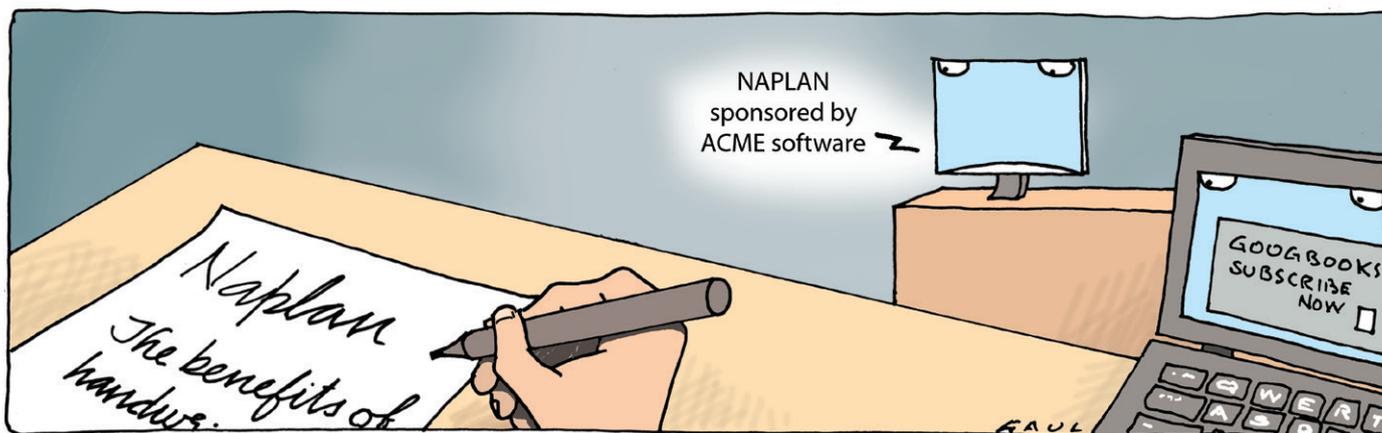## PRESIDENT WRITES

HASTEN SLOWLY AND STAY IN CHARGE

MAURIE MULHERON

Many years ago, as a young teacher in the late 1970s, I read an article about Japan and mathematics teaching in relation to what was then new technology — the overhead projector. It may have been apocryphal, but I still found the story to be thought provoking. The article told of a local school district in Japan that had decided to replace, with unforeseen consequences, all the blackboards with overhead projectors complete with scrolling plastic film on which teachers were to write.

As the story goes, after some time, there was a noticeable decline in students' results in mathematics across all schools. A team of experts was brought in. After observing mathematics classes over a sustained period, the experts reached their conclusion. The new technology, the overhead projector, was the cause of the decline.

Apparently, the scrolling film meant that students, who had lost concentration or had been slower to pick up a concept, quickly became lost because the teacher kept scrolling through while explaining the solution to the mathematics problem. Yet, with the old blackboard the complete narrative to the solution remained visible so that students could look back and catch up.

When the blackboards were screwed back up onto the walls, the maths results started to go up again.

So, I always am cautious when deciding how we should use new technology in our classrooms. The test for me is this: We should always determine, firstly, the pedagogy when we program our lessons then we see what, if any, technology could enhance and support the teaching and learning process.

Now, let me say this. I first started using a computer in my English classrooms back in the early 1980s with a product known as MicroBee, well before Apple and Microsoft products were readily available. Programs were stored on cassette tapes as I recall. I have used digital technology throughout my teaching career.

But huge technology companies are now eyeing off schooling as the last untapped marketplace. We need to be wary. What I am concerned about is that teachers are in danger of losing control of the how we teach as "edu-businesses" move to directly influence politicians, advisers and policy makers.

The issue of students writing with keyboards as opposed to cursive script might be a useful case in point. This seems to be a manufactured conflict. Surely, it's not a case of privileging one tool over the other but to ensure that students know how to use a keyboard as well as a pen. I mean, after all, cycling hasn't replaced walking.

But let's also look at the educational arguments for the use of pens and the teaching of cursive script.

There is a wealth of research into this area and a range of conflicting opinions. It certainly is not a settled matter. All the more reason why we need to hasten slowly. My position is that the skill of being able to hand write is essential, and even more critical in the early years of schooling when students are developing their fine and gross motor skills.

One interesting argument for handwriting is its relationship to spelling. There is a school of thought that believes the use of cursive script creates more consistent spelling.

> **Huge technology companies are eyeing off schooling as the last untapped marketplace**

It has to do with kinaesthetic learning. The argument goes that the muscle memory is important when we spell. As written English has so many letter clusters, a student's arm and hand movements, when learning to running write at the same time as learning to spell, makes for a more consistent speller.

A quick test of this theory is to deliberately misspell your first name by printing each letter. It is relatively easy to reverse, say, the middle letters. Now try to

misspell your name when you running write and you may "feel" your arm pull against you.

But there are other arguments as well. We know that there is much more research into the teaching of reading than there is into the teaching of writing.

A student's writing that is done on a keyboard, even if tracked, will not show up the mistakes, the corrections or the changes to thought processes that have occurred. But handwriting often shows a visible record of the creative process. For a teacher assessing a child's development in writing, this can be invaluable.

In a recent article published in *The Age*, "This skill is being written off at our children's peril",

Anabela Malpique, a research associate in the School of Education at Murdoch University, argues: " … in the last 10 years, a solid body of research has shown that effective writing depends on the development of lower-order skills, such as handwriting and spelling, and of higher-order skills, such as planning and revising."

She goes on to say: "And there is a strong relationship between automaticity (often called fluency) and written composition. The ability to write quickly and effortlessly allows children to focus on translating ideas into writing, thinking about what they want to say about the topic at hand. Poor handwriting may

conceal the writing potential of primary school children. And teaching handwriting improves automaticity and the writing quality of texts produced by students in primary and secondary schools."

In recent years, there has been a decline in the time spent teaching children to hand write. But students using keyboards to write has increased dramatically. Yet, since 2011, secondary student scores in writing have declined. Is there any correlation? We simply do not know.

But surely, before we move to NAPLAN Online, which demands that all students are required to do the written component of the test using a keyboard, we should

investigate this whole area.

NAPLAN already dominates, in so many negative ways, what is happening in our classrooms and we can all imagine the consequences for the teaching of writing once the test is moved online.

As teachers, we have a duty of care to our students and surely this also involves protecting them from powerful technology companies whose first and last motivation is to sell their software and hardware products.

The story of the Japanese blackboards might be worth revisiting.