

## A research experience using portfolios for assessing college teaching

### Una experiencia de investigación utilizando portafolios para evaluar la docencia universitaria

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In this article, we use the findings of a study conducted in a university in the southeast of Mexico to examine strengths and limitations of portfolios to assess formatively the quality of teaching. The research is part of the study: Model for the Development and Evaluation of Academic Competencies, involving researchers from six Mexican universities. Findings of the study indicate that the use of portfolio allowed faculty members to collect evidence of the quality of their work, analyze their classroom instruction and began to involve in a dialogue for improving teaching.

**Keywords:** Portfolios, Teaching evaluation, Higher Education.

En este artículo, usamos los resultados de un estudio que se lleva a cabo en una Universidad del sureste de México para examinar las fortalezas y limitaciones de los portafolios para evaluar de manera formativa la calidad de la docencia. La investigación es parte del estudio: Modelo para el Desarrollo y Evaluación de Competencias Académicas e involucra a investigadores de seis universidades Mexicanas. Los resultados de la investigación indican que el uso del portafolio permitió a los docentes coleccionar evidencia sobre la calidad de su trabajo, analizar su práctica en el aula y comenzar a involucrarse en un diálogo para mejorar la docencia.

**Palabras clave:** Portafolio, Evaluación de la enseñanza, Educación Superior.

## **1. Introduction<sup>1</sup>**

Among the three main functions of the university, the one that presents more challenges for evaluating is teaching. This happens because of its complexity, since the instructor is only one among several factors that can influence student learning. As Ernest Pascarella (2006) and Mary Ann Clark *et al.* (2007) state, the intellectual and personal development of students are affected by countless influences. Some of them derive from the individual student and his or her family<sup>2</sup>, curriculum content, classroom environment, goals and institutional models, as well as the way in which these are understood and interpreted by administrators and teachers.

In addition, student learning is influenced by the organizational climate, the environment external to the school, which includes the sociocultural context, norms and a vision about the kind of life story we are partly to prepare. Student cognitive and personal development are also much influenced by the influence of peers and other groups.

Regarding the instructors, there is also a variety of factors influencing their capacity to influence student learning. Among them, there is instructor proficiency in the course content, the didactics of the content knowledge, the instructor's capacity to adapt his or her teaching to the characteristics and needs of students, the teaching context, the way in which the content is taught and the way in which it contributes to the accomplishment of the learning objectives of other curriculum courses and to student development, and more (Stake & Cisneros-Cohernour, 2004).

In spite of the complexity and multiplicity of factors, most teaching evaluations are based on student ratings of teachers, collected by a questionnaire that is provided to students at the end of the course. It is presumed that, although crude, there will be substantial correlation between these ratings and all the other data that could be collected. This view is common around the world, and no less so in Latin America (Arbesú & Argumedo, 2010; Rueda, 2009).

Student perceptions of teaching are important, but too insensitive to the abiding complexity. The decision to use a single source of information and disregard the complexities of teaching raise issues about the validity of the evaluation results and its interpretation. As Stake (2000) asserts, the quality of teaching should be judged in the context in which it takes place, considering more than a few influences. Otherwise, decisions from the evaluation will have low validity.

Conducting evaluation studies about faculty development in response to teaching complexities is consistent with research conducted in the field of faculty evaluation during the last forty years. In addition, it is essential to take into consideration that most of the questionnaires used for evaluating teaching are not only a limited source of information, they have not been validated in across contexts and cultures<sup>3</sup>. For example,

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<sup>2</sup> According to the literature, among the factors related to student learning at the individual level are: perseverance and determination, self-confidence and own capacities, family influences and friends (Clark *et al.*, 2007).

<sup>3</sup> As John Ory and Kathryn Ryan (2001) state, much more research is needed on the external validity of student perceptions of college teaching and the factors influencing the ratings.

in 1999, Daniel Pratt *et al.* conducted a study of teaching evaluation in Hong-Kong and found that the questionnaires used for evaluating teaching, based on the original versions developed in the US, Great Britain, Australia and Canada, were of little use for assessing the quality of teaching in Eastern nations. As these authors state: “ the practice of using questionnaires and scales developed in other countries, used to obtain information about the quality of teaching in Hong-Kong and China can result in the imposition of values from another culture, particularly in relation to the appropriate role, responsibilities and the form in which professors relate to their students” (p. 1).

In response to the need for additional forms of evaluation, during the 90’s, began the use and popularity of portfolios as instruments for assessing teaching. A portfolio is a collection of products and artifacts that demonstrates the merit, range, history, situationality and complexity of a person’s work that provides evidence of his or her activities and accomplishments. Portfolios can be used for assessing both students and teachers (Wolf, 1996).

In this work, we use the findings of a study conducted in a university in the southeast of Mexico to examine strengths and limitations of portfolios to assess formatively the quality of teaching. The research is part of the study: Model for the Development and Evaluation of Academic Competencies, involving researchers from six universities: Universidad Autónoma de Chihuahua, la Universidad de Baja California Campus Ensenada, la Universidad Autónoma de Yucatán, así como de la Universidad Nacional Autónoma de México, Universidad Iberoamericana y Universidad Autónoma Metropolitana.

## 2. Method

Consistent with the methodology of the Model for the Development and Evaluation of Academic Competencies, college instructors from the College of Business Administration of a Southern Mexican university, were invited to participate in a workshop. The instructors developed their own teaching portfolios and analyzed the conditions of teaching and its evaluation at their university. In addition, the instructors analyzed the utility of the portfolio as an instrument for personal reflection and its pertinence for assessing the quality of their teaching. A portfolio was to focus partly on the following characteristics of the instructor’s teaching practice:

Table 1. Portfolio components as evidence of teaching competence

COMPETENCY	COMPONENTS REFLECTING THE COMPETENCY
Planning the teaching and learning process	Teaching philosophy Course and class planning documents
Conducting the teaching process	Self-analysis inventory <sup>4</sup> , class observation analysis
Valuing the impact of the teaching and learning process	Techniques and instruments used to assess students Self-assessment of student achievement (emphasizing evidence) and faculty evaluation results.

Note: Elaborated by authors.

<sup>4</sup> Self-analysis inventory. It consists in obtaining a self-assessment of our own teaching abilities, in order to detect needs and interests for professional development. The instrument was a translation of the one developed by Janice Orrell (2001), based on the seven principles of Arthur W. Chickering and Zelda F. Gamson (1997). It consists of two sections: personal data (gender, age, level of education, type of work, work schedule, courses taught) and self-assessment. This section has 52 statements related to: instructor-student interaction, student-student interaction, active learning, timely feedback, time on task, high expectations, and respect to student diversity, talents and ways of learning, professional conduct.

Each component of the portfolio was assessed using rubrics developed by the authors of the model.

### **3. Findings**

The analysis of the data resulted in quantitative findings from each of the rubrics, findings that were then reviewed by the instructor, the other faculty members participating in the workshop, and the instructional specialists conducting the workshop.

The faculty members reported the numerical results not to be a useful part of developing the portfolios. Instead, the instructors stated that the process of preparing the portfolios made them aware of inconsistencies between their teaching philosophy and their practice. Particularly they realized almost no inconsistencies between their course planning/assessment with the curriculum plan, partly because both were based on a competency model. However, they began to discuss the advantages and disadvantages of using this formative evaluation approach (Bloom, Hastings & Madaus, 1971; Scriven, 1967).

In analyzing the video tapes of their teaching, the instructors realized the need for improving their practice in relation to expectations about their students and the need for providing them with feedback in timely matter. In addition, instructors identified important aspects they needed to improve interaction with their students. Much of their analysis focused on lecturing as the main method of teaching.

According to the instructors, the main value of developing the portfolios was its potential for reflection and dialogue. Professors not only were able to reflect on their strengths, weaknesses, and areas for improvement, they also began to engage in reflection as a community of practice (Johnson-Lenz & Johnson-Lenz, 1997). After the workshop, the instructors began to share their classroom experiences, and began to use the portfolios to initiate discussion about how to improve teaching in their college. They looked for what they could do to help each other improve teaching. The analysis changed from individual to group, a new dialogue started about how the teaching of an individual professor related to the others teaching the curriculum.

There are two functions here, portfolio development and portfolio reflection, not necessarily sequential. For some purposes, it is important to complete the portfolio, to have a product for reflection and display. For formative purposes, the act of contemplating and designing the portfolio provides simultaneous opportunity to diagnose teaching behavior. It is a form of needs assessment. Contemplated portfolios can be an instrument for the improvement of teaching.

### **4. Conclusions**

This paper described the preliminary findings of a study using portfolios for improving college teaching at a university in Southern Mexico. The scrutiny took place during a workshop that allowed instructors to initiate a dialogue about teaching in the context of their institution, their teaching philosophy as well as an analysis of their practice and their peers' practice,

Even though the portfolios did not provide an ethnographic analysis of the instructors' teaching, their conceptualization allowed the instructors to collect evidence of the

quality of their work. The workshop provided a dialogue for analysis of their classroom practice. This is important augmentation to a single instrument or a single source of information. Multiple measures can lead to better understanding of what is needed for improving of teaching quality (Gardner, 1983; Stake & Cisneros-Cohernour, 2004).

Using portfolios in a workshop contributed to analysis and dialogue among the participants and the nurturing of a community of practice. The workshop participants became “a group of professionals informally united, ... exposed to common problems and looking for common solutions, [becoming themselves] a source of knowledge (Johnson-Lenz & Johnson-Lenz, 1998; Stake & Cisneros-Cohernour, 1999).

The creation of communities of practice among teachers can be vital not only for assessment purposes, but for developing and improving teaching quality. As a wide range of research indicates, one of the best formats for teacher to learn and improve is when they work together with others. Formative evaluation work comfortably involves working together in these communities to develop a qualitative appraisal of teaching. The administrator’s responsibility is to encourage the work of the community and to facilitate the conditions needed for change. Setting a goal of portfolio development can be useful, where the act of contemplation and design provides a form of needs assessment. The portfolio itself may be the lesser goal. Reflexive contemplation may be the greater.

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