# Chapter 15 Developing Student e-Portfolios for OutcomesBased Assessment in Personalized Instruction

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# **ABSTRACT**

This chapter investigates the pedagogical issues of student electronic portfolios (e-portfolios) in the context of personalized instruction for undergraduate education. The discussion elaborates on the educational potential of an e-portfolio system in facilitating an outcomes-based assessment of student achievements. The chapter illustrates practical examples of integrating theory and practice aimed at assisting a meaningful investigation of an e-portfolio system with a focus on inquiry-based student assessment. The objective of such an inquiry is to enhance and encourage student learning, especially learning by doing. Key issues and the necessary institutional support for an outcomes-based and personalized model of education in support of a portfolio learning system are identified. The interrelationship of portfolio assessment to curriculum and pedagogy and required changes to teaching and learning are described. The relevant learning theories that underpin the portfolio form of assessment are deliberated to caution how best to manage the use of e-portfolios for student learning and assessment. Looking beyond, it is expected that the e-portfolio system is an important element to support outcomes-based education involving collaboration from both faculty and students in pursuit of a quality learning experience.

# INTRODUCTION

Interest in assessment for student learning at colleges and universities has skyrocketed in the late twentieth century and continues to grow. Today there emerges an imminent need on the part of many a

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university to learn how to do student assessment, and do it the right way to empower student learning. The idea of outcomes-based assessment (OBA) is not new, and it is related to an educational model in which curriculum and pedagogy and assessment are all focused on student learning outcomes. It is an educational process that fosters continuous attention to student learning and promotes institutional

accountability (Driscoll & Wood, 2007). Simply put, the OBA model emphasizes such important practices (Larkin, 1998) as: Faculty publicly articulating assessment information in advance of instruction; students being able to direct their learning efforts to clear expectations; and student progress and acquisition of learning being determined by evidence demonstrated in achieving the learning outcomes. So, the key component in the OBA model of education is outcomes which inform curriculum, teaching and assessment. Maki (2004, p.60) describes a learning outcome as what students should be able to demonstrate, represent. or produce based on their learning histories. Huba and Freed (2000, pp.9-10) describe learning outcomes as teachers' intentions about what students should know, understand, and be able to do with their knowledge when they graduate. For obvious reasons, university faculty is the most appropriate source of student learning outcomes. The issue is how faculty should be empowered in the process of assessment to enhance student learning. One of the most important conclusions about the effect of outcomes on student learning comes from the studies of John Biggs (1999). Biggs found that student achieve deep learning when they have outcomes on which to focus. If students do not know what is important to focus on in their studies, they try to cover all the information, so they skim, they cram, and they stay on the surface. If they have a priority or focus, they are able to dig, to expand, and to achieve depth of understanding. According to Derek Rowntree (1987), if we wish to discover the truth about an educational system, we must look into its assessment procedures. What student qualities and achievements are actively valued and rewarded by the system? How are its purposes and intentions realized? To what extent are the hopes and ideals, aims and objectives professed by the system ever truly perceived, valued, and striven for by those who make their way within it? The answers to such questions are to be found in what the system requires students to do in order to acquire the expected learning outcomes. It is

convinced that the electronic transformation of student portfolio assessment, coupled with the context of personalized instruction, with the advent of the Internet technologies should define the de facto curriculum, and promote sustained institutional dialogue about the OBA impact in a learning-centered education.

# BACKGROUND

Today, the use of portfolios have fast become a desired tool for assessing student learning (Zubizarreta, 2009; Johnson, Mims-Cox, Doyle-Nichols, 2006; Banta, 2003) because they are designed to provide authentic evidence of what students know, believe, and are able to do. Assessment for student learning is considered authentic when it focuses on real performance and mastery of a field of knowledge. If instruction is the means by which content, standards, and outcomes are made known to students, then assessment measures the degree to which the standards and outcomes have been achieved. As instructors in higher education, we realize that using portfolios with our students is increasingly transforming the way in which we interact with and engage them in the learning process. This is the kind of appraisal that engages teachers in the process of developing, reviewing, and evaluating portfolios of student work based on explicit criteria and procedures called scoring rubrics. The portfolio is to document what students know and are able to do. Students collect and select pieces of their own work over a period of time as evidence of completing their learning objectives or targets. Usually, students also write a rationale to explain why they think the selected pieces are their best work. Teachers exercise their advising and mentoring roles in the process, recognizing that when instruction is personalized, only authentic forms of assessment can appropriately characterize student performance. Student portfolios may include artwork; essays and other writing samples; logs or journals; notes and reflections;

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