Abstract

This panel presentation focuses on the concept of ‘constructive alignment’ for teaching and learning in higher education, with particular reference to its application in the use of learning technologies. It initially draws upon preliminary research findings which indicate that students may often be confused by discrepancies in the structure of learning provision in higher education institutions. The basic principles of the concept are outlined and recent contributions are reviewed. It is proposed that awareness of the wider learning context and continuous reflection are essential in pursuing desirable learning outcomes through the use of learning technologies.

1. Introduction

Online learning has presented some serious challenges for the accomplishment of desirable learning outcomes in higher education, most notably the reduction of potentially meaningful contact with students. At the same time, it offered an opportunity for enrichment in the construction of meaning in student learning. Although the latter appears to be a hotly pursued objective, different methodologies have been proposed and differing perceptions of the concepts and the aims are often observed. An approach which is credited with a great influence in this debate is the one proposed by Biggs who drew on a constructivist understanding of the nature of learning and proposed that all components of the learning and teaching environment, i.e. constructivist learning outcomes, delivery methods and assessment, are aligned and mutually supportive to achieve maximum consistency through the learning process [1] [2]. The aim of this panel contribution is to re-examine the concept of ‘constructive alignment’ in the light of recent research on quality of learning in higher education.

2. Research in progress

More specifically, the contribution is primarily based on preliminary findings from a cross-case study analysis of how students use a Virtual Learning Environment (VLE) as part of their undergraduate studies in a British university. The focus of this research study is to identify patterns in the way students are responding to their academic tasks within VLEs. A methodological model incorporating different sources of data-gathering was used to this aim. An undergraduate module in computing science was examined with focus on certain aspects of the learning environment, such as learning materials, module structure, teaching style, perceptions of workload, relevant institutional policies and support for the use of the VLE. In order to implement this evaluation, web logs were also analysed and questionnaires were given to students, measuring their approaches to learning in that particular context. Selected students were later invited for an interview which allowed to delve deeper into aspects of their learning experiences in this module.

After the first case study, findings indicated that a successful course delivery could also be accompanied by weaknesses and confusion on students’ part. Although the course and the environment was generally thought to be conducive of desirable learning outcomes (in this case a deep understanding of methodologies in engineering of information systems) and the learning outcomes, delivery and assessment were consistently aligned, students perceptions of what was generally required of them were often unclear. When asked about the source of their confusion, they often reported reasons related with their perception of what the university’s expectations were and pointed to possible contradictions between the micro level (module tasks, online tutorials, etc.) and the macro level (completion of their degree). These remarks highlight the need for a detailed examination of the notion of ‘constructive alignment’ and its applicability in the current context of teaching and learning in higher education.
3. The concept of ‘constructive alignment’ and learning technologies

‘Constructive alignment’ is the concept behind the requirements for programmes’ specifications, declarations of learning outcomes and assessment criteria. Curriculum is ideally designed when the learning activities and assessment tasks are aligned with the learning outcomes that are intended in the course. Teachers are encouraged to create an environment which is supportive of students engaging in the appropriate activities. A clear idea is required of what students are expected to be able to do at the end of a unit of study, and communicate these intended learning outcomes to students so they can share the responsibility of achieving them. Assessment therefore needs to test the learning outcomes that students are encouraged to achieve. Alignment is aiming to establish the trust required for students to be confident that they can manage their own learning [1] [2].

Other researchers suggested a broader, more encompassing view of contemporary teaching and learning environments in higher education. They proposed the notion of ‘congruence’ which focuses also on other aspects such as congruence with students’ backgrounds and motivation, learning support, course organization and management as well as the role of feedback [3]. It was therefore argued that less rigid relationships may exist than those described by ‘constructive alignment’. [4]

Considerable efforts have been made to incorporate design principles of constructive alignment in the integration of learning technologies, and a wealth of case studies demonstrate varying levels of success. In principle, the online environment needs to provide clearly identified goals and objectives for the unit, a unit outline pacing the activities for the semester, a description of the assessment activities, and a list of references and web-based resources. The way computer-mediated communication is facilitated plays a crucial role. Students are encouraged to respond to the tutorial exercises by posting their comments and respond to others' postings and engage in arguments and discussions.

Some other functions may also be considered: forming teams for particular tasks, online reviews of grades, structuring of discussions and use of video-conferencing, peer evaluations of team members with individual results for reflection and assessment may be useful in that respect.

4. Discussion

Practitioners are not always successful in engaging students to learning, moderating their online sessions or integrating these aspects of their courses with other existing learning activities or wider initiatives. Consequently, their efforts when using learning technologies often have a limited impact on students’ learning. Ongoing integration of innovation, revision and critical evaluation of teaching practice are deemed to be essential and this undoubtedly applies to the design principles inspired by the guidelines of ‘constructive alignment’. The key player is the reflective practitioner who constantly modifies course design and delivery, and works closer to the perfect constructive alignment. This cannot be achieved or maintained however within an institutional system that does not allow frequent modification of course descriptions or regular evaluation of its teaching and learning strategies and the institutional policies affecting them.

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5. References