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Assessing Students Through Distance Education
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Introduction

Assessing student learning is an integral part of the educational process. Assessing for true understanding is, at the very least, challenging. Assessing for understanding through online courses and distance education adds another level of complexity and challenge to an already challenging task. Some of the challenges encountered when considering student assessment in Distance Education include Student Identification Authentication, Personal contact between students and Instructors, and the validity of online exams. This paper will discuss the challenge of assessing student learning through distance education and offer possible solutions to increase the effectiveness the task.

Discussion

Of the many challenges associated with online student assessment, perhaps none are more complex than determining the identity of the students themselves. Authenticating student identities has presented a challenge to every institution that has offered, or is considering the implementation of, online courses. This challenge is particularly acute when attempting to assess student learning through online tests, or proficiency exams. Some universities have implemented complex systems of student identification such as:

1. Who we are—fingerprints, iris scans, voice recognition, DNA, and so on
2. What we have—birth certificate, driver's license, passport, digital tokens, and so on

3. What we know—in-wallet and out-of-wallet information about our past, such as financial, geographical, and demographic data

4. Where we are at a specific moment in time—video monitoring, IP address, telephone access, and so on[1]

It is clear that universities will go to any length to ensure that they have authenticated the identities of students working within online courses.

It has also been suggested that the online course instructor must overcome the distance factor in getting to know their online students. That, when attending a face-to-face instructionally designed course, students benefit by being "known" by the instructor. Through discussion, meetings, and personal conversations, instructors get to know individual students and how those students learn best. They also then tailor their instruction to maximize student learning. The majority of online instructional delivery is through asynchronous posts and threaded discussions. Is it possible for online instructors to know their students, and thus provide the same level of understanding as their face-to-face counterparts? Warren,[2] in his study, suggested that there is no significant difference in the outcomes of online versions and the face-to-face versions of the courses that he compared. In a study to determine if online assessments could be fair and equitable, Hewson[3] concluded that while further study is necessary with regards to emerging technologies and online assessment, that regardless of student preference (face-to-face vs. computer based) online assessments are, in fact, a valid method of assessing student understanding.

Educators have long known that in order to assess higher, more critical levels of understanding, alternate methods of assessment, rather than standard question and answer based

methods, are better suited to the task. But, are alternate assessment techniques possible in a distance learning course? Oliver[4], in his comparison of web-based concept mapping tasks found that both individual and collaborative open ended online concept maps were indeed appropriate assessment instruments. He went on to say that online open ended concept maps were "both valuable learning and assessment tools."

One possible synchronous solution to the concerns about assessing students online is the use of synchronous video conferencing technology. Chadchadaporn Pukkaew[5], in her study to determine the effectiveness of internet based distance learning (IBDL) through the V-class education platform (A multimedia educational collaboration platform using a 3D virtual workspace), concluded that there was no significant difference between the achievement of distance learners and their in-class counterparts. Pukkaew[6] also noted, however, that the distance learning students in her study only occasionally engaged in learning behavior, and that their achievement may have been more attributable to tutoring sessions that may have taken place as a result of fear of failing their final exam. Regardless, the success of the distance learning students could not be overlooked.

Another potential challenge of assessing student learning online, is the validity of online tests themselves. Online exams, quizzes, and surveys have been utilized to assess student understanding for more than two decades. Computerized Adaptive Testing (CAT) is an assessment program that steers learners through the exam based on the accuracy of their answers. This asynchronous technology is completely interactive and should be more effective at determining a student's level of understanding than a traditional multiple choice type exam. Ozyurt and Ozyurt[7], in their study regarding the application of CAT assessments to distance

education, found that CAT assessments were more efficient in determining a student's ability level in fewer questions. They also concluded that CAT assessments could provide important benefits to the field of distance education.

Conclusion

Assessing students is a challenge that is further complicated through online courses. These challenges are being met, and in some cases exceeded, through ever advancing technologies. Through both synchronous and asynchronous means, colleges and universities are meeting the rising demand for distance education. Through alternative means of assessment, synchronous and asynchronous means of instruction including video conferencing and discussion boards, and Computerized Adaptive Testing, instructors are beginning to understand their online students better, and are thus able to more deeply assess their levels of understanding.

References:

1. Hewson, C. C. (2012). Can online course-based assessment methods be fair and equitable? Relationships between students' preferences and performance within online and offline assessments. *Journal Of Computer Assisted Learning*, *28*(5), 488-498. doi: 10.1111/j.1365-2729.2011.00473.x

2. Lailie, J., Jortberg, M. (2008). Distance Learning Student Authentication: Verifying the Identity of Online Students. *Volume 3: Finding Common Ground: Programs, Strategies, and Structures to Support Student Success,* 65-68.

3. Oliver, K. (2008). A Comparison of Web-Based Concept Mapping Tasks for Alternative Assessment in Distance Teacher Education. *Journal Of Computing In Teacher Education*, *24*(3), 95-103.

4. Ozyurt, H., Ozyurt, O., & Baki, A. (2012). Architecture and Design Process of the Individualized Assessment System Integrable to Distance Education Softwares. *Turkish Online Journal Of Distance Education*, *13*(3), 212-225.

5. Chadchadaporn, P. (2013). Assessment of the Effectiveness of Internet-Based Distance Learning through the VClass e-Education Platform. *International Review Of Research In Open & Distance*

6. Warren, L. L. (2005). On-line Instruction: Are the Outcomes the Same?. *Journal Of Instructional Psychology*, *32*(2), 148.

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[1] Distance Learning Student Authentication:

[2] On-line Instruction: Are the Outcomes the Same?

[3] Can online course-based assessment methods be fair and equitable?

[4] A Comparison of Web-Based Concept Mapping Tasks for Alternative Assessment in Distance Teacher Education.

[5] Assessment of the Effectiveness of Internet-Based Distance Learning through the VClass e-Education Platform.

[6] Assessment of the Effectiveness of Internet-Based Distance Learning through the VClass e-Education Platform.

[7] Architecture and Design Process of the Individualized Assessment System Integrable to Distance Education Softwares

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