

Getting Ahead

Blending tech savvy into the mix

Involving teachers in course development is a way to embed technology-based learning in curricula

COMMENT

Sonja Strydom & Anneke Müller

Worldwide trends suggest that technology-enhanced learning is becoming increasingly important in the educational sector. The media regularly reports on new educational tools such as tablets and e-books that could assist in learning.

Not only are pupils of all ages expected to embrace these new learning tools, but teachers and lecturers are also encouraged to integrate technology-enhanced pedagogies into classrooms and lecture halls. These trends create particular opportunities and pose challenges within the South African context.

For one, there is the question of how prepared pupils and their teachers are to embrace such learning tools and opportunities. For instance, it can rightly be asked whether "technology-savvy" pupils are skilled in using technologies for learning. The fact that pupils access their devices on a regular basis does not necessarily suggest an engagement of an academic nature.

Also, the majority of pupils in South Africa do not have access to the internet, let alone smart devices to make use of online resources and to collaborate virtually. This reality adds to the knowledge divide between schools.

These challenges, however, are not insurmountable.

First of all, teachers and pupils require adequate digital literacy levels. Digital literacy does not refer merely to the user's ability to use software or particular digital devices appropriately for learning, it also requires higher-level cognitive, sociological, psychological, emotional and, in the case of teachers, pedagogical skills in order to use digital environments effectively.

The challenge for university faculties of education therefore remains to prepare future and practising teachers to develop appropriate online content, to ensure that students develop the necessary technological knowledge and skills and that pedagogy drives new teaching initiatives.

Simply combining different and most up-to-date tools such as

(smart) cellphones, tablets, e-books, interactive whiteboards or computers with face-to-face sessions is not a quick solution.

We prefer a "blended" mode of delivery — one that allows teachers to understand the process of integrating learning technologies into the curriculum. Blended learning calls for: pedagogy to remain the driving force; the effective integration of learning styles and models of teaching; and a carefully thought-through strategic and systematic approach to curriculum development.

Such an approach has the potential to address particular school-based challenges, contribute to efficient curriculum management, enhance pupil skills and enrich the learning experience.

Despite such anticipated opportunities, we must promote awareness of potential challenges, such as the sustainable implementation of learning technologies in the curriculum. It is clear that, within curriculum redesign, appropriate time and resources should be allocated to develop such curricula. It is therefore expected to be costly, especially in terms of the initial time of teachers. But we also anticipate that integrating technology will eventually lessen teachers' workload.

At Stellenbosch University, the faculty of education decided to explore a blended mode of delivery through project-based and other smaller-scale initiatives to equip pre-service, in-service teachers and lecturers at the faculty with the relevant digital literacy skills in the classroom.

Projects include, for example, the curriculum redesign of the bachelor of education honours course so that lecturers attend a modular staff development programme that prepares them to integrate blended approaches into their respective curricula.

A pilot group of postgraduate certificate in education students is using tablets as tools during practicals in schools to create developmental and reflective e-portfolios that could potentially contribute to the students' continuous professional development.

Final-year education students can enrol in a short course to develop their levels of digital literacy before entering the job market.

Further blended-learning projects are planned with the hope that they will provide opportunities for pre-service and in-service teachers to engage with a blended mode of delivery at different stages of their courses.

In terms of enhancing the technology skills of in-service teachers, the Centre for Pedagogy in the same faculty incorporates technology-enhanced learning in its offering of the formal professional qualifications or in their content-specific short courses. These courses include mathematics, natural, physical and



All in one: Digital literacy does not refer merely to the user's ability to use software or devices appropriately for learning; it also requires cognitive, sociological and psychological skills. Photo: Madelene Cronjé

life sciences as well as leadership and management.

This blended model is a combination of contact sessions in Stellenbosch and distance education through the university's telematics platform.

Tuition is broadcast from Stellenbosch to a number of learning centres across South Africa. Teachers and facilitators communicate through social network groups on their cellphones to support one another, thus becoming communities of practice. This model provides expe-

rienced teachers with the opportunity to continually develop new skills.

Despite numerous challenges, adequate levels of digital literacy for teachers and pupils have the potential to transform learning and teaching practices in schools.

The university's faculty of education and its Centre for Pedagogy acknowledge the importance of these 21st-century attributes and aim to support pre-service and in-service teachers with the development and integration of these skills in classrooms and schools.

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