

Paper Based External Exams: Past their Use By Date?

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It is probably not too harsh to suggest that the continued use of paper based external exams in 2014 is educationally irresponsible. The action not simply perpetuates the use of an increasingly dated, low-level student assessment methodology but also significantly impedes the growth and evolution of secondary schooling.

The current exams are grounded in the use of a highly limited technology, paper, that has long passed its 'use by date' as the desired platform for 21st century, 24/7/365 teaching, learning and assessment.

In a world where the young, their parents and society in general have long since normalised the use of the digital in every facet of their lives, and where the students will move into a workforce or a tertiary education where hand written reports and assignments will never be accepted far too many education authorities are persisting with the use of the paper technology and an Industrial Age student assessment methodology and mindset.

In a rapidly changing, evermore sophisticated digital and networked world, where schools are evolving at pace and tightly integrated school ecologies will likely impact increasingly on student learning (Lee, 2014) the continued reliance on the paper technology by governments, certifying authorities and exam boards is not only placing an unnecessary major impediment in the way of the evolution of secondary schooling, but also is preventing astute educators take advantage of the already immense but also rapidly growing potential of the digital technology to provide an appreciably better, evermore sophisticated, apposite, personalised, effective and efficient mode of student assessment.

As a member of the team in the Australian Capital Territory (ACT) that 40 years did away with external exams at Year 12 and who has witnessed countless of generations of ACT students successfully move on to all fields of study and endeavour across the world without having to endure the stress and lottery of external paper based exams I'll hold back comment on the educational desirability of external exams, and focus instead on the now major shortcomings of the underpinning paper technology.

Paper Technology

Paper is a lower order limited technology, unchanging in form that educationally and organisationally obliges the use of certain practises, limits the type of student assessment that can be used and is, as is increasingly evident wasteful of scarce teaching time, costly to use and highly inefficient.

Its constancy and its inherent reinforcement of the status quo has seen it continue to be core to the perpetuation of the educational practices and thinking of the 19th century and the Industrial Age, the retention of a particular form of strongly academic oriented exams and their administration at the end of the K-12 assembly line, sorting and sifting the managerial personnel from the line workers. The two or three hour written, essay based examination which was employed in Queen Victoria's schools is still the mainstay of most external exams today, with many advocates contending

they are the best way to maintain educational standards. The unwelcome reality is the continued use of paper is in relative terms daily lowering the educational standards and stymying their enhancement.

The reliance on paper and handwriting obliges students to be trained in the mechanics of writing a three hour paper under test conditions. Try and replicate the mechanical prowess one had as a 17-18 year old and you'll soon appreciate it is a learned low level skill, that does need to be worked upon in school time – at the expense of other higher order teaching – to succeed in the exams. The fact that that the skill of handwriting a lengthy test will never again be required in the student's life has been conveniently forgotten.

The inherent inadequacies associated with the paper base largely oblige the perpetuation of a mass, relatively unsophisticated, assembly line mode of testing, the bringing of all the applicants together in the one physical and stressful place and all students sitting the tests at the same time regardless of whether they understood the matter many months or years beforehand

The paper base, coupled with the external nature of the exam strongly impels the adoption of a teacher directed pedagogy (Schome, 2014) (NCREL, 2014) the waste of scarce teaching time, the early termination of teaching in Year 12, costly external exam invigilators and the slow and inefficient processing of the students' work.

In brief external paper based exams, while ostensibly intended to merely inform and attest to the school's teaching, strongly shape the nature of the secondary schooling and the teaching provided. The tail is wagging the dog. The exams strongly promote the retention of an increasingly dated, lower order and increasingly irrelevant mode of schooling, teaching and student assessment while at the same time stultifying the evolution of secondary schools.

Digital Technology

In marked contrast the shift to a digital operational base positions the secondary schools (Lee and Broadie, 2014) (Lee, 2014) (Lee, in press) for on going evolution and the movement to an increasingly higher order mode of 24/7/365 schooling. The digital operational base enables the schools to employ and integrate into their everyday operations an evermore educationally sophisticated, personalised, effective, efficient and less costly mode of student assessment that is closely aligned with the school's shaping educational vision. The student assessment becomes an integral and natural part of the school's ever evolving, evermore tightly integrated school ecology, accommodating if so desired the teaching and learning occurring within and outside the school walls.

Where the paper technology promotes constancy and continuity the increasingly sophisticated digital technology, particularly when coupled with ever rising user expectations and an enhanced understanding of what is possible with the new technology promotes on-going evolution and growth, school transformation, organisational integration and the adoption of increasingly sophisticated, higher order teaching and learning practises.

This holds equally with the digitally based student assessment. Using Moore's Law as a guide one is talking in 10 to 12 years of computers with processing power of the human mind (Helbing, 2014), able in the hands of astute educators to provide highly sophisticated, increasingly individualised student assessment, efficiently, inexpensively undertaken anytime, anywhere in the networked world. While still early days the learning analytics evidenced with MOOCs and other online teaching provide an insight into the possibilities opened by the increasingly powerful computer systems.

That said it is appreciated the provision of apposite digitally based student assessment tools is still in its infancy with the designers not surprisingly in the main unwittingly approaching the task from a paper based operational mindset. Exemplified is the old Naisbitt (1984) adage that the new technology will be used initially to replicate the established ways. Little is the wonder that schools that have normalised the use of the digital and are working within a networked mindset have had trouble finding apt digital assessment tools (Lee, in press).

The digital operational base does oblige every student to have in their hands the apposite current digital technology, but the irony is that that situation now exists with virtually every Year 12 student in the developed world having that technology albeit outside the school walls. Nearly all have their own kit and vitally will from hereon have the requisite technology. Disturbingly while the young have normalised the 24/7/365 use of that technology they have done so everywhere but in the classroom.

The problem is the schools, not the students. The vast majority of the secondary schools in the developed world lag well behind the student's with precious few upper secondary schools in 2014 having normalised the whole school use of student's own choice of digital technology. All the indicators point to most upper secondary teaching still being predominantly paper based, with a minority of the teachers using the digital in their everyday teaching.

While the scene is evolving at pace the signs are that the majority of upper secondary schools in the UK, US and Australia still ban the use of the student's digital, often going to inordinate lengths to prevent the young adults using their own smartphones, iPads and laptops in class.

Conclusion

The tail continues to wag the dog in much upper secondary schooling, with the paper based external exams strongly impacting the nature of the teaching and the student assessment employed. While as indicated in the last column this is by no means the only impediment to digital normalisation in the high school but those governments and education authorities that persist with paper based exams are irresponsibly perpetuating a practise now well past its use by date and making it unnecessarily hard for them to grow, to evolve at the same kind of rate as their primary school counterparts and to provide an education for the digital and networked world.

Ideally that major impediment needs to be removed and to be removed swiftly, but in researching and writing this article one it was apparent these

are still early days with the literature only beginning to appear and the impediments addressed (NCREL, 2014) (Schoe, 2014)

While, as was shown 40 years ago, if governments so decide it is possible to move swiftly to phase in an apposite alternative mode of student assessment but it has to be the government and not the schools that needs to make the call to adopt a mode of upper secondary assessment appropriate for a digital world. All the educators can do is to voice the need for the change.

The hope is that this article will help prompt those voices and that others across the world will express their concerns about the current educational impediment.

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