching. Yes, students are surgically attached to their devices. Yes, they'd rather engage with a Smartphone than a worksheet. Yes, some of them would rather produce a video than write an essay. But we cannot just throw a device into a lesson, or add digital content production to an assignment and assume that this will magically improve educational outcomes. It all goes back to the fundamental question – where is the learning value?

Used properly, technology can help both teachers and students learn more and achieve more. However, it can also be monumental waste of teaching and learning time, drawing the teacher's attention away from where the real focus of the learning should be. Ultimately, the key is in finding ways to successfully merge sound learning principles with the right type of technology – when appropriate. **Technology is not a substitute for teaching.** We do our students and educators a disservice by pretending that it is.

Key points

Three guiding principles of integrating technology and teaching:-

Technology isn't teaching – without a great teacher guiding the learning, technology can be as useless as a worksheet

Technology is just one tool of many – educators need to ensure assessment tasks are fit for purpose

Technology-based assignments require technology skills – if we expect students to make digital content then we must first teach them the skills necessary

Dr Rich Allen

Dr Rick Allen is a master trainer, with a Ph.D. in Educational Psychology. His cognitive learning theory research, which provided understanding on how the brain receives, processes, stores, and recalls information, forms the basis for his radical approach to teaching, presenting and facilitating.