

## The Application of Computer-Aided Assessment to Postgraduate Study in Sports Management

Paul Kitchin

Senior Lecturer in the Department of Business and Service Sector Management  
London Metropolitan University

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### Introduction

Computer-aided/assisted assessment (CAA), or Computer-based assessment (CBA) has been developed since the mass-expansion of the personal computer in the late 1980's and early 1990's. A body of literature which reflects the relatively new nature of the field has been developed on the subject - Bull and Danson (2004) offer a comprehensive listing - although the common view is that CAA is 'the use of computers to deliver, mark and analyse assignments or examinations' (Bull and McKenna 2004). Other authors have investigated the use of CAA as a stand-alone assessment tool used in conjunction with class-based teaching or as a tool that is embedded within a virtual learning environment (VLE).

This article does not intend to represent a typology of CAA forms, or a literature review of its benefits, disadvantages or uses but will focus, instead, on theoretical and operational aspects of formative assessment within a specific framework – the kind of learning situation that arises in a class-based environment, accompanied by an on-line teaching environment such as WebCT. That is the current situation within the Department of Business and Service Sector Management at LondonMet and here, the application of CAA to formative assessment will be investigated in the light of the sport management subject area specifically focusing on the MA Sport Management (MASM). The context is the Business and Service Sector Management subject area which is very broad with about 4000 students. The total Sport Management student body is approximately 75, while the MA Sport Management numbers less than 30, hence it is a very small proportion of the total.

The first section will cover the context of formative CAA while section two looks at formative CAA's within the sport management subject area, with a particular focus on current research and its limitations. The third section offers discussion on some of the future directions for formative CAA design and implementation. The final section summarises the main points and provides a self-assessment on the exercise.

### *Formative CAA*

Some research suggests that students' anxiety is a problem in the on-line exam environment and that issues with technical operation are commonly cited as negative factors (Bennett, 2002; Lominé, 2002; O'Reilly and Morgan, 1999). Nevertheless there are some authors who support the use of CAA in this context but who tend to focus on the delivery aspects (tutor led - economic and time advantages) rather than on the user aspects (student led) in an attempt, perhaps, to justify an increase in the use of CAA (Bull and Danson, 2004; Charman, 1999) If they are included it is usually as a footnote (Brown, Bull, Pendlebury, 1997; Perkin, 1999). This lack of critical dialogue here may actually be of benefit as it suggests that new research areas being created. For instance with the current focus on widening participation there could be a possibility that a lack of IT skills in the general community could stall the development of CAA and VLE's in general.

### *Application to Sport Management*

The study of sport management is a relatively new subject area. Put simply, it is the application of management principles to the mixed economy of sport. The application of management principles to this field is becoming more important as the organisations involved in the 'sports business operate within a wide variety of contexts and within the major economic sectors. The increasingly market-driven nature of sport facility management – particularly within the public sector, under competitive compulsory tendering and now Best Value - has created a clear need for staff trained in management principles. The MASM is designed to offer Masters'-level study for this subject area and has been running at London Metropolitan for five years. While similar courses have been in existence for some years at other Universities they have often developed from pre-existing disciplines (e.g. leisure management) are in any event they are still very few in number. Therefore, when considering the introduction of CAA to this field within LondonMet, it is an advantage that there are in reality, no 'established' teaching methods and hence fewer barriers, of all kinds, than in some of the more developed business disciplines.

The use of computer-aided assessment in this field has received very little coverage in the key journals of the sport management subject area - indeed, there are very few journals available and those studies that have mentioned the use of CAA are usually focused on the wider pedagogic, aspects of teaching in an on-line environment - not on its use as formative assessment (Bennett, 2002). One reason for this may be their preference for industry-based research rather than educational advancements in sport management. In this context, sport management academics inevitably turn to the hospitality, leisure, sport and tourism section of the Learning and Teaching Subject Network for any real discussion of pedagogic issues let alone formative assessment through CAA.

Nevertheless the tutor-led advantages of CAA, that are supported by a number of the authors referred to, above, work well given the nature of MASM delivery at

London Metropolitan. The support network for delivery is very good. Tutors have a close association with each other and good practice is shared amongst a small staff team. The use of CAA will be of great benefit to the subject area for a number of reasons. First, teaching delivery and assessment workload is increasing as the Sport Management course becomes more popular at all levels (HND, BA, MA). Allowing the teaching staff to off-load some of the assessment requirements to CAA in WebCT would be both practical and beneficial. The major issue here is transferring a good assessment schedule of case studies, essays, presentations and exams (which have been endorsed by a very thorough external examiner) to forms of CAA that need to be created and then tested for academic rigour.

Secondly, levels of student interaction with the content of the course are decreasing. Students are, in general, reading less and are becoming more passive learners - shown by decreased note-taking activity and almost no completion of their reading requirements. In this context, the use of formative CAA through basic multiple-choice questions can help students engage with the content (specifically the reading and lecture notes) in the VLE and also help them become more active learners in the process. Students can also track their scores throughout the semester and this would make their learning and achievement more concrete as suggested by Bull and McKenna (2004) who state that increasing the frequency of assessment will assist the active learning process and broaden the range of knowledge assessed. This is advantageous as the current assessment schedule for MA level sports marketing could be critically described as focusing students' attention on only two areas of marketing theory (PEST/SWOT analysis and sponsorship) which is hardly an effective representation of the breadth of theory evident in the field. It may also have the effect of reducing the number of students who approach their module work using an assessment-led achievement strategy.

Nevertheless, to increase those benefits, the process of IT induction and progression needs to be addressed throughout the sport management programme because students face two main issues when starting the sport management programme. First, they study a number of generic subjects and they make up only a small proportion of the overall student group. Initial IT inductions are also generic and students are left to make a connection between what they receive here and their own subject and presentations on the use of WebCT are sporadic. Secondly, there is no continuing application of IT skills until the point where students need to create their first assessment, and usually that assesses only word processing skills. Therefore if we were to introduce formative CAA into sports management programmes in order to realise all the benefits mentioned above, then IT induction and progression needs to be greatly improved. This became particularly important given the launch, in Autumn 2005 of a Sport Management Page on WebCT that will provide a hub for the other modules to branch off and provide examples of CAA in an attractive and user friendly way (quiz of the week, self tests on general concepts) that could further increase students technical knowledge of the applications while

contributing to the development of the subject knowledge. This is purely a starting point for CAA use in the sport management subject area. The focus on MASM and the hub site are the authors pet projects, so these are intended to be set up to allow the collection of data that could provide more of a subject specific focus to the topic of formative CAA.

### *Future Directions*

There is currently considerable research being conducted on VLE and CAA needs, from the provision of support for tutor-led sessions to evaluation of student practice and experience. This puts the sport management programme at this institution in a position of advantage because it means that the establishment and integration of CAA within the delivery of the modules becomes a real possibility. Observations of our practice tell us that students are having difficulty engaging in any deep level of interaction with the content of the programmes and that learners are assessment-led. So, formative CAA linked to course content materials can assist in this way and can be made with the aim of saving time over the long-term.

The need to create quality CAA is also important. The advantages and disadvantages of multiple-choice tests as opposed to essays is an area for further investigation, but generally speaking a move to CAA would require some developments in the quality of assessment on offer which is another area for research that can focus on student-led issues.

The continued use of and support for the subject LTSN (now based within the Higher Education Academy) will also be of great benefit to all who teach in this field as they are highly receptive to any input - not just research but also observational and even 'one-off' or anecdotal input.

Finally, if the sport management journals continue to pay only lip service to educational practice issues then this will be to their detriment as the current, evident, gap in knowledge between sport management researchers and teachers will only increase.

## **References**

- Bennett, G. (2002) Web-based instruction in sport management. *Sport Management Review*, 5, 45-68.
- Brown, G., Bull, J. & Pendlebury, M (1997) *Assessing Student Learning in Higher Education*. Routledge: London.
- Bull, J. and Danson, M. (2004) *Computer-Assisted Assessment (CAA)*. The LTSN Generic Centre Assessment Series Guide Number 14. Learning and Teaching Support Network (LTSN): York.
- Bull, J. & McKenna, C. (2004) *Blueprint for computer-aided assessment*. Routledge: London.

Charman, D. (1999) *Issues and impacts of using computer-based assessments (CBA's) for formative assessments*. In S. Brown, J. Bull, and P. Race (Eds.) *Computer-Assisted Assessment of Students*. pp. 85-93. Kogan Page: London.

Lominé, L. L. (2002) Online learning and teaching in hospitality, leisure, sport and tourism: Myths, opportunities and challenges. *Journal of Hospitality, Leisure, Sport and Tourism Education 1* (1) 43-49.

Perkin, M. (1999) *Validating formative and summative assessment*. In S. Brown, J. Bull, and P. Race (Eds.) *Computer-Assisted Assessment of Students*. pp. 55-62. Kogan Page: London.

O'Reily, M & Morgan, C. (1999) *Online assessment: Creating communities and opportunities*. In S. Brown, J. Bull, and P. Race (Eds.) *Computer-Assisted Assessment of Students*. pp. 149-161. Kogan Page: London.

**Biographical note:**

Paul Kitchen is a Senior Lecturer in the Department of Business and Service Sector Management at London Metropolitan University, teaching on the MA in Sport Management. He has a particular interest in computer-based teaching and assessment.

**Email:** p.kitchen@londonmet.ac.uk