A SPORTS FACILITY SIMULATION SOFTWARE MANAGEMENT GAME: ENHANCING TEACHING AND THE LEARNING EXPERIENCE VIA COMPUTER SIMULATION

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Abstract

Teaching and learning sport and leisure management can be very dull. Traditional methods are predominantly tutor-led, with the student in reactive mode at best, and in recording mode at worst. Assessments can be equally uninspiring, with unseen exams largely a test of memory and traditional assignments requiring re-interpretation of other people's thinking as represented by the literature. Alternative methods such as 'live' case studies take a lot of setting up, are costly in time and entail risks of failure to deliver both the expected outcomes for organisational clients and the learning outcomes for students.

This paper considers the development, by the authors, of a computer simulation for the operation of a sports facility in response to the issues above. In developing this software the aims have been to create a tool for learning, teaching and assessment which is specific to the sport management field, is student-led and genuinely interactive, which enlivens the learning experience and is flexible in terms of time commitment, from a couple of hours to repeated iterations with changing, externally imposed conditions. The simulation software can be used for individual or group assignments which are dependent on students critically reviewing their own management decisions as well as understanding key management principles. It is essentially a contemporary, electronic version of 'learning by doing'. The use of computer simulation games has a long history, dating back to the 1960s (Keys and Wolfe, 1990), but there has been a dearth of such products which relate specifically to the sport management industry, and particularly those which have been designed with use in undergraduate and postgraduate education.

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).

The simulation software engages students in a continuous process of:
• setting management objectives, performance indicators and targets;
• managing the simulated facility to these objectives by inputting a range of management decisions into the simulation;
• receiving immediate, software-generated feedback on performance;
• evaluating this performance and re-evaluating objectives, indicators and targets.

The simulation is based on a fictional English local authority-owned and managed sports facility, but the operational parameters have been derived from available data on such facilities. Students participating in the simulation receive a detailed handbook which explains the simulation software, provides information on the operation and previous performance of the facility, and describes the tasks required of participants during the simulation. These tasks include inputting various management decisions into the simulation via "decision screens" (see Figures 1 and 2 for examples). First participants are required to specifying objectives and targets for the facility. Following this, operational decisions are made: these decisions include setting opening hours for the facility, programming and pricing decisions for different activity areas within the facility, and some expenditure decisions. Participants are briefed to make these decisions with due regard to the objectives and targets they specify at the outset of the simulation. Once all decisions have been inputted, the simulation provides detailed financial and visitor data for the period of management (see Figure 3 for an example of this data).

This simulation has been used during the academic years 2009/10 and 2010/11 with second year undergraduate students at Sheffield Hallam University studying Sport Business Management. It has formed an integral part of a 10 week Operational Sport Business module - students undertake three simulation seminars during the 10 week programme. As part of their assessment for the module, students were required to complete a short reflection on their learning during the module and their experience of the simulation software. Analysis of students' reflections has revealed that the simulation motivates students due to its novel and authentic nature, the fact that decisions are in the participant's hands and the fact that the simulation presents them with challenging problems and the need to constantly re-evaluate and re-calibrate decisions.

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