# Chapter 3.5
# Interactive Response Systems in Higher Education

**Mick Wood**
*University of Central Lancashire, UK*

## ABSTRACT

The University of Central Lancashire (UCLAN) undertook an "interactive response system" (IRS) pilot scheme using IML Question Wizard (IML), complete with 100 handsets, during semester one of the 2004/2005 academic year. This case study will explain the scheme rationale and methodology of implementation. A number of example applications will be explored and evaluated, including IRS use by academic and support staff, as well as utilising the system at a number of conferences. The case study will conclude with a look at UCLAN's future plans to expand the system.

## INTRODUCTION

The University of Central Lancashire, the sixth largest university in the UK with approximately 36,000 students and 2,500 staff located on four campuses, has a mission-led commitment to widening participation with the aim "to provide the widest possible access to those individuals who seek to benefit from its educational activities and to remove barriers to those with special needs."[1]

UCLAN has a diverse student population, and exceeds Higher Education Funding Council for England (HEFCE)[2] derived benchmarks[3] against a range of factors including disability, students from the socio-economic classes 4, 5, 6, and 7[4], and low participation neighbourhoods. UCLAN also has the third highest number of part-time students across the sector.[5]

Senior management at UCLAN recognised that the diversity of the student population could lead to a higher than average number of students dropping out of their degree programmes. "In many cases it is institutions taking risks in student recruitment by admitting mature students and those without traditional. 'A-Level' qualifications or "highers" that inevitably have the highest drop out rates." (MacLeod, 2002). It is also worth pointing out that behind the statistics lie real people, each one with hopes, dreams, and ambitions, and that "students who discontinue their studies could be

damaging their self-confidence and self-esteem" (McGivney, 1996).

An institutional research project (as yet unpublished)—The Student Experience Project (SEP)—began in 2001. The aim was to gain a greater insight into the student experience by tracking a cohort of 750 students, from pre-enrollment through to the completion of their degree in June 2004, in order to gain an overall picture of their student experience.

The SEP discovered that, although many students were extremely satisfied with their time at UCLAN, others were finding the University experience much more challenging. For example, students enrolled in classes with a large cohort often felt isolated and had little or no connection with other students. This was particularly prevalent for those students who had come from relatively small sixth form colleges where they were more likely to have known their peers well. These findings are consistent with the results of the Institute for Access Studies at Staffordshire University which state that "loneliness is the most likely cause of students dropping out of university … the feeling of belonging was central to the decision to stay or go" (Times Higher, 2002).

Academically, the SEP revealed that many students were used to the highly-structured learning environment of preuniversity education. Although many students enjoyed the challenge of independent learning, others found it difficult to cope with the greater personal freedom of degree-level studies. Some students admitted that they had little idea of what was actually required of them at University, or of how well they were progressing. One solution to this problem is the greater use of active learning in the classroom, that is, "involving students in doing things and thinking about the things they are doing" (Bonwell & Eison, 1991, p. 2).

According to Boyle and Nicol (2003), "there is now a considerable body of research that shows deep and lasting learning is fostered when students actively engage with the concepts they are learning…" An IRS system could encourage active and group/collaborative learning, thereby drawing the more isolated students into the mainstream; be used for both summative and formative testing; and be used in revision classes to help students gauge their own performance.

## IRS PROCUREMENT[6]

Professor Patrick McGhee, Pro Vice-Chancellor (Academic) is responsible for identifying new technologies that may have a beneficial impact on learning and teaching. Following consultation with representatives of the Learning Development Unit (LDU) and Information Systems Services (ISS), Professor McGhee authorised the purchase of an IRS to evaluate its suitability in dealing with the issues raised as a result of the SEP.

The IRS selection process began in March 2003. UCLAN required a flexible and scaleable system with many features, and which was modern, robust, and easy to set up and use. In addition, the system had to fit in with the existing IT systems and infrastructure. IML visited UCLAN to demonstrate Question Wizard and the decision was taken to proceed with IML. The initial investment, equating to approximately $50,000 for a one hundred handset system, places IML at the high end of the IRS financial spectrum.

"The IML IRS provides diverse functionality that allows us to integrate the system with a wide range of teaching and discussion activities. Students and staff immediately recognise the positive benefits of the technology and, unlike so many other classroom devices, the impact is neither superficial, nor short-lasting. Having used the system personally there is no doubt that it provides an immediacy that other technologies do not offer. In particular it allows the less confident audience members to participate as equals alongside the more vocal constituencies, ensuring that sessions are genuinely inclusive." Professor Patrick McGhee, Pro Vice-Chancellor (Academic).

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