Personalised learning puts students in a class of their own

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(PhysOrg.com) -- A new learning platform is giving the traditional classroom a radical makeover. Using innovative ICT technology, iClass is putting pupils at the centre of the learning experience and providing them with more control over what they learn.
Every parent believes their child is unique. And they are right. Every pupil has their own individual strengths and weaknesses, and their own particular way of learning. However, putting this commonsense observation into practice is no mean feat, and our schools have generally not been very successful at personalising the learning experience.

In fact, the image of classrooms as 'knowledge factories' has not changed much since the Industrial Revolution, despite the major advances in teaching methods that have occurred. This model holds that teachers input information, pupils process it, and out comes the learning in neat little packages.

"A school is not a factory," bemoaned British novelist JL Carr in his acclaimed novel, The Harpole Report, which tells the story of a primary school headmaster. "Its raison d'être is to provide opportunity for experience."

In recent decades, learning theories have shifted to a 'student-centred' focus, and moved attention away from the teacher, as the imparter of all knowledge and wisdom, towards the pupil or student, while the educator's role has become more that of a mentor and facilitator. However, the standardisation of demanding school curricula and the

often-large sizes of classrooms make the transition to this more personalised form of learning difficult.

ICTs present an opportunity to place the learner at the centre of the learning experience. Traditionally, computers and other information technologies have been treated as subjects in curricula, as word processors or, with the advent of the internet, as powerful research tools for assignments. But ICTs are gradually evolving to become an integral component of the learning experience in general.

Learning gets personal

The EU-funded iClass project has been working to develop an innovative learning platform based on the concept of self-regulated personalised learning (SRPL) which is designed to empower pupils aged 14 to 18 to take more control of the learning process. Led by Siemens IT Solutions and Services, the project brings together 17 partners from the EU, Turkey and Israel to develop an intelligent cognitive-based open learning system and environment.

"We aim to make education more effective, worthwhile and, above all, enjoyable," explains Eric Meyvis, the project's coordinator. "Pupils are becoming increasingly unmotivated. We are using ICTs, the internet and an attractive interface to make learning more fun."

SRPL boosts a pupil's motivation to learn by personalising the learning process, placing an emphasis on self-direction and self-reliance, and trusting the learner to make mindful and meaningful choices. The model follows three distinct stages: planning, learning and reflecting.

In practice, this means that a teacher creates a learning plan based on a goal to be achieved, suggesting some sub-goals and activities, while some activities can be left 'open' for the student to shape. Students then click

on the 'Learn' button to start the assignment. During this process, a system called 'tips and alerts' provides the pupil with some optional guidance. A personal journal encourages the learner to reflect on their choices and what they have learnt.

The path to lifelong learning

Teenagers spend 15% of their time in a school setting, while adults spend a meagre 3% in formal education. The upshot of this is the increasing recognition of informal, as well as lifelong, learning as an important aspect of education. The web-based iClass platform is well placed to link seamlessly the formal and informal learning environment.

It has been designed to provide pupils with ubiquitous access to encourage them to exploit formal and informal learning environments to the maximum.

In addition, by promoting greater self-reliance and a passion for inquiry among pupils, iClass helps equip them with crucial attitudes for the emerging knowledge-based economy, which requires people to update and upgrade their skills and knowledge constantly throughout their lives.

Nothing like a real teacher

At first, the iClass project set itself the ambitious and unrealistic aim of creating an electronic substitute for the teacher.

"We were convinced that the platform could replace teachers, but we soon discovered that this was too technology oriented. We refocused the project to strike more of a balance between technology and pedagogy," recalls Meyvis.

Instead, the platform has evolved to aid the teacher in empowering his or her charges. It also promotes a more open approach to education. However, this departure places new demands on teachers.

"It is a big challenge for schools to switch from traditional learning to iClass methodology, and that is why we have developed a teacher training package. We piloted the training material and teachers were generally enthusiastic about it and the platform," notes Meyvis.

The platform also recognises that the school curriculum in different countries places different demands on teachers, and so has built-in flexibility to allow the system to be customised.

"We have created a versatile infrastructure and it will be up to developers to take the next step and customise the platform for individual countries," says Meyvis.

A leading German publisher is already developing content for the German market and opportunities abound for developers in other countries to tailor the system to other national markets.

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