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Proposal for Brief Paper - Demonstration

Self assessment techniques in online-learning

Abstract:

On line courses, like face-to-face courses, require some forms of assessment. In the context of constructivist philosophy, self-assessment is perhaps the most meaningful form of assessment. This paper will demonstrate some practical self-assessment strategies and techniques for learners taking web based online courses. These techniques and strategies are incorporated in an online course offered at Teachers College, Columbia University, which focuses on Hypermedia in Education. Making use of digital video, slides, online forms, rubrics, chats and reflections, these techniques and strategies have proved to be essential for the web-based course's learners to monitor their own learning

Introduction

The speaker, and the school master, and the third grown person present, all backed a little, and swept with their eyes the inclined plane of little vessels arranged in order ready to have imperial gallons of fact poured into them until they were full to the brim.
--C. Dickens, *Hard Times*.

Have online learning environments allowed us to move away from the conventional approach to education described by Charles Dickens in *Hard Times*? In the nineteenth century classroom portrayed by Dickens, and unfortunately in too many contemporary American classrooms, the teacher is considered to be the organizer and disseminator of knowledge, while learners are considered to be mere “vessels,” the passive recipients of “facts.” Can online environments provide enough flexibility to overturn this model, so that it is not just the instructor who makes all the decisions about learning—i.e. determining what the learning objectives are, making choices about how and when to use content, assessing the learners’ progress and deciding what the next steps toward the goal of learning will be?

The evidence suggests that online learning environments do, in fact, have great potential in this regard, but that this potential remains unharnessed, perhaps because it is not yet fully understood by those working in the online education field. Instead of imaginative, online learning environments that take advantage of web-based education's new capabilities to serve constructivist goals, again and again, we witness the extensive use in web-based courses of "talking heads" to deliver information and multiple-choice quizzes to assess understanding. These are the old tools, not only of contemporary, pre-digital American education, but of the British classrooms satirically portrayed in *Hard Times*.

Constructivism and online environments

The flexibility provided by web technology allows online courses to be used as constructivist learning environments. In a constructivist learning environment the instructor's role is more that of a facilitator and participant than that of an authoritative knowledge provider. At the same time, the learner assumes more responsibility for his/her learning by setting his/her goals, reflecting on, and evaluating what he/she has learned. Web-based courses provide collaborative spaces for students to communicate both asynchronously or synchronously; they allow students to work independently and at their own pace, and offer rich media environments to accommodate different learning styles. In this context, a reliance on ready-made rubrics and standardized testing as forms of assessment would seem to be a move away from the concept of the learner as the primary agent of his/her own learning. Alternative forms of assessment need to be created to satisfy the needs of the autonomous learner.

Why self-assessment?

The assumption behind self-assessment is that "only the learner can do the learning" (Savignon, 1983). As educators we need to provide the most favorable environment to encourage our learners to find the learning paths that work best for them. In other words, we need to help our learners down the path to self-directed learning and autonomy.

The notion of self-directed learning is not new. Plato, Socrates and Aristotle stressed the importance of self-education and self-realization in learning (Kulich, 1970.) In the

sixteenth century, Erasmus of Rotterdam provided recommendations for self-directed learning, and in the 17th century the philosopher Descartes insisted on the importance of an education based on personal observation of reality and experience of the world rather than books and prescriptive rules. In the twentieth century Bertrand Russell claimed that the only way to teach children to think, is to give them responsibilities so that they would become readers and thinkers of significant thoughts.

Self directed learning techniques, including techniques of self-assessment, have been prized in constructivist classrooms in schools of Education at American universities for years, especially since the educational reform movement began in the 1980s. Why not offer the same opportunities online?

This presentation will show some examples of ways to make use of web technology -- rich media, streaming video and audio, slides, forms and collaborative rubrics for self-assessment in online learning. It will also show how students participate in the construction of some of these options: a number of the self assessment tools in the Hypermedia course were based on feedback from students offering their contributions with their reflections in asynchronous and synchronous discussions during the course.

The online course

The Hypermedia and Education course resides in a customized version of the Prometheus Course Management System called ClassWeb that has been implemented at Teachers College. The CMS operates college wide with about 800 faculty members and 5,000 students, and accommodates both face-to-face and distance learning courses.

ClassWeb is used for a wide range of educational activities: from simply posting syllabi online to exchanging rich media and collaborating in online discussions. It has a testing module (multiple choice), a tracking system and is integrated with the library e-reserves. One can use all its features or just a few. It is very easy to integrate websites inside ClassWeb and disable the features that are not needed. This is the case of the Hypermedia and Education course. The content material, which resides somewhere else, seamlessly opens in a frame within ClassWeb.

The goal of the Hypermedia course is to allow students gain an awareness of the ways in which hypermedia can be used to enhance learning. As part of their work towards this goal, they are asked both to design and evaluate educational hypermedia. Students practice and learn the technical skills necessary to develop a web based hypermedia project using a web editing application. They learn how to digitize video and audio, to edit images and to embed rich media into their websites.

They also examine learning theories from the point of view of their application to educational hypermedia and thoroughly explore important issues in the design of learning environments, such as information architecture, interface design and pedagogical value. Students use the discussion board and the chat embedded in the ClassWeb course management system to exchange their reflections. Self-assessment is progressive and on going. It occurs throughout the process to allow students to clarify and redefine their learning goals.

Examples of Self assessment strategies and tools

Trial and error as ice-breaker

One of the first techniques used in the Hypermedia and Education course is a traditional “welcome video clip,” only this time with a comic twist. Video clips of teacher-created video are proposed to encourage students not to focus on the final product but engage in the fruitful process of trial and error in web design. The video presents natural mistakes that are likely to be made by non-professionals, like the instructor herself. The “talking head” shows an instructor hopelessly attempting to shoot a good clip several times. This is a way to reassure the students who may be first-timers and therefore a little nervous to be online, that even instructors make mistakes. It makes the experience more personal and contributes to the constructivist idea that we must relinquish the notion of the authoritative figure of the instructor.

Direct and Indirect use of Slides

Online slides with pleasant music in the background aim at encouraging the students to check the content to see if they have accomplished all there is to accomplish. Initially the slides use a “direct” approach, they address the learner using the pronoun “you”. (E.g.

“are you all set?”) The use of the pronoun “you” gradually gets replaced by the first person “I.” This shift from “you” to “I” contributes to augmenting a sense of self and exemplifies the gradual change from teacher to student-created content material.

Student update their own records

Upon completion of all assignments, students are encouraged to update their records on a web “chart” by adding check marks next to their names and additional marks that identify their optional work. This is simultaneously an individual and a collaborative learning experience because each student needs to learn the tool sufficiently to complete this part of the self-assessment and together they also need to learn how to manage not to overwrite each other’s files.

Self-evaluation charts

Online charts that are very similar to the ones used in a face-to-face classroom allow students to monitor their learning and at the same time analyze a problem if there is one, and offer a suggestion about what to do next.

Collaborative Rubrics

Students are encouraged to experiment with participatory design in the development of a common evaluation rubric that would fulfill their needs and help them in assessing their weak as well as their strong point.

Reflections

By far the most important form of self-assessment in the Hypermedia and Education course, reflections continue throughout the semester. These include reflections on the learner’s cognitive and meta-cognitive strategies (Wenden, 1991), his/her expectations and perceptions of assessment. Both asynchronous discussions and synchronous chat formats are used for these reflections.

Strategies for the development of the course’s self-assessment techniques have been drawn from students’ reflections over the years that this instructor has been teaching Hypermedia in Education online. A few examples from students’ reflections will follow.

Over the past three years, thanks to the useful students' contributions, the self-assessment portion of the online course has grown considerably and it has proved to be an essential asset to the course.

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