

## LINKING PROGRAM LEVEL ASSESSMENT TO COURSE LEVEL ASSESSMENT ACTIVITIES

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### ABSTRACT

*Assessment, or better stated, the assurance of student learning, has become a central issue in both the internal and the external evaluations of degree programs offered by colleges and universities. The continual importance of assurance of learning activities within institutions of higher education has generated a growing need to create empirical assessment efforts that are both meaningful and relevant to whatever goals and objectives an institution of higher education plans to achieve. Most of the learning that the institutions seek to assure takes place in the context of individual courses. For that reason progress in making assessment measurements more impactful suggests an approach that links specific class assignments and activities to specifically desired learning outcomes. The present paper presents an Assessment Validation Model. The model points out the linkages between and among activities relevant to assessment. The paper also provides empirical data that both demonstrate the effectiveness of the AVM and focus on validating the relationships between university level assessment objectives and learning objectives designed to be achieved within an individual class.*

### Introduction

As a result of a variety of pressures and incentives, assessment activities have become a central issue for discussion, study and action on university campuses. (Black & Duhon 2003) Governmental agencies, private foundations that provide funding for university programs, and accrediting agencies are increasingly requiring that institutions of higher education provide credible evidence of the effectiveness of their programs in meeting the frequently lofty objectives and goals stated in their proposals for funding, in their bulletins and on their web sites ( AACSB 2007; Folger 1977; Martel 2007). Additional pressure

is being applied by both students and parents faced with paying increasing tuition and fees (Burke 2005; Peterson 1999). Students are especially concerned about whether the high level of debt they have assumed in order to pay their educational expenses will, over time, yield a positive cost/benefit ratio (Business Week 2012, Porter 2002).

An additional source of pressure on universities to increase their assessment efforts is generated by the increase in the numbers of for-profit universities in general and, more specifically, those institutions that stress a direct connection between the programs they offer and specific fields of employment (Deming et. al 2011, Fain 2011).

In addition to these specialized programs community colleges are being advised, or in some instances directed, to focus more on employment based programs of study (Goldstein et. al 2012, Page 2012).

## WHAT IS ASSESSMENT?

Assessment is the act of measuring student learning and the goal of an assessment system is to ensure that curricula and programs are effectively meeting the needs of students and, especially in the case of a business school, the expectations of our constituent employers. Institutions of higher education have, over many years, created plans and implemented programs directed toward assessment or, as perhaps better stated, assurance of learning programs. These efforts are directed toward individual programs offered by individual colleges (see, for example, AACSB White Paper No. 3 (2007)). As such, assessment provides a mechanism for evaluating the impact of courses on students' development, and allows for a data-driven process for the continuous improvement of curricula and programs. Palomba & Banta (1999), for example, define assessment as the systematic collection, review and use of information about educational programs undertaken for the purpose of improving student learning and development.

While there seems to be consensus regarding the importance of assessment, arriving at a comprehensive and agreed upon operational definition of assessment seems to represent a very real challenge. Take, for example, the multiplicity of approaches to assessment suggested to business programs by accreditors, colleagues, and assessment experts (AACSB 2003, 2007; Bennis & O'Toole 2005; Martell & Calderon 2005; Pringle and Michel 2007; Martell 2007; Rubin & Martell 2009; Suskie 2004; Walvoord 2004). This lack of consensus regarding assessment measurement seems to have led to operational definitions that are situation specific and often border on the idiosyncratic (Eshenfelder, Bryan & Lee 2010). At one end of the range of assessment operationalizations is the long-held notion that assessment can be equated to grading. At the other end of the range, some educators believe that assessment requires a more abstract approach that measures learners' empowerment (e.g., Novak 2002). Left to their own interpretations about assessment

activities, some faculty members seem to draw upon the classics and operationally define the concept as: "doing as I am doing" (Tallise 2003).

It's understandable why many faculty members hold to the idea that grades are the best measure of assessment and serve as empirical proof of the assurance of learning. However, serious discussions of learning, for example, Hill (1970), among many others, indicate that grades are really not a measure of "learning" but a measure of "performance". Performance is what we as faculty members test and evaluate and we do so precisely because we cannot empirically measure how much a student may have learned beyond the answers to the questions we have chosen to ask and the assignments we have chosen to require (Berrett 2012).

Assessment requires something beyond offering simple literary definitions of the concept and certainly beyond the simplified individualistic ostensive definitions based entirely on grades or subjective observations. These definitions are not completely wrong, they are just not complete and do not provide the information needed to determine, to the satisfaction of all parties concerned, whether or not the data collected and analyzed represent demonstrable assurance of learning outcomes. Whatever the definition of the concept of assessment or assurance of learning, the evidence for and the validation of these concepts must be found in results yielded by empirical research. Assignments are the principle vehicle for delivering student feedback relevant to the assessment process. Student feedback is most effective when it can be explicitly connected to specifically defined learning goals and objectives (Araund & Wakefield 2006; Nichol & McFarlane 2006; Hattie & Timperly 2007; May & Tidwell 2007; Sampson & Betters-Reed 2008; Choi, Tong & Kelley 2010; Gikandi, Morrow & Davis 2011)

The challenge, then, is to connect course-level activities with program level assessments. The Assessment Validation Model (AVM) (see Figure 1) outlines the appropriate steps for proceeding to assess an individual course or a program of courses. The process begins with a delineation of specific goals of the institution and proceeds to a choice of course objectives relevant to the institutional goals. Based upon the course objectives, the model requires that specific measurement methods and the appropriate measurement outcomes that are interpreted as proof that these objectives

have been met be clearly stated. Beyond these operations the model provides for course-program connections as the model measures the relationship between specific assignments/activities and the learning goals of a course and/or program. If the several measurements are in agreement, this represents a validation of the course objectives and the institutional goals and so illustrates the relationship between the course objectives and institutional goals.

**ASSESSMENT: AN EXAMPLE STUDY**

In this paper the authors present a successful faculty instituted approach to assessment. Our purpose was to demonstrate the relationship between University level goals and the learning objectives prescribed for sections of an individual course. While the course included many measurement methods (examinations, quizzes, various assignments), this particular assessment example will focus on a particular assignment called “Environmental Scan Reports. The purpose of the assignment was to reinforce student’s understanding of Marketing terminology and strategy by having them bridge the gap from concepts covered in the textbook to contemporary business strategies and tactics reported within the business or popular press” (see O’Keefe, Kemp & Kelly 1996 and 2006 for more information on this assignment). As described below, assessing the effectiveness of this assignment involved linking the assignment to learning objectives for the course and those for the university overall.

Figure 2 presents the learning objectives for the course and those for the university. Assuring that these objectives have been satisfied requires proof

derived from the outcomes of direct measurements of assignments such as the Environmental Scan.

**Methodology and Measurements**

The example study employed a six-item survey in which each question was related to course and university learning objectives (see Figure 2). The survey instructions informed the students that the Marketing Department was interested in assessing the degree to which the environmental scan assignments contributed to their understanding of basic marketing terminology, concepts, and strategy. The items were measured using five-point scale ranging from 1 (no contribution to my understanding) to 5 (significant contribution to my understanding).

The survey was administered at the same time as the course teaching evaluations. Both of the forms were distributed and collected by a student assistant. The instructor was not present when the data were collected. The results of both surveys were analyzed independently and the results reported to each instructor.

The course instructors had agreed that, in order to consider that a learning objective had been satisfied, at least 75% of the students surveyed had to report the course provided considerable or significant contribution to their student’s attainment of a given learning goal. In other words, a learning goal was considered to be satisfied if 75% of the responses fell into the top two response options. Anything less than 75% would indicate that more time should be spent on a particular learning goal. The data are reported in Table 1.

<b>FIGURE 1 ASSESSMENT VALIDATION MODEL</b>		
Program Level	Mission (Goals)	
	Learning Objectives	
Course Level	Learning Objectives	Feedback for Validation and Calibration
	Content	
	Activities/Assignments	
	Assessment	

**FIGURE 2**  
**COURSE AND UNIVERSITY LEARNING OBJECTIVES**

**Course Learning Objectives**

**As measured by examinations, quizzes and a series of written environmental scan reports, students completing Marketing 301 are expected to:**

- Demonstrate recall and recognition of basic marketing terminology and the operational (measurement based) definitions of relevant terms.
- Demonstrate familiarity with the basic elements of marketing strategy and the relationships between and among these elements.
- Demonstrate an understanding of the controllable and the uncontrollable variables relevant to the success or failure of marketing programs, tactics and strategies.
- Demonstrate an understanding of competitive advantage in a firm's marketing programs and strategies.
- Demonstrate the ability to bridge concepts discussed in the text and these same concepts appearing in articles within academic and practitioner publications and the popular business periodicals.
- Demonstrate improvement in both oral and especially written communication.

**Relevant University-level Learning Objectives**

- **Mastery of Content:** A DePaul Graduate will establish mastery of a body of knowledge and skills in depth and breadth.
- **Articulate Communication:** A DePaul graduate will be able to communicate articulately in both the spoken and written word, being able to read and listen critically in order to understand the conversation in progress, and to adjust diction and style to the anticipated audience, to the subject matter and to the purpose of the communication. The goal recognizes the necessity that a student's ability to communicate, keep pace with the subtlety, precision and depth of the student's knowledge, sensibilities and deliberative powers.
- **Critical and Creative Thinking:** A DePaul graduate will be capable of thinking critically and creatively, integrating knowledge and ways of knowing, making reflective judgments, identifying significant ideas and their underlying assumptions, biases and presuppositions.

**Results**

Table 1 summarizes the results of the student survey data collected to determine whether the Environmental Scan assignment contributed to student learning. As the results reported in Table 1 point out, in all but one instance, better than 75% of the students surveyed reported that the assignment had a positive impact on meeting the learning objectives specified for the assignment. Also the researchers chose relevant university level learning objectives and as can be seen in Table 1, the learning objectives specified for the class are concordant with those university objectives.

**SUMMARY**

Assessment or Assurance of Learning is serious business. Assessment plans are important but in the end institutions of higher education will be evaluated by how well and how rationally these plans are implemented and the results that implementation yields. Thus, institutions cannot simply expect that the whole will somehow be greater than the sum of its parts and that a mosaic of multiple, idiosyncratic assessment activities will somehow morph into a seamless portrait of assessment provides assurances that students have made appropriate gains while moving through a program of study.

<b>TABLE 1</b>						
<b>RELATIONSHIPS BETWEEN ASSESSMENT ITEMS AND LEARNING OBJECTIVES FOR THE COURSE AND UNIVERSITY GOALS</b>						
<b>Class Learning Objective</b>	<b>Assessment Items Distribution (n=137)</b>					<b>University Learning Goal</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
Demonstrate <b>recall and recognition of basic marketing terminology</b> and the operational (measurement based) definitions of relevant terms.	1.5%	0.0%	10.9%	59.9%	27.7%	<b>Mastery of Content</b> A DePaul graduate will establish mastery of a body of knowledge and skills in depth and breadth.
Demonstrate <b>familiarity with the basic elements of marketing</b> strategy and the relationships between and among these elements.	0.0%	1.5%	16.1%	56.2%	26.3%	<b>Critical Thinking</b> A DePaul graduate will be capable of thinking critically and creatively...
Demonstrate an <b>understanding of the controllable and the uncontrollable variables</b> relevant to the success or failure of marketing programs, tactics and strategies	0.0%	2.2%	18.4%	50.7%	28.7%	<b>Critical Thinking</b> A DePaul graduate will be capable of thinking critically and creatively...
Demonstrate an <b>understanding of the controllable and the uncontrollable variables</b> relevant to the success or failure of marketing programs, tactics and strategies.	0.0%	1.5%	12.5%	44.1%	41.9%	<b>Mastery of Content</b> A DePaul graduate will establish mastery of a body of knowledge and skills in depth and breadth.
Demonstrate an <b>understanding of competitive advantage</b> in a firm's marketing programs and strategies	0.0%	2.2%	25.5%	51.8%	20.4%	<b>Critical Thinking</b> A DePaul graduate will be capable of thinking critically and creatively...
Demonstrate improvement in both oral and especially written <b>communication</b> .	0.7%	4.4%	19.1%	54.4%	21.3%	<b>Articulate Communication</b> A DePaul graduate will be able to communicate articulately in both the spoken and written word...
Note: A grey box indicates that a learning objective was satisfied because at 75% or more of the respondents reported that the assignment led to a significant to considerable contribution toward a course learning objective.						

Colleges and universities are free to adopt and implement comprehensive assessment programs and to use the data derived from these programs to implement changes in various components of educational programs. Whatever the methods chosen, in the end the overarching goal of assessment programs is to encourage continuous improvement and innovation which are recognized as critical for maintaining progress and growth

in both the private and public sectors of society. Currently, most assessment activities measure students' progress toward program-level learning goals. As most student learning takes place within individual courses, there exists a need to link the activities that happen within a course with the overall learning goals that are being assessed. The Assessment Validation Model (AVM) provides a mechanism for linking course activities

and program-level learning objectives. Using this model, it was demonstrated that instructors can see the impact of particular assignments on students' attainment of desired learning outcomes. Further, and perhaps most importantly, the information gained through the AVM can be used to highlight deficiencies in students' development and links the deficiency to particular course activities.

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