

## Chapter XI

# Web-Based Student Assessment

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## ABSTRACT

*In this chapter, a means of evaluating students in a Web-based teaching and learning environment is examined. Two techniques, summative and formative, are introduced and discussed together with their related issues including delivery and submission, evaluation and feedback, and dealing with cheating. While a summative or traditional technique has been criticized for being too rigid and outdated, a formative or performance assessment technique promises its authenticity, as it requires students to solve real-world problems. It is argued in this chapter, that both techniques serve as essential measures of student learning and should be used in combination. At the end, instructors are provided with guidelines and recommendations for developing and delivering effective Web-based student assessment. The author hopes that understanding the concept and significance of student assessment in a Web-based educational setting will promote the use of proper techniques and render a positive effect on student learning, which we, as educators, value the most.*

## INTRODUCTION

The opening vignette on the next page describes the real-world experience of an instructor who has taught a Web-based course and demonstrates that student assessment is a continuous and incremental process. Throughout the process, the relationship between students and teacher as a mentor has been strengthened. For example, professor Zenzola has continually provided comments and suggestions and engaged her students in interactive discussions and group activities. A discussion board allows everyone to access from anywhere and to post messages anytime, hence, enriching communication and enhancing socialization among participants. This, in turn, enables students to share experience and improve learning through collaboration.

### *Achieving Learning Outcomes*

Professor Zenzola taught a graduate Web-based course titled, "Introduction to Information Systems." One of the primary learning objectives was to make students aware of the importance of information systems (IS). During the first week, she posed a question on a discussion board, "Why do you choose this course?" Many students responded that it was part of the program requirements; while, only a few pointed out the significance of IS in today's business and economy. From those responses, the professor realized that the objective had not yet been met; therefore, she rephrased the question to "Why do you think IS is an important field of study?" Everyone provided positive responses and identified several benefits of IS. Professor Zenzola was pleased that her students finally achieved the learning objective.

A week later, the professor assigned an exercise for students to find a particular piece of information on the Internet. After the search was complete, they were required to write a short essay to reflect what they discovered. The learning objective of this exercise was two-fold. Students had to demonstrate their ability to use the Internet to extract information, as well as to exercise their critical-thinking skills. Using an assessment rubric, professor Zenzola communicated clearly to students her expectations.

Throughout the semester, Professor Zenzola deployed different types of assessments, such as multiple-choice tests, short papers, and group assignments. She provided her students with timely and constructive feedback. As she interacted with them individually using the course's discussion board, she felt connected to each student. On the same token, the students felt the same way through personal attention given to them, even though they had never met the professor in person. The campus administrators became aware of how professor Zenzola instructed her class and recognized her efforts as excellence in teaching.

Student assessment is one of the most important elements in an education system. Using appropriate assessment strategies can have far-reaching implications for faculty development and student learning. The purpose of assessment is to provide a measure of student performance and a context for improving a course or an academic program. The use of assessment accomplishes three outcomes. First, instructors are able to articulate their expectations and learning outcomes they anticipate students to accomplish. Second, students receive meaningful feedback on their progress toward reaching their learning goals. Third, faculty members report the outcomes of assessment activities in their teaching portfolio, where administrators can review and monitor the faculty's professional development.

Timely assessment is strongly related to student retention. Clearly stated learning outcomes and assessment activities enhance student learning and motivate students to commit to their education (Perrin et al., 1992). When they understand what an instructor expects and continue to receive feedback from the instructor, they are likely to remain in class throughout the program. Implementing an effective assessment strategy, in turn, promotes a positive and lifelong learning experience.

In this chapter, student assessment in an online learning environment, or so called Web-based student assessment, is examined. The terms "online" and "Web-based" will be used interchangeably in the chapter. It should be noted that classroom-based and Web-based courses have the same assessment goal of improving student learning, but the means to

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