Chapter 11
A Model of Designing Online Assignments Based on the Revision of Bloom’s Taxonomy

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ABSTRACT

Online assignments play an important role in online teaching and learning, and the revised Bloom’s Taxonomy has been proved to be valuable for real teaching and learning. But few research efforts are put into combining online assignment design with the revised Bloom’s Taxonomy. This chapter is to propose a model of designing online assignments based on the revised Bloom’s Taxonomy, which can be used as a guide for online instructor to design a comprehensive online assignment with helping the students to master the four types of knowledge—factual knowledge, conceptual knowledge, procedural knowledge and metacognitive knowledge—and at the same time help the students develop the six-stage cognitive process.

INTRODUCTION

An assignment is seen as a task that produces a tangible work which is used to reinforce the students’ learning of course materials and help the students master some types of knowledge and skills, as well as help the instructors evaluate their students’ learning. When assignments are utilized correctly, they can inform the instructors where their students are and how to better direct their students to the learning goals. Dougherty (2012) asserts that the well-crafted assignments can help make learning and teaching more relevant and focused.

Assignments are usually designed to align with the instructional objectives for providing feedback for both students and teachers about the learning at the various stages of instructional cycles. But the students learn when the objectives are relevant and clear as well as the assignments are designed to challenge them to think (Dennison, Dempsey & Rosselli, 2014).

Online assignments can be seen as the copying ones which are used in classroom learning. However, there exist some differences: 1) online assignments can make most use of the multimedia elements such as video, audio and graphics, which could improve the students’ learning experiences; 2) online group assignments can easily involve Web2.0 tools such as blogger, wiki and discussion board, which could not only help enhance students’ social presence in the online communities, but could also increase their learning motivations (Wang, 2011); and 3) compared to classroom assignments, cheating can happen much easily in online assignment, especially for the assignments which were expected to be completed by students individually.

The revised Bloom’s Taxonomy has provided a promising framework to design what-to-assess and how-to-assess assignments for instructors (Popham, & Popham, 2005). Bissell and Lemons also (2006) present that the use of Bloom’s Taxonomy has helped increase the students’ mastery of skills and critical thinking. However, few researches put efforts into utilizing the revised Bloom’s Taxonomy for online course assignment design based on the literature review. This chapter tries to combine the online assignment design with the revised Bloom’s Taxonomy, and focuses on how to effectively design online course assignments in combination with the revised Bloom’s Taxonomy. The chapter includes four sections: 1) discussing the types of online assignments; 2) presenting the difference between Bloom’s Taxonomy and Revised Bloom’s Taxonomy, and discussing how they could be used to design an online assignment; 3) proposing a model for designing online assignments based on the revised Bloom’s Taxonomy; and 4) providing an example of using the model to design online assignments for an online course.

**TYPES OF ONLINE ASSIGNMENTS**

An assignments could provide a relative practice of the current lesson, prepare for the upcoming lesson, and extend the students’ thinking on a subject-domain, as well as draw on the students’ creative work for solving some real problems in their lives. But the amount and types of assignments should be designed based on students’ developmental levels, since the shorter and more frequent assignments may be more effective than the longer but fewer assignments (Cooper, 2007). Therefore, providing what types of assignments for students, and when to provide these assignments need to be carefully taken into account.

An online assignments may include one or more formats as follows: 1) single-choice questions; 2) multi-choice questions; 3) true-false questions; 4) matching questions; 5) fill-in-the-blank questions; 6) concept mapping question; 7) short answer questions; 8) essays ; 9) programming or application tasks; 10) design and development tasks; 11) polls; 12) surveys; 13) quizzes; 14) discussion board posts and contributes; 15) blogs; 16) wiki posts; 17) peer-reviewed journal article reviews; 18) literature review of a topic; 19) personal or group project presentations and reports; 20) collaborative writing assignments; 21) paper tasks related to course content; 22) field tasks or case studies related to real life conditions; 23) simulations or role plays; 24) portfolios, and 25) reflection tasks.

It is not possible to list all the assignment types exhaustively which may be included in an online assignment, but for each assignment, the instructor should consider these questions: 1) are the assignments appropriate for the students; 2) what kinds of knowledge can be grasped by the students through completing the assignments; 3) do the assignments involve the flexibility of using technologies; 4) do the assignments help hone students’ problem-solving skills; 4) do the assignments lead to inquiry and critical thinking; 5) do the assignments help the students become independent learners; and 6) where do the assignments lead?
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