# Tackling productivity in teaching and learning

## Jim Wynn

In every field of human endeavour it seems there has been the desire to improve productivity – and, in this century, a desire to improve the quality of everything at the same time. That is in all fields apart from one: education. Whatever your belief system tells you about the purpose of education, there really is nothing wrong with seeing how parts of that system can be improved and, in this century, how to involve technology in some shape or form. Professor Stephen Heppell said some years ago that teachers should 'be very afraid', arguing that young learners will challenge those teachers that don't use technology in their teaching.

So what is your vision, how will you create a strategy for success and how will you execute successful change? This article presents some thoughts on these matters.

## Vision

We live in times that access to education means far more than having a school place. It means having an appropriately trained teacher (both inside and outside school) to support learning. It means having access to courses and learning that suits each student as an individual. And it means having access to learning whenever it is required, in a way that meets students' needs.

Resources are scarce, so to provide better access to the education students need, we have to find ways to make education more productive than ever before. This is particularly challenging in a world that faces a massive shortage of teachers – India is short of 1.2 million teachers, Africa is short of a million and Europe has shortages across all the STEM subjects (science, technology, engineering, and mathematics).

## Challenges to productive education

The age profile of teachers is increasing, indicating that less young teachers are joining the profession. In Austria, Japan and Korea the proportion of teachers below 40 years of age shrank by 14 per cent between 1998 and 2010 (OECD, 2012). In some countries, the impact of economic measures across the public sector is deflating and demotivating. The worldwide recession is having an impact on the appetite and ability of many politicians and educationalists to innovate as they seek ways to reduce existing costs, rather than investing for the future. Meanwhile, the cost per student of higher education is soaring in many countries. Any credible vision for education must have increased productivity at its heart.

Of course, many of these challenges have existed for a very long time. The supply of teachers in Africa has been an issue for decades and in many countries there have never been a sufficient number of teachers trained in STEM subjects to meet national needs. So how do we realise our vision? A vision that appears to

need more resources, not less. Is the vision unrealistic and no more than a pipe dream? Or is it that approaches to resolving educational performance have either been far too tactical or far too ambitious? In truth, change is too often driven by short-term political imperatives, rather than by a coherent long-term vision and this helps explain lack of progress in delivering increased productivity.

Surely it is time we agreed on the key themes that should be at the heart of every educational strategy? If we can agree on these themes, then we can learn from each other and analyse the way we work to make it easier to share approaches, compare our strengths and successes and drive improvements in the quality of what we deliver. All this, in turn, will help us identify the key issues that, tackled in the right order, will help deliver change throughout the educational system.

## Planning for success

*'In preparing for battle, I have always found that plans are useless but planning is indispensable.'*

– Dwight D. Eisenhower

At the heart of any strategy must be the needs of our economies and societies. The strategy must also be sufficiently flexible to meet the specific requirements of individuals while also encouraging collaboration. We must start to run the whole of education as we run businesses in the 21st century.

Behind these themes lies the concept of improving productivity across the whole of the education sector. This includes helping teachers be more effective, understanding how to develop the curriculum and integrating formative assessment so that decisions about students can be driven by meaningful and up-to-date data.

Alongside this, we need to improve our allocation and use of resources by magnifying those resources that are in short supply

### Lack of skills

*'In developing countries, 200 million people aged 15 to 24 have not even completed primary school and need alternative pathways to acquire basic skills for employment and prosperity. The world's youth population is larger than ever before; one in eight young people are unemployed and over a quarter are trapped in jobs that keep them on or below the poverty line. As the effects of the economic crisis continue to squeeze societies worldwide, the severe lack of youth skills is more damaging than ever.'*

– UNESCO, 2012

(such as lead teachers), building improvement in the supply of resources that need to grow (such as mentors), and building efficient use of learning resources and access to them through technology. We need to do all this in ways that make the most of the skills and knowledge of students and teachers. We should reduce dependence on expensive traditional resources and provide the means to develop new skills critical to success in today's world of work – for example, enterprise and collaboration.

Why have so many attempts at changing education been successful at the pilot stage but failed to go full scale? Why are there pockets of success in every country that are not replicated in enough classrooms? Why do we continue to hear talk of student-centred learning and the school disappearing while 60 million teachers still teach in classrooms every day? How can change be delivered across entire educational systems? There may be a clue in the approaches employed to the execution of strategic plans within education systems.

The success of a pilot, with its extra funding, demonstrates that a given outcome can be achieved but does not show how to take the learning to scale. The word pilot hides a problem, namely that the pilot is the aim. By definition, it doesn't show what needs to be done to achieve full-scale replication, it just demonstrates that the idea was valid. Rather than thinking of pilots we should focus instead on the idea of prototypes that are designed to show the shape of things to come. This has to be more than a demonstration of the educational outcome, it has to prove the value of the business model, the technology model, the operating model and, of course, the all-important execution model or system.

A framework for transformation needs to be built in three stages, the first of which builds a prototype that can suggest a blueprint for scale. This orientation phase identifies the value proposition and that which is really going to be delivered. Following this, it needs to be demonstrated that the prototype can be replicated in a new

situation. That involves exploring the ability to go full scale. This phase of exploration is usually missing and is often the reason for scale not being achieved. Consolidation of the changes cannot be achieved across a system unless questions of sustainability are tackled. These three phases – orientation, exploration and consolidation – are required for the execution of any strategy. They enable the replication of ideas, the scaling across the system and sustainability into the future.

We need to build demand, rather than simply focus on supply. We need to build teams of teachers and students who help and encourage each other. Just like learning, these changes are difficult to achieve when imposed on people – the chances of success will be much higher when change is something that is done in partnership with them. Because, in the end of course, it is people – not technology or systems – who are the key to delivering increased productivity and success, to the benefit to learners everywhere.

## References

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