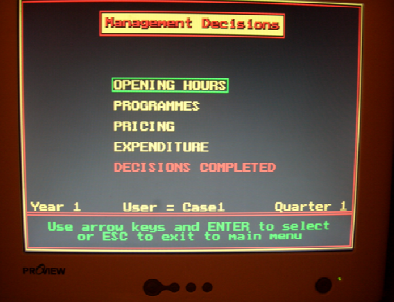
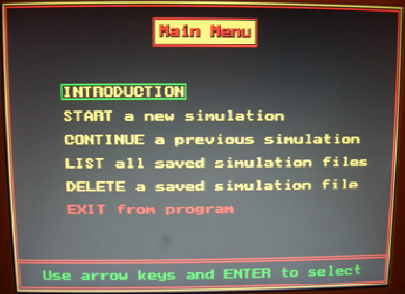
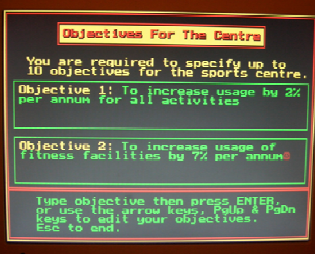
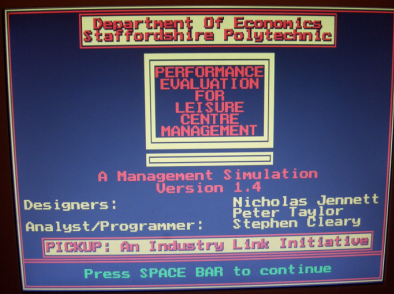


Sim Sports Facility

Developing management simulation software to promote learner autonomy

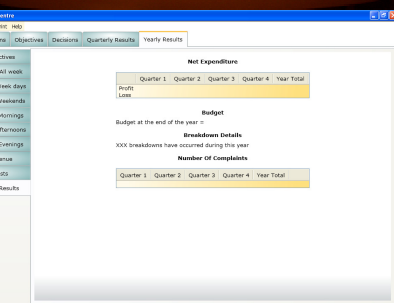
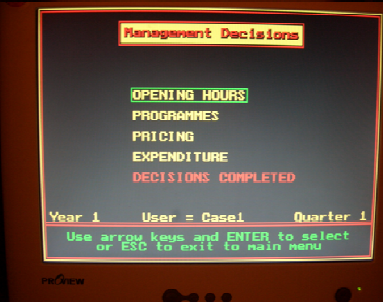
Chris Moriarty (HWB)



Background & Rationale A simulation-based approach to teaching trains learners on how to become metacognitively competent (Salies, 2002). The steps involved in the process of running simulations further reinforce critical thinking and autonomous construction of knowledge. For example, during the briefing stage, participants engage in activities that empower them to plan their performance; during the simulation, performance results are made available immediately, providing feedback for students to reflect on immediately (Bullard, 1990). Simulation tools allow groups or individuals to interact dynamically with a 'living' project (Cano & Saenz, 2003). Because learners take responsibility for their learning, they begin to realize that the process of learning about making good management decisions is an ongoing process similar to many others they experience in their lives, not merely a classroom activity (Salies, 2002).

One of the areas we have had difficulty in conveying to students has been in the field of operations management, and in particular the process of setting objectives and managing to those objectives. One way of making this subject area come more to life for students is the development of a tool which engages them in a live project for which they are responsible, and for which they are able to receive immediate feedback on performance.

Often students experience the challenge of managing performance against objectives in the setting of managing an event. However, events are usually finite, one-off occasions in the student experience and this can curtail the student learning experience through a lack of opportunity for reflection on progress and performance across the module - i.e. evaluation often takes place *post-event*. This limits the opportunity to take that learning into the next event. Our project for a computer simulation engages students in an iterative process of setting objectives, performance indicators and targets; managing the simulated facility to these objectives (by inputting a range of management decisions into the simulation software); receiving immediate, software-generated feedback on performance; evaluating performance and re-evaluating objectives, performance indicators and targets. As such it presents clear opportunities for fostering action-learning. Across a module there would be the opportunity for several iterations of the simulation and the associated benefits of students engaging in continuous evaluation and re-evaluation of individual and group performance and learning.



Approach/method The project can be divided into 3 phases. The first phase consisted of accessing the source codes and algorithms on which the model runs. This phase will also involve running the old model in its existing format with a small volunteer group of students in order to identify improvements to the teaching materials and learning activities that have been developed to operate alongside the simulation, particularly exploring ways in which learner autonomy may be enhanced

The second phase will primarily be concerned with development of the software (updating the facility information which the model uses, creating a modern user interface and adding functionality). To aid the software testing process, workshop sessions would be held with both the volunteer student group. The third phase will incorporate the finalising of the software.

Assessment & Evaluation

Objectives/Outcomes to be evaluated	Evaluation process/method
Engage and energise students in their learning through the use of a high quality, cutting edge learning environment provided by the simulation activity	Post workshop evaluation forms/debrief with student volunteer group
Students' development as autonomous learners is enhanced through engagement in metacognitive processes facilitated by the simulation activity	Post workshop evaluation forms/debrief with student volunteer group and academic staff group
Students experience a number of formative assessment tasks centred on iterations of the simulation activity	Post workshop evaluation forms/debrief with student volunteer group and academic staff group
Staff are able to develop their own skills as facilitators of learning using simulation activity	Post workshop evaluation forms/debrief with academic staff group

Comments

- Overwhelmingly positive student feedback on the simulation seminar:
 - 'This makes it more real, and that's important to motivate us'
 - 'We could quickly assess how we were doing and take a trial and error approach'
 - 'It was in our hands, and that was quite empowering'
- PLUS really useful feedback on how we could further enhance the learning experience.

Contact: Chris Moriarty, Sport Management (HWB) c.moriarty@shu.ac.uk 225 5820

