

Chapter XLIV

Usage of Electronic Portfolios for Assessment

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ABSTRACT

This chapter introduces the use of electronic portfolios (e-portfolios) as an assessment method in the K-12 classroom. Aligned with the constructivist approach, the term e-portfolio is considered to be an umbrella, actually comprising of various components reflecting both the teaching-learning process and the end products. Having many advantages, the use of e-portfolios is spreading all over the world. This chapter, in which issues such as conceptual underpinnings, possible advantages and challenges, implementation ideas, and content and assessment criteria for e-portfolios are also reviewed, concludes with suggestions for teachers who are interested in implementing e-portfolios into their own subject fields.

INTRODUCTION

Educators are in constant search of the most effective evaluation method, where students are involved in different teaching methods. In addition to the many traditional methods of evaluation, like take-home exams, oral exams, written exams containing multiple-choice, true-false, matching and short-answer items, alternative methods for evaluating students' performances have come into existence. Among these alternatives are self-evaluation, peer evaluation, observation, authentic assessment and the use of rubrics and portfolios (Corcoran, Dersheimer & Tichenor, 2004). In recent

years, educators have therefore been reassessing their notion of student assessment by beginning to focus attention on examining the relationship between the assessment of student competence and student achievement. At the center of the emergence of these different evaluation approaches lies the reality that we cannot evaluate every kind of knowledge and skill in the same way. Hence, educators may use standard tests to measure cognitive skills, while they prefer observation for measuring the application performances of students in class. It is imperative, therefore, to select the proper and most effective evaluation method in accordance with the performance type. Since

effective teaching is sensitive to teaching contexts, parallelizing the practice with the assessment to reach consistent conclusions is a fundamental topic for investigation (Pecheone, Pigg, Chung & Souviney, 2005).

Over the course of recent years, constructivism has gained prominence due to being a learner-centered approach that requires the active participation of students (Schunk, 2007; Richardson, 2003). Thus, in classes where constructivist approaches are implemented, students have the opportunity to engage in learning by doing, enhancing their critical skills and shaping their learning process as active participants. Since the teaching-learning process is reshaped in the classrooms through the application of a constructivist approach, assessment methods should be adapted so as to parallel the assessment. Constructivism, being both learner-centered and authentic, can be linked with performance evaluation through the use of electronic portfolio (e-portfolio) assessment strategies (Read & Cafolla, 1999). By using e-portfolios, students have the chance to reflect on their learning, while teachers have the opportunity to provide detailed feedback on students' work (Ahn, 2004, p. 16). Hence, in unison with the constructivist approach, which is accepted and widely used throughout the world, portfolio development gained increased status as a means of assessment. Conversely, the advancement in technology together with the power of Internet has brought educators to the point that assessments should also be supported with the technology. Combination of constructivist approaches with the support of technology has brought us to the point whereby portfolio assessment can be carried out in an electronic environment. As a consequence, from among the many alternatives in measurement and evaluation area, e-portfolios are becoming popular in recent years.

Constructivism tends to combine past and present teaching and learning theories, by placing the learner at the core of the teaching-learning process. Thus, the learner interacts with the surrounding

environment and gains an understanding of its various properties. The constructivist classroom presents the learner with opportunities to build on prior knowledge and understand how to construct new knowledge from authentic experience. In constructivist view, elimination of standardized tests and grades are encouraged. Instead, assessment should become a part of the learning process where the students take responsibility of judging their own progress. This idea, also supported by Rogers (1994) underlines the importance of "experiential learning" and points out the following qualities: (a) personal involvement, (b) learner-initiation, and (c) evaluation by learner, besides some other qualities. Moreover, Rogers' humanistic approach encourages that students should participate completely in their own learning process and they should have control this process together with the product, since self-evaluation is the principal method of assessing progress or success (Rogers & Freiberg, 1994).

CONCEPTUAL UNDERPINNINGS

The wide usage of portfolios has been observed in K-12 throughout recent years. According to Barrett (2001), "A portfolio is a purposeful collection of student work that exhibits the student's efforts, progress and achievements in one or more areas". Barton and Collins (1997) list the work that may be found in a portfolio as *artifacts* (documents produced during the normal academic studies), *reproductions* (learner work produced outside the program), *attestations* (documents reflecting learners' academic improvement), and *productions* (documents prepared for the portfolio). Similarly, an "electronic portfolio" is defined as the compilation of portfolio items stored in electronic formats such as audio-visual, graphical or text (Barrett, 2001). E-portfolios are a valuable learning and assessment tool which are classified as a digitized collection of artifacts including demonstrations, resources, and accomplishments

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