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An Integrated Course Design Model for Beginning Faculty

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It is rare that faculty members begin their first full-time teaching position with an integrated and consciously constructed practical model for course design, teaching, and learning. The purpose of this article is to offer new faculty members a starting point for constructing an integrated model of the course design and teaching and learning processes. The model begins with the instructor's choice of course learning goals, objectives, and outcomes and progresses through the translation of those learning goals and objectives into articulated evaluation and feedback rubrics, the choice of specific learning activities and materials reflected in a learner-centered syllabus, the conduct of the in-class activities, and the choices of learning assessments. These elements are highly interactive and iterative, as well as contextualized with respect to such issues as course location in a program, class size, student learning development and diversity, and individual faculty differences. We provide resources and usable examples for new faculty. *Organization Management Journal*, 11: 180–192, 2014. doi: 10.1080/15416518.2014.940438

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It is rare that instructors in higher education begin their first full-time teaching position with an integrated and consciously constructed and understood practical model for teaching, learning, and course design. Doctoral programs in the business and management fields seldom offer required doctoral courses that focus on course design and pedagogical knowledge and development. Instead, they assign undergraduate courses to teaching-assistant doctoral students while casting them adrift with respect to the knowledge and competencies that are the hallmark of effective teachers and effective student learning.

When the newly minted doctorate arrives at his or her first institution of higher education, there is frequently a mixed bag of opportunities for pedagogical and faculty development available. In some universities, schools of business, and even large departments, there are Centers for Teaching Excellence and Development or their equivalents in which new instructors can find support for developing their competencies and knowledge in the teaching and learning domains (for a fine description for setting up a center, see Gillespie, Hilsen, & Wadsworth, 2002). However, there is wide diversity in their staffing and funding, as well as in their use by instructors, whether new or seasoned. There are also mentoring programs (Boyle & Boice, 1998; Jipson & Paley, 2000; Nicholls, 2002), both formal and informal, that claim notable benefits for both parties to the mentoring process as well as for the institution. But there is very little research to back up this claim and to document just where mentoring programs in higher education exist. As a result, new faculty members are generally left to their own initiatives to discover paths to pedagogical development and course design. And the question still exists as to whether or not there is an integrated model such as the one offered in this article.

To add to this disappointing picture, expectations to engage in the scholarships of discovery and application (Boyer, 1990) still take precedence over engaging in the scholarship of teaching and learning (SOTL) and the scholarship of integration (Boyer, 1990) when it comes to tenure and promotion decisions (Dehler, Beatty, & Leigh, 2010). This priority for discovery and application scholarship for tenure and promotion purposes continues in spite of recent changes in Association to Advance Collegiate Schools of Business (AACSB) standards that place greater emphasis on assurance of learning (Betters-Read, Nitkin, & Sampson, 2008). Furthermore, the emergence of new pedagogical journals such as the *Academy of Management Learning and Education* and *Decision Sciences Journal of Innovative Education* alongside the more established *Journal of Management Education* and *Management Learning*, as well as recent books on SOTL (Andre & Frost, 1997; Cole & Knowles, 2000; Kleber, 2001; Glassick, Huber, & Maeroff, 1997; Hutchings, 2002; Hutchings, Huber, & Ciccone, 2011; McKinney, 2007; Weimer, 2006), have raised the visibility of both SOTL and what it means to be an outstanding or accomplished teacher (Bain, 2004) and a scholarly teacher (Dehler, Beattty, & Leigh, 2010; McKinney, 2007).

The purpose of this article is to offer new instructors an integrated model of teaching and learning as well as course design that can be a starting point or springboard for their essential professional developmental activities over the first few years of responsibilities as a faculty member (see also Weimer, 2002; Whetten, 2007). The model begins with the instructor's

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choice of desired student learning goals, objectives, and outcomes for the course and progresses through the translation of those learning goals and objectives into articulated evaluation and feedback rubrics, the choice of specific learning activities and materials reflected in a learner-centered syllabus, the conduct of the in-class activities, and the choices of learning assessments. Although there appears to be an overall sequential character to those activities, in actuality they are highly interconnected and iterative, as well as contextualized with respect to such issues as course location in a program sequence, class size, student learning development and diversity, and individual faculty differences. This article addresses each of those segments of the model in that order before concluding with a discussion of the contextual factors. Throughout the discussion of the model, there are cited resources and examples that are practical and usable for further exploration and development.

THE MODEL

The model, presented as Figure 1, is a model that evolved over the authors' combined 60 years of experience in the classroom. The authors certainly did not start out with this model in mind, nor did it quickly emerge as an obvious model. It also did not come from any faculty development or faculty mentoring process in place at their university or within their school or department, because none existed. Rather, it is primarily the combined result of an evolutionary process based on trial and error in collaboration with their students, a willingness to read and experiment with the SOTL literature and the ideas found there, participation in pedagogically oriented conferences and conference workshops, and occasional spontaneous conversations with each other and other academic colleagues.

The visual presentation of the model in Figure 1 shows six elements:

- The chosen course learning goals, objectives, or outcomes (Mager, 1997; Naumes, 2013).
- Informing these by Bloom's Taxonomy (Athanassiou, McNett, & Harvey, 2003; Bloom, 1956) or Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001).
- The translation of those learning objectives, goals, or outcomes into articulated rubrics (Arter & McTighe, 2001; Stevens & Levi, 2005; Tierney & Simon, 2004).
- A set of learning materials and activities, including activities for guided practice and scaffolding (Goldstein, 1999; Pea, 2004).
- Informing these by student learning style diversity and development (Coffield, Mosley, Hall, & Ecclestone, 2004; Hawk & Shah, 2007).
- Leading to an appropriate choice of assessments that should include feedback (Huba & Freed, 2000; Marzano, 2006).

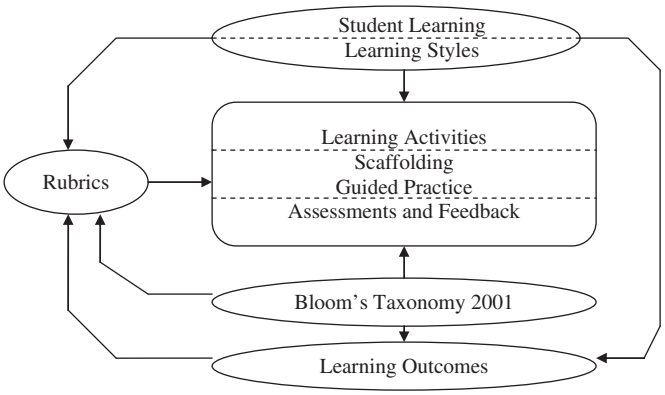

FIG. 1. The integrated model.

However, there are three explicit overlays that are difficult to represent in Figure 1. They are the situational context (programmatic, institutional, and societal) within which the course takes place, the temporal context to represent both the evolving and socially constructed nature of the course content and the dynamic process nature of learning for students within the course, and the instructor as an active chooser of course features as well as an active learner-in-process (Rodriguez, 2012).

The starting points of the model are the course learning objectives, goals, or outcomes as chosen by the instructor or a group of instructors for multiple section courses. Mager's (1997) focus on specific, measurable student outcomes provides a sound starting point for building the learning objectives. Bloom's Taxonomy (Bloom, 1956: Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation) or Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001: Remember, Understand, Apply, Analyze, Evaluate, Create across Factual, Conceptual, Procedural, Meta-cognitive Knowledge) can significantly inform both the choice of the learning objectives/goals and their sophistication as long as those choices are done in the context of the larger program goals within which the course is located (see also Athanassiou, McNett, & Harvey, 2003; Naumes, 2013).

Once the instructor has chosen and articulated the learning objectives, goals, or outcomes, the next step is to translate them into specific feedback and evaluation rubrics (Arter & McTighe, 2001; Stevens & Levi, 2005; Tierney & Simon, 2004) for inclusion in a learner-oriented syllabus (Grunert O'Brien, 2008). Depending on the learning goals, an instructor can choose a holistic rubric where a single grade is given based on multiple dimensions for the assessment or an analytic rubric where each dimension of the task receives a grade and a weight, resulting in a weighted overall grade for the assessment. Arter and McTighe (2001) and Stevens and Levi (2005) also offer the faculty a choice in a range of levels of student involvement in the design of course rubrics.

The next step is the consideration and choice of learning activities, such as the passive lecture or the more active

experiential processes of discussion, case method, laboratory, research project, field work, and so on. Since the context is higher education, the students should be considered in a range of stages as developing and adult learners (Baxter Magolda, 1992, 1999; Cross, 1992; Knowles, Holton, & Swanson, 1998) from novice to accomplished. That assumption leads to a choice of adult learning models and theories (Merriam, Caffarella, & Baumgartner, 2007). And the choice of learning activities is driven by such issues as the diversity of student learning styles (Coffield, Mosley, Hall, & Ecclestone, 2004; Hawk & Shah, 2007), faculty learning style preferences, the number of students in the course, the physical characteristics of the classroom, and the learning goals/objectives.

Finally, an instructor must address the issue of how to assess the level of the learning by the student (Betters-Read, Nitkin, & Sampson, 2008; Huba & Freed, 2000). In a global sense, there are selected-response assessments and constructed-response assessments (Arter & McTighe, 2001). The choice of learning assessments (Huba & Freed, 2000) depends on the nature of the learning goal/objective, which, in turn, is related to where the goal falls within the taxonomy of learning objectives (Anderson & Krathwohl, 2001; Bloom, 1956) and can depend on what is manageable within the class size. For example, the Knowledge category in Bloom (1956) and its equivalent, the Remember category, in Anderson and Krathwohl (2001) easily lend themselves to selected-response assessments and machine grading. On the other hand, the higher level categories such as Apply, Analyze, and Evaluate that are common to both taxonomies necessarily require constructed-response assessments with the likely obligation for some form of written or verbal instructor feedback, preferably formative in character. When the instructor's choice of learning goals embraces the learning categories beyond the first two categories of both taxonomies, the instructor is further obligated to consider the amount of scaffolded learning and guided practice (Goldstein, 1999; Pea, 2004) to be given. Instructors engage in scaffolded learning when they enlist the interests of their students, reduce the degrees of freedom that the student can take, maintain or keep a focus on the direction of the learning, highlight critical features of the task, control sources of frustration, and provide idealized solutions as examples. Guided practice includes modeling appropriate behavior, giving feedback, managing task contingencies, questioning, and cognitive and task structuring. The use of higher order taxonomy categories also requires the consideration of the level and extent of feedback to be given on the constructed responses (Hattie & Timperly, 2007; Hunsaker, 1983; Juwah et al., 2004; Michaelsen & Schultheiss, 1988; Shute, 2008) and when.

The next four sections offer a more in-depth discussion of the preceding four paragraphs and the interrelationships among them. Keep in mind that those interrelationships are iterative within the course design process and subject to revision as the faculty member gains in experience and becomes a more accomplished pedagogical learner (Rodriguez, 2012).

LEARNING GOALS AND OBJECTIVES AND BLOOM'S TAXONOMY

The instructor's choice of course learning goals and objectives (Mager, 1997) is dependent on both the instructor's pedagogical knowledge and competency and the learning purposes the course serves in the context of the program and degree learning goals. If the course appears at the beginning of a program, it may have the responsibility for introducing students to the early phases of the content knowledge in a domain and have no content prerequisites other than those possibly found in the general education program. On the other hand, the course may appear in the middle of a program built on prerequisite material from earlier degree-program and general-education courses and preparing students for the advanced courses at the end of the degree program. Or it may be a capstone course that requires the use of all or most of the courses that come before it in the degree program and integrates them. In the latter two cases, there are likely to be more sophisticated learning goals for the course.

Mager (1997) presents a straightforward and accessible framework for developing effective course learning objectives. He describes (p. 4) instructional objectives as "a collection of words and/or pictures and diagrams intended to let others know what you intend for your students to achieve. It is related to intended outcomes, rather than the process for achieving those outcomes. It is specific and measurable, rather than broad and intangible. It is concerned with students, not teachers." He goes on to state that sound instructional objectives are about doing. The process of crafting effective course learning objectives includes task listing, task analysis, skill derivation, objectives drafting, skill-hierarchy drafting, and curriculum derivation. Mager incorporates a high degree of faculty creativity in developing the learning objectives.

Bloom's Taxonomy (1956) and Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001) offer attractive frameworks within which to craft those course learning goals and objectives. The original Bloom's Taxonomy (1956) is a single-dimension framework that sets out six taxonomical categories of learning and several subelements in five of the six (see Table 1). The six categories increase in sophistication and complexity as they move from the Knowledge category through the Comprehension, Application, Analysis, and Synthesis categories to the final category, Evaluation. The expectation is to move the learning goals/objectives of the course from the Knowledge category further along the taxonomy as the course progresses. Similarly, as a student progresses through a degree program, the course and program learning goals are suppose to focus less on the Knowledge and Comprehension categories and more on the higher taxonomical levels of Application, Analysis, Synthesis, and Evaluation.

Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001) is a more complex, two-dimensional configuration of the taxonomy using verbs instead of nouns as dimension (category) titles. On one axis, it lays out six levels of Cognitive Process dimensions: Remember, Understand, Apply, Analyze, Evaluate,

TABLE 1
Bloom's Taxonomy (Bloom, 1956)

1.00 Knowledge
  1.10 Knowledge of Specifics
    1.11 Knowledge of Terminology
    1.12 Knowledge of Specific Facts
  1.20 Knowledge of Ways and Means of Dealing with Specifics
    1.21 Knowledge of Conventions
    1.22 Knowledge of Trends and Sequences
    1.23 Knowledge of Classifications and Categories
    1.24 Knowledge of Methodology
  1.30 Knowledge of the Universals and Abstracts in the Field
    1.31 Knowledge of Principals and Generalizations
    1.32 Knowledge of Theories and Structures
2.00 Comprehension
  2.10 Translation
  2.20 Interpretation
  2.30 Extrapolation
3.00 Application
4.00 Analysis
  4.10 Analysis of Elements
  4.20 Analysis of Relationships
  4.30 Analysis of Organizational Principles
5.00 Synthesis
  5.10 Production of a Unique Communication
  5.20 Production of a Plan or a Proposed Set of Operations
  5.30 Derivation of a Set of Abstract Relations
6.00 Evaluation
  6.10 Judgements in Terms of Internal Evidence
  6.20 Judgements in Terms of External Evidence

and Create, each with several subelements. On a second orthogonal axis, it has added four Knowledge dimensions: Factual, Conceptual, Procedural, and Metacognitive, each with subelements. Each of the six Cognitive Process dimensions cuts across all four of the Knowledge dimensions (see Table 2). Similar to the original Bloom's Taxonomy, as a student progresses through a course and a degree program, he or she should expect to see the Cognitive Process learning goals move from the Remember and Understand dimensions to the more complex Apply, Analyze, Evaluate, and Create dimensions, as well as moving across a wider range of Knowledge dimensions to include Factual, Conceptual, Procedural, and Metacognitve dimensions.

The authors have used Bloom's Taxonomy (1956) and, more recently, Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001) to map the learning goals for their introductory undergraduate and capstone undergraduate and graduate courses. In the case of the undergraduate introductory management course, most of the learning goals fell within the lowest two taxonomical dimensions. However, the authors deliberately included several learning activities that required students to move into Apply, Analyze, and Evaluate levels so as to prepare students for higher level learning goals in courses later in the program. For the two capstone courses where enrollments were less than 25 per course, they mapped their courses across all Cognitive Process dimensions of the taxonomy and as many of the Knowledge dimensions as they could include, with strong emphasis on the top four Cognitive Process dimensions. All of the assessments were constructed-response assessments accompanied by extensive instructor feedback and one or more opportunities to practice. Faculty members should look for opportunities to expand the coverage of the levels in whichever taxonomy they find more useful, but the authors prefer Bloom's Revised (Anderson & Krathwohl, 2001) and believe that Bloom's Revised, with its Cognitive Process dimensions as verbs and its four Knowledge dimensions, reflects more accurately the framework that faculty members actually use in constructing course and program learning goals and activities. New instructors should find Athanassiou, McNett, and Harvey (2003) and Marzano (2006) useful resources for incorporating either taxonomy into their courses.

TRANSLATING THE LEARNING GOALS INTO FEEDBACK AND EVALUATION RUBRICS

After choosing and specifying the course learning goals and outcomes, an instructor should translate those learning goals into detailed feedback and evaluation rubrics (Arter & McTighe, 2001; Stevens & Levi, 2005; Tierney & Simon, 2004) for inclusion in the syllabus. This is also where the instructor should give some attention to the differences in selected-response and constructed-response assessments (Arter & McTighe, 2001). If the course learning goals focus primarily on the Knowledge and Comprehension categories or the Remember and Understand dimensions, selected-response assessments are quite compatible with those goals. This may also be a necessity in the case of courses with large enrollments. On the other hand, if the learning goals encompass the higher levels of the taxonomical categories or dimensions and if the course enrollment is less than 30, then constructed-response assessments are highly desirable.

Arter and McTighe (2001), Tierney and Simon (2004), and Stevens and Levi (2005) make strong cases for presenting feedback and evaluation rubrics in the syllabus (Grunert O'Brien, 2008) to communicate to the students the learning goals, the elements of the learning goals on which they will be assessed for learning, and the performance levels that result in the different grades available (Tierney & Simon, 2004).

There are two types of feedback and evaluation rubrics (Arter & McTighe, 2001; Stevens & Levi, 2005): holistic rubrics and analytical rubrics. Holistic rubrics list all of the elements considered in evaluating a learning assessment but offer the student a single grade plus written feedback for performance on the assessment as a whole (Table 3). The analytic rubric, on

TABLE 2
Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001)

The Knowledge Dimension	Factual		Conceptual			Procedural			Metacognitive		
Cognitive Process Dimension	A.a	A.b	B.a	B.b	B.c	C.a	C.b	C.c	D.a	D.b	D.c
Remember											
1.1 Recognizing											
1.2 Recalling											
Understand											
2.1 Interpreting											
2.2 Exemplifying											
2.3 Classifying											
2.4 Summarizing											
2.5 Inferring											
2.6 Comparing											
2.7 Explaining											
Apply											
3.1 Executing											
3.2 Implementing											
Analyze											
4.1 Differentiating											
4.2 Organizing											
4.3 Attributing											
Evaluate											
5.1 Checking											
5.2 Critiquing											
Create											
6.1 Generating											
6.2 Planning											
6.3 Producing											

A.a = Terminology
A.b = Elements
B.a = Classifications
B.b = Principles
B.c = Models/Theories
C.a = Skills
C.b = Techniques
C.c = Criteria
D.a = Strategic
D.b = Tasks
D.c = Self-knowledge

the other hand, lists all of the elements considered in evaluating the learning assessment but offers written feedback and grades on each of the elements, which can also carry differing weights (Table 4). The rubrics also contain descriptions of performance levels, usually three, four, or five, for each element and the grades attached to each performance level (see Tierney & Simon, 2004). In addition to communicating to the students the learning goals and the elements of each of those learning goals in the syllabus at the beginning of the semester, the rubrics can be a guide for the instructor in the format of the written feedback to the student on his or her performance on the assessment.

Faculty members also should know that they have a choice in the level of involvement they give to the students in the creation of the course feedback and evaluation rubrics. At one end of the continuum, students have no involvement in the creation of the rubrics, what Stevens and Levi (2005) call the Presentation Model. The instructor takes sole responsibility for the choice of

TABLE 3
Holistic rubric for a class presentation

Exemplary (A performance)
Your presentation addresses the assigned topic. You introduce the topic with clear definition. You identify and explain all characteristics and any subcategories of the topic. You provide multiple examples to illustrate the topic. You make a variety of suggestions regarding use of the topic in the classroom. You provide a bibliography of at least ten books on the topic in correct APA format. Your presentation is well organized, well written, and visually attractive.
Proficient (B performance)
Your presentation addresses the assigned topic. You define the topic. You identify and explain the characteristics and subcategories of the topic. You provide at least two examples of the topic. You make at least two suggestions for classroom use of the topic. You provide a bibliography of ten books.
Acceptable (C performance)
Your presentation addresses the assigned topic. You define the topic. You identify the characteristics and subcategories of the topic. You provide an example of the topic. You make a suggestion for classroom use of the topic. You provide a bibliography of less than ten books.
Weak (D performance)
Your presentation addresses the assigned genre. You identify the characteristics or subcategories of the topic. Your presentation lacks examples or instructional suggestions. There is only a partial bibliography.
Unacceptable (F performance)
Your presentation does not address the assigned topic. You do not identify and explain the characteristics or subcategories of the topic. Examples and instructional suggestions are not included. There is no bibliography.

each learning goal as well as the development of the rubric and its elements, weights, and performance dimensions. Students find the rubric in the syllabus and can only ask clarifying questions to the instructor. At the other end of the continuum, the students collaborate with the faculty member on designing the learning goals, the elements, the weighting, and the performance levels, with the instructor performing more of a facilitator role for the process, or the 4 × 4 Model for Stevens and Levi. Stevens and Levi (2005) offer detailed descriptions of the processes for both of these models, as well as for the Feedback Model, the Pass-the-Hat Model, and the Post-it Model in between. The authors like to use the Feedback Model and give the students the rubrics, with the opportunity to ask clarifying questions and modify the rubrics, where appropriate, then give them a say in the weightings of the elements by discussing their preferences for weights within acceptable ranges and arriving at a class consensus. But the nature of the course learning goals as well as the preferences of the instructor should drive the level of student involvement.

Regardless of where on the continuum the student involvement takes place, it is important for the instructor to engage in discussions with the students about the clarity of the rubrics and their understanding of the performance expectations arising from the rubrics. This is particularly important in constructing the performance level scales (Tierney & Simon, 2004), where consistency across all descriptions of the performance levels is critical. Tierney and Simon do a fine job of explaining this process.

Once the students fully understand the rubrics and how the instructor will use them, the rubrics offer the instructor a solid platform for evaluating the performance of each student and for giving whatever level of feedback is practical for the instructor to give. Having feedback and evaluation rubrics, particularly analytic rubrics, can allow an instructor to embrace constructed-response assessments in larger classes. They give the instructor a ready-made framework for checking off where the student's performance lies, as well as readily available elements on which to make brief comments. Some faculty members provide freeform written feedback based on the rubric elements. Others make their feedback comments on a copy of the rubric.

THE CHOICE OF LEARNING ACTIVITIES

There is a clear relationship between the learning goals of the course chosen by the instructor (or the program faculty as a whole), the learning activities the instructor chooses to allow the students to succeed in the learning, and the content and design of the feedback and evaluation rubrics that communicate those learning goals to the students. There is also a further and important relationship with the diversity of the ways in which both the students and the instructor learn and the learning activities that encourage the learning to take place. Both of those complex

TABLE 4
Analytic rubric for a class presentation

1. Content of Presentation (?%). The content of the presentation is relevant to the course, supported by factual information, consistent in its logic, supported by analysis, and is convincing.
   A. I effectively cover all of the required content components of the presentation.
   B. I effectively cover most of the required content components of the presentation.
   C. I effectively cover some of the required content components of the presentation.
   D. I effectively cover few of the required content components of the presentation.
   F. I do not cover any of the required content components of the presentation.
2. Organization of the Presentation (?%). The presentation has an introduction, a main body, and a conclusion where the components fit together and flow well.
   A. The presentation has all of the components and they fit together and flow well.
   B. The presentation has most of the components; there are weaknesses in the fit and flow.
   C. The presentation has some of the components; there is a poor fit and flow.
   D. The presentation has a few of the components; the sections are unrelated to each other.
   F. My presentation shows no real purpose and direction and is disorganized.
3. Visuals of the Presentation (?%). The visuals are appropriate for their purposes; appropriate in content; accurate in content; complete in content; show known information, assumptions, and calculations; are designed well; are accessible in format to the audience.
   A. Visuals have all of the above characteristics.
   B. Visuals have most of the above characteristics.
   C. Visuals have some of the above characteristics.
   D. Visuals have a few of the above characteristics.
   F. There are no visuals for this presentation.
4. Delivery of the Presentation (?%). The delivery of the presentation is spontaneous (not read), easily heard, clear in diction, varied in tone and inflexion, animated with gestures, and conducted with audience eye contact. The presenters are professionally dressed and effectively address audience questions.
   A. The delivery has all of the above characteristics.
   B. The delivery has most of the above characteristics.
   C. The delivery has some of the above characteristics.
   D. The delivery has a few of the above characteristics.
   F. The delivery has none of the above characteristics.
5. Time Frame of the Presentation (?%). The time limit for the presentation is 10–15 minutes.
   A. The presentation duration falls within the specified time limits.
   B. The duration is 1 minute less than or more than the specified time limits.
   C. The duration is 2 minutes less than or more than the specified time limits.
   D. The duration is 3 minutes less than or more than the specified time limits.
   F. The presentation duration is 4 minutes less than or more than the specified time limits.

and dynamic relationships suggest that instructors need to have a working familiarity with, one, a wide repertoire of learning models/theories and activities and, two, the characteristics and diversity of the ways in which students—and themselves—learn as "adults." In this section we address both of these issues.

Merriam, Caffarella, and Baumgartner (2007) have compiled an extensive critical examination of adult learning theories and models that are appropriate for formal, informal, nonformal, and online learning contexts. In addition to covering models of adult learning such as that offered by Knowles, Holton, and Swanson (1998), they provide chapters that examine self-directed learning, transformational learning, experiential learning, spiritual and narrative learning, critical learning theory, and feminist models of learning. In each of these chapters, Merriam and her colleagues not only review multiple models for each but also offer critical evaluations of each model, emphasizing the strengths, limitations, and practical applications.

An excellent example would be the chapter on experiential learning, a pedagogical approach currently held in high regard among business school faculty and where Kolb's (1984) model is essentially the only one considered. Merriam et al. (2007) review two constructivist models of experiential learning, from Kolb (1984) and Jarvis (1987, 2006), as well as three more that are more contextual in character (Boud & Walker, 1991; Usher, Bryant, & Johnston, 1997; Fenwick, 2003). They compare and contrast the five models, identifying the critical

assumptions that underlie each model, and discuss how instructors can practically use each of the models in the formal setting of the classroom.

Although Merriam and her colleagues do not go into the minute detail of experiential learning to identify and describe the multiple teaching approaches that could be used as experiential learning, college of business faculty members are familiar with such experiential learning approaches as the case method (e.g., Christensen, Garvin, & Sweet, 1991; Christensen & Hansen, 1981/1987; McNair, 1954; Towl, 1969), discussion or conversational learning (e.g., Baker, Jensen, & Kolb, 2002; Brookfield & Preskill, 1999), team learning (Michaelsen, Knight, & Fink, 2002), service learning (see the special issue of the *Journal of Management Education*, 2010, *34*(1)), presentations, simulations, and field, laboratory, and research projects. All of these might comfortably fit into a wider descriptive category of active learning processes (e.g., Bonwell & Eisen, 1991; Meyers & Jones, 1993). The point is that there are a multitude of learning approaches just within the experiential learning model and an even wider range of adult learning models and theories that can form the basis of a pedagogically diverse and competent repertoire for any instructor, new or seasoned.

Knowles, Holton, and Swanson (1998) take the position that andragogy presents the core principles of adult learning, whereas pedagogy has its etymological roots in child and juvenile learning. Knowles et al. (1998) cite Lindeman (1926) to address the issue of who is an adult learner. Lindeman's five assumptions are the basis for most of what Knowles and his colleagues use throughout their book:

- Adults are motivated to learn as they experience needs and interests that learning will satisfy.
- Adults' orientation to learning is life-centered.
- Experience is the richest source of adults' learning.
- Adults have a deep need to be self-directing.
- Individual differences among people increase with age.

Knowles and his colleagues go on to develop their six principles of andragogy:

- The learner's need to know.
- The self-concept of the learner.
- The prior experience of the learner.
- The readiness to learn.
- An orientation to learning.
- A motivation to learn.

These principles work best when they are adapted to the uniqueness of the learner and the learning situation. This is a transactional or process model of learning in that it focuses on the characteristics of the process, not the goals and aims of that process.

At the same time, instructors should be aware that students learn or prefer to learn differently and are not all at the same stage in their learning development. There are numerous learning style models available (for reviews, see Coffield, Mosley, Hall, & Ecclestone, 2004; Hawk & Shah, 2007). For example, there is Kolb's (1984) model built on the concrete/abstract and active/reflective dimensions, Gregorc's (1985) model built on the concrete/abstract and sequential/random dimensions, Fleming's (2001) model of Aural, Visual, Read/Write, and Kinesthetic learners, and the Approaches to Studying model (Entwistle, Hanley, & Hounsell, 1979; Entwistle & Tait, 1995) with its Deep, Surface, and Strategic learners. The diversity of learning style models offers numerous ways in which an instructor can view the ways students learn.

In a related stream of research, Perry (1970), Belenky, Clinchy, Goldberger, and Tarule (1986), Baxter Magolda (1992, 1999), and Kegan (1994) address the issue of learning development stages, particularly in higher education (for a review see also Richardson, 2013). Baxter Magolda (1992) has developed a sequential four-stage model of Absolute Knowing, Transitional Knowing, Independent Knowing, and Contextual Knowing, built on both female and male students in higher education. The important point to take from this research is that faculty members should not assume that all of their students are at the same stage of their learning development.

To integrate these issues, faculty members should develop a repertoire of learning activities that go well beyond just the passive lecture mode and embrace active and experiential learning processes in order to match the learning activities and the learning assessments with the learning goals, the diversity of learning styles and preferences of their students, and where they may be in terms of their learning development stages. It is also important for the faculty member to understand where his or her own learning preferences might lie and to work creatively with the enrollment profiles of the courses. Courses where the enrollments are high and the learning goals fall into the first two levels of Bloom's Taxonomy lend themselves to a higher but not exclusive use of lectures and machine-gradable assessments. On the other hand, those courses with lower enrollments and that offer learning goals that fall into the last four dimensions of Bloom's Taxonomy should necessitate learning activities that actively engage the students in their own learning processes and provide the opportunity for student-constructed assessments and instructor feedback, the topic of the next section.

ASSESSMENTS AND FEEDBACK

At the outset, it is important to clarify the distinction between assessment and grading. Assessment is the "means" or "activity" by which an instructor tests the degree to which the student has met the learning goal or objective. Grading is the "measure" of how well the student performs on the assessment.

As previously indicated (Arter & McTighe, 2001), assessments can be selected-response assessments or constructed-response assessments. However, assessments should fit the character of the learning goal or task as well as the where the

learning goal falls within the taxonomies offered by Bloom (1956) and Anderson and Krathwohl (2001). There is also the issue of class size, where large course enrollments may limit the choices of constructed-response assessments but not the creativity of the instructor.

When the learning goal falls within the Remember and Understand taxonomical dimensions, it is reasonable to use selected-response assessments (multiple choice, true/false, fill-in the blank, matching, short answer, etc.). Selected-response assessments fit with larger class sizes and courses such as those that are introductory or early in a program where the learning is usually knowledge oriented and vocabulary is developing. It is also possible to craft some selected-response assessments that work well in the Apply and Analyze categories if the instructor remains alert to the possible ways in which students can make mistakes and includes those error-driven responses in the response selection profile.

In general, however, assessments for learning goals that fall into the top four taxonomical categories of both Bloom's Taxonomy and Bloom's Taxonomy Revised should be constructed-response assessments (problems, quantitative and financial analyses, essays, case analyses, research projects, field projects, presentations, demonstrations, discussions, role plays, etc.). In order for the students to have a reasonable opportunity to learn and succeed in these assessments, there should be a quality feedback and evaluation rubric, the opportunity for students to practice and engage in guided practice and scaffolded learning (see earlier citation of Goldstein, 1999, and Pea, 2004, and earlier explanations), and constructive developmental feedback on which the student can build a corrective response. That means the instructor needs to develop some good feedback skills.

According to Hattie and Timperley (2007), feedback must address three questions:

- What are the goals or in what direction am I going?
- What progress am I, the learner, making toward that goal or how am I doing?
- What do I need to do to make more progress or where do I go next?

Using the feedback, students can make progress by focusing their attention, increasing their effort, developing effective error detection skills, constructing better strategies to achieve the task goal, and/or collecting more and better information for problem solving. In turn, instructors can help students achieve their learning goals by providing appropriate and challenging learning goals, making learning goals and performance level expectations clear by providing well-developed evaluation and feedback rubrics, using scaffolding and guided practice (Goldstein, 1999; Pea, 2004) to make goals more manageable, providing a safe environment in which to learn, and providing constructive developmental feedback.

Feedback (Hattie & Timperley, 2007) can focus on a task or output (task feedback) and on the process used to accomplish the task or output and for error detection (process feedback). Feedback that encompasses both task and processes is more effective.

Feedback can be formative or summative. Formative feedback (Shute, 2008, p. 153) is "information communicated to a learner that is intended to modify his or her thinking or behavior for the purpose of improving learning" and occurs as the learning is taking place. However, feedback that has a negative impact on the learning process or on the learner's learning development is not formative in character. Summative feedback is information and evaluation communicated to a learner at the completion of a learning process about how well the learner has met the standard for the learning goal.

Shute (2008) also discusses two primary functions of formative feedback: directive and facilitative. Directive feedback lets the student know where the gap occurs between the learning goal and the student's performance. Facilitative feedback offers suggestions and hints to help the student in revising and changing the knowledge or performance.

What can the instructor do to significantly enhance the likelihood that the student will be receptive to and actually use the feedback provided by the instructor? This concerns the character of the feedback given by the instructor. Butler and Winne (1995) describe five functions that feedback can serve to fine-tune the student's understanding or performance:

- To *confirm* a student's understandings/beliefs and congruence with course objectives.
- To *tune* a student's understandings and use as basically correct.
- To *add* information if the student has only partial information.
- To *replace* prior knowledge that is incorrect or inappropriate.
- To *restructure* incompatible theories and models.

And Hattie and Temperley (2007) pose three conditions necessary to allow students to benefit from feedback:

- They possess a concept of the goal/standard or reference level being aimed for.
- They can compare the actual level of performance with that of the goal/standard.
- They can engage in appropriate action that leads to some closing of the gap.

The first two bullets here are connected to the use of feedback and evaluation rubrics, while the last depends on good feedback.

So, what does effective feedback look like? We have integrated and summarized the recommendations for effective feedback as offered by Hunsaker (1983), Michaelsen and Schultheiss (1988), Butler and Winne (1995), and Juwah et al. (2004) in Table 5. Some excellent suggestions for feedback on team and group assessments are available in Michaelsen, Knight, and Fink (2002) and at www.teambasedlearning.org. Feedback that follows these guidelines can go all the way from

TABLE 5
The characteristics of useful feedback (Hunsaker, 1983; Michaelsen & Schultheiss, 1988)

It should be *descriptive*, not evaluative.
It should be *specific*, not general.
It should be *timely*, and in context of the activity.
It should be *relevant* to the specific situation and receiver.
It should be *usable* for action the receiver controls.
It should be *sufficient in amount*, not overwhelming.
It should be *desired*, not imposed.
It should be *explorative* of alternatives.
It should be *well-framed*, that is, supportive and respectful.

handwritten feedback uniquely tailored to each student and his or her performance on an assessment, whether for practice or the end product, to a printed rubric on which the instructor circles or underlines those parts of the performance description that have been met or writes comments on the rubric. In this way, the instructor can tailor feedback to class size and to personal taste.

To conclude this discussion of assessments and feedback, it is important to note that while the focus on feedback here has been for constructed-response assessments, Black and Wiliam (1998) indicate that a significant majority of undergraduate faculty choose selected-response assessments and bypass the opportunity for any meaningful feedback on the assessment. However, Stark (2006) describes his use of group exams after the completed individual examinations as a way of using peer feedback to enhance student learning with selected-response assessments.

CONCLUSION

This article has offered an integrated model of the teaching/learning processes and course design that the authors believe can be a useful starting point for long-term pedagogical or andragogical development by new and seasoned faculty members in order to become more scholarly teachers (Dehler, Beatty, & Leigh, 2010; McKinney, 2007). That model encompasses:

- The choice and design of the course learning goals and objectives (Mager, 1997) as informed by Bloom's Taxonomy (Bloom, 1956) and Bloom's Taxonomy Revised (Anderson & Krathwohl, 2001).
- The translation of those goals into feedback and evaluation rubrics (Arter & McTighe, 2001; Stevens & Levi, 2005; Tierney & Simon, 2004) for selected-response and/or constructed-response assessments.
- The selection of appropriate learning activities, including activities for guided practice and scaffolding (Goldstein, 1999; Pea, 2004), for the adult learner (Cross, 1992; Knowles et al, 1998; Merriam et al., 2007) and informed by the diversity of student learning styles, learning stages, and the characteristics of adult learners.
- The choice of appropriate assessments with an emphasis on constructed-response assessments accompanied by effective feedback (Hunsaker, 1983; Juwah et al., 2004; Michaelsen & Schultheiss, 1988).

There have also been discussions of issues of context, particularly as it applies to class size, placement of a course within a program, and instructor competency. The appendix offers a more compact list of recommended readings by topic.

There are three additional contextual issues that warrant discussion. The first focuses on the temporal character of course design and teaching, both within the common unit of the semester and over a longer period of years. The second examines the instructor as a learner who is always "in process." The third asks faculty to consider developing a philosophy of teaching/learning.

Each course in a given semester or quarter ends up being unique in several ways. The mix of students and the dynamics among those students and with the instructor change as the students get to know both the instructor and the content of the course and the instructor becomes more knowledgeable about the students. Unexpected turns in the class dynamics are not uncommon, opening the opportunity for valuable learning by both the students and the instructor. As the students "mature" within the course and as the instructor matures with them and about them as learners, faculty members should be open to ways in which they can revise the course content, materials, and learning activities, even in midstream, to improve the learning. This is particularly important where exploration of a content domain is a course goal. Students can be a valuable source of new ideas, and the faculty member can frequently see new ways to make the course better. In a way, what is happening is the equivalent of formative evaluation research (Legge, 1984; Shute, 2008) on the course learning processes. Faculty members should use this dynamic and spontaneous learning process as a course unfolds for all it is worth. Both authors have made numerous incremental changes in their course design and pedagogical processes and competencies as a result of the "aha" moments that unexpectedly emerge. And this could lead to a transformational change in pedagogical philosophy, as was the case for one of the authors.

Over the longer term, if the faculty member actively engages in pedagogical development, including continually reading in and doing research on the scholarship of teaching and learning as well as engaging in pedagogical workshops, the accumulation of exposure will surely have a beneficial impact on course design, the choice of learning activities, the competence and repertoire of the faculty member, and the effectiveness of the learning taking place in the course.

Faculty ongoing pedagogical development leads to the idea of the instructor as a dynamic learner (Rodriguez, 2012) over

time. From course to course and even from class session to class session, the instructor is never the same person, nor are the students. Each encounter, each personal engagement results in some learning and some change. The learning of both the students and the instructor can be informed by recent emergent research from the new interdisciplinary field of mind, brain, and education (Rodriguez, 2012; Tokuhama-Espinosa, 2010a, 2010b). The brain remains plastic throughout the entire human life span (Damasio, 2010; Schwartz & Begley, 2002). Therefore, any assumption that the brain, whether that of a student or that of an instructor, is fixed in what it can learn is not tenable. Experience (Dewey, 1938/1998), practice, and repetition are the central processes of strengthening the neuronal connections for more effective and longer lasting learning. And the emotional centers of the brain are integrally connected to and involved with all of the conscious cognitive activities of the brain (Damasio, 1994; LeDoux, 1996, 2002; Zull, 2002), rendering "rationality" a questionable assumption at best, and a dangerous one at worst. These three central tenets of the mind, brain, and education field can inform the choices of a faculty member in each of the phases of the model offered for consideration in this article. It is important to actively engage in experiential learning activities that resonate with the interests of the students and with the instructor. It is important to offer both the opportunity for practice with feedback. It is important to give the students and yourself the opportunity to engage in the performance again. All of these resonate positively with both the plasticity concept and the strengthening of the neuronal connections, and hence the emphasis on constructed-response assessments. Lifelong learning is unavoidable for both the student and the faculty member, whether new or seasoned, but it can be cultivated and constructively managed. Again, the appendix offers a highlighted reading list for that learning.

Building a teaching/learning philosophy, including an ethical posture, is also an important task for both new and seasoned faculty (Beatty, Leigh, & Lund Dean, 2009). What assumptions and values underlie the activities of a faculty member? How do they influence the choices in learning goals and learning activities? What assumptions underlie the theories and models offered to the students? Is there effective and ongoing critique of those theories and models and of the faculty member's own teaching/learning philosophy? What is the nature of the ethical posture that the instructor wishes to model to his or her students? It is an ongoing process (an assumption) to continually build and critically examine both one's teaching/learning philosophy and the content of what one teaches.

The authors hope that newly hired full-time instructors, and perhaps more seasoned faculty members, will find the model presented here to be understandable, useful, and appealing. If not, then find a different path to building an integrated model—and borrow shamelessly everywhere—and be creative. Whatever the case, the authors hope that every faculty member will find the passion for teaching and learning (Palmer, 1998) and develop into a great teacher (Bain, 2004) as well as a scholarly teacher (Dehler, Beatty, & Leigh, 2010; McKinney, 2007; Weimer, 2006).

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APPENDIX: AN ESSENTIAL FACULTY READING LIST

Learning Goals, Objectives, and Bloom's Taxonomy

Anderson and Krathwohl (2001)
Bloom (1956)
Mager (1997)

Learning Goals Into Rubrics

Arter and McTighe (2001)
Stevens and Levi (2005)
Tierney and Simon (2004)

Choice of Learning Models and Activities

Bonwell and Eisen (1991)
Cross (1992)
Knowles, Holton, and Swanson (1998)
Merriam, Caffarella, and Baumgartner (2007)
Meyer and Jones (1994)

Assessment and Feedback

Hattie and Timperley (2007)
Hunsaker (1983)
Michaelsen and Schultheiss (1988)
Pea (2004)
Rodriguez (2013)
Shute (2008)
Tokuhama-Espinosa (2010a, 2010b)

Scholarship of Teaching and Learning

Bain (2004)
Boyer (1990)
Dehler, Beatty, and Leigh (2010)
Glassick, Huber, and Maeroff (1997)
Kleber (2001)
McKinney (2007)
Palmer (1998)
Weimer (2006)

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