Education systems around the world are faced with a myriad of challenges arising from the need to respond to the complexities of globalization, inequality (in all its forms) and the pervasiveness and ever increasing power of information technology. Common themes in educational reform are the promotion of student centred learning, the utilisation of information technology and the development of the so called ‘21st century skills’: communication, collaboration, critical thinking, creativity and problem solving. Educational reform is not something which happens quickly but is a slow process which involves coordinated changes at all levels in the system from curriculum development through teacher training to changes in what is assessed and how.

Bridge21 – My research is centred on the exploration of a particular model of collaborative, project based, technology-mediated learning, known as Bridge21, which has been developed through extensive practice, over a ten year period involving the participation of over 14,000 students, in a purpose designed learning space on campus. Encouraged by the success of the model when used in an informal setting, research over the past six years has focused on how the model can be adapted for use in formal settings and in secondary schools in particular. This requires an applied approach to research since the goal is to help both individual schools, and the system at large, to meet the challenges outlined above.

Following what can be broadly termed a design based research approach, a suite of interconnected research activities are being carried out involving:
- student workshops (on topics ranging from English through sexual consent to computer programming);
- input into the education of new teachers via Trinity’s Professional Masters in Education (what used to be the H.Dip);
- professional development for practising teachers (a post graduate certificate in 21st century teaching and learning offered by the School of Education);

The common theme running through this work is that collaborating and working in partnership with relevant stakeholders is a fruitful way for Trinity to contribute to the national agenda.

While the original impetus for this research came from work on developing computer-based tools for teaching and learning, it soon became obvious that technology is just one component of a complex educational system and that collaboration with other areas in the college was necessary to help bring about systemic change.

Brendan Tangney received a BSc from the NUI, an MSc from the University of Dublin and a PhD from the University of Bolton. He joined the academic staff in Trinity in 1985, was elected to fellowship in 2006 and is currently a Professor in the School of Computer Science and Statistics. He is a recipient of the Provost’s Teaching Award and has co-authored over 100 publications. His research focuses on technology in education and educational reform. In 2017 he was invited to chair the Ministerial Advisory Group on the Implementation Strategy for Digital Technology in Schools.

Contact: tangney@tcd.ie
Trinity Access 21 (TA21) – Bridge21 is now part of a very large umbrella project in Trinity known as Trinity Access 21 (TA21) which involves not just Computer Science but also the Trinity Access Programmes (TAP), the School of Education, and the Department of Sociology. This is a longitudinal research project aimed at bringing about systemic change in the Irish Education system with a particular emphasis on addressing social exclusion and promoting 21st Century Teaching & Learning.

Phase one of the project (2014-2017) involved:

- engagement with, and the longitudinal tracking of, 1,100 secondary school students from 11 TAP linked schools;
- 320 teachers (including 80 from the 11 link schools) completing the Certificate in 21st Century Teaching & Learning;
- a further 700 teachers engaging with project related professional development opportunities.

A report on the impact of CodePlus, which involves running Bridge21-based workshops to encourage more girls to study computer science, was launched in March 2018 and the project received $100,000 from SalesForce.org.

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To read the full publication, please click here