Matrix on Virtual Teaching: A Competency-Based Model for Faculty Development

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Abstract: This model integrates the outcomes of a prior study of best practices for effective teaching in the online environment. This competency-based model expands emergent themes within the best practices and employs a generative approach to developing faculty as adult learners and builds on their existing knowledge encouraging further inquiry.

Introduction

As the number of undergraduate adult students enrolling in online programs and courses continues to increase, so does the demand for quality instruction (National Center for Education Statistics [NCES], 2005; Sloan Consortium, 2005). Despite the proliferation of online courses and programs, there are few studies on what constitutes effective teaching and learning in the online learning environment (Newlin & Wang, 2002). Research shows that most faculty in higher education have not had any courses in college teaching let alone any preparation for their role as a facilitator/instructor in an online environment (Bates, 2000). Many full-time and pre-tenured faculty are reluctant to teach online for a variety of reasons. Those who agree to teach online do so without the benefit of formal development, so enter the agreement with the misconception that all they need to do is transfer their lecture notes to the institution's online delivery system. Moving from the traditional classroom to the online environment demands a new way of thinking about teaching and requires a skill set that is significantly different from the chalk and blackboard way of teaching (Levy, 2003; Palloff & Pratt, 2001).

To meet the adult learner's growing demand for online courses and programs, many institutions are hiring more part-time faculty to teach online. The increasing use of part-time faculty prompts the need for formal processes to develop web-based teaching skills as well as to clarify institutional expectations for online course development and delivery (NCES, 2005; Sloan Consortium, 2005). To engage part-time faculty and enhance their ability to teach adult learners in the online environment, institutions must design development activities that are comprehensive and convenient for faculty who teach at a distance.

The focus of this paper is to describe an integrated model of online faculty development, informed by the best practices of adult undergraduate education and based on theories of adult learning. This competency –based model provides opportunities to acquire knowledge, master skills and practice techniques to improve online teaching and encourage behaviors that influence adult student engagement, retention and learning. Recommendations for implementation and adaptability of the model to different institutional and faculty needs are proposed.

The first section provides the background for the development of the model using results of previous studies. The second section summaries the characteristics of faculty as adult learners and considers the implications of adult learning theory for faculty as well as adult students in the online environment. The third section describes seven competencies for teaching online which, when mastered and applied, cut across a matrix of identified best practices and emergent themes. The final section discusses the implications for practice and future development of online faculty.

Background

Wilkes and Burnham (1991) reported that good online teaching practices are fundamentally identical to good traditional teaching practices and that factors that influence good instruction may be generally universal across different environments and populations. However, moving a course online requires new ways of thinking about teaching and learning (Bates, 2000). Palloff and Pratt (2001) suggest that moving to the online environment requires the acquisition of teaching strategies and skills beyond those needed in the traditional classroom.

Phipps and Merisotis (2000) identified 21 benchmarks to ensure "quality learning" in web-based education, emphasizing technology skills to development, delivery and evaluate distance courses. In 2005, Smith, published a complex list of 51 competencies needed to teach online and outlined a training program for faculty.

A study utilizing Chickering and Ehrmann (1996) "Seven Principles of Good Practice in Undergraduate Education" as they apply to online education examined benefits and outcomes of distance learning for adults and identified best practices in design, implementation and evaluation of online learning environments (Grant & Thornton, 2007). Quantitative and qualitative methods used in the study, uncovered themes and patterns within the best practices for teaching and learning that, when expanded provided a framework for producing quality instruction for adults in online environments (Grant &Thornton, 2007).

The results of that study are used to shape a model of online faculty development that expands those themes into seven competencies for online teaching. This model also integrates faculty characteristics and patterns of instruction with adult learning theory.

Faculty as Adult Learners

Moore and Kearsley (1996) wrote that the more one understands andragogy and the assumptions of adult learning, the better one will understand the nature of distance learning and hence, the advantage of learning technologies (p. 153). Consequently, various adult learning theories and philosophies influenced the development of this matrix on virtual teaching: Knowles' (1980) assumptions of adult learners, Dewey's (1938) thoughts on experience and education, and Candy's (1991) work on social constructivism.

More than eight decades ago Lindeman (1961) wrote, "the approach to adult education will be via the route of situations, not subjects . . . the curriculum is built around the student's needs and interests" (p.6). Consequently, one may argue that a competency-based program in faculty development is in contrast with student-centered learning. However, because experienced faculty identified the content they defined the standard of practice and the curriculum. Lawler and King's (2000) work supports the writings of Knowles. Faculty as adult learners know what they need to learn, want to learn it for specific purposes and in a timely manner. This program engages the faculty allowing them to process content based on known best practices. It meets the meaning-centered learning perspective of constructivism. As faculty actively progress

through the content material they are in essence, making connections between past learning of teaching techniques for effective learning and current content for the context of their teaching online. They apply and reflect on the content they select, share their thoughts with peers, and form new meanings in a real life context.

Competency-Based Model for Teaching Online

Essentially this is a competency-based model with measurable objectives, criteria and a process for evaluation. The competency-based approach starts with a systematic and collective consensus of what the online instructor needs to know that is valid and important for teaching effectively online. It also introduces mechanisms that encourage understanding and mastery that will flourish and endure throughout future faculty roles. Additionally a generative approach to developing faculty, as adult learners, builds on prior knowledge and encourages further inquiry. The online delivery of the model itself promotes recursive and reflective learning which extends the instructor's teaching and social presence from the traditional classroom to the online environment.

This comprehensive model integrates seven basic competencies with specific teaching and organizational requirements that cut across benchmarked best practices within emergent themes. The seven competencies are presented in a matrix with the best practices and themes to visually illustrate the cross cutting nature of the design (see Table 1.).

Table 1. Competencies and Best Practices for Online Teaching

THEMES:		Course Design		Instructor Effectiveness			Course Management	
		B E S T P R A C T I C E S						
C		Cooperation 2	Time on Task 5	Communi-cation 1	Expecta-tions 6	Active Learning 3	Feedback 4	Respect for diversity 7
O	Understand Online Format		X	X	X			
M	Know Online Pedagogy	X	X	X	X	X	X	X
P	Develop Course Content		X	X	X			
E	Understand Instructional Design	X				X		X
T	Determine Course Management		X	X	X		X	
E								

N C	Practice Use of Technology: Functionality and Usability			X				X
I E S	Develop Quality Assurances	X		X	X		X	X

Competencies

Competencies were identified and expanded to encompass the emergent themes of course design, instructor effectiveness and course management within best practices. Competencies are presented in seven learning modules in a self-directed online faculty development course. Each learning module expands the basic competencies with detailed illustrations, examples and practice activities matching competencies with online teaching best practices. As faculty move from one competency nodule to another they are able to discuss their experience and share ideas with other faculty in the course. The discussion forum becomes a means of peer review and support as well.

To master the elements of course design, faculty must understand the online environment, Competency # 1, in which they will develop, Competency #3, and deliver their course content, and understand online pedagogy, Competency #2, in order to incorporate it into their teaching philosophy and style. The first three modules incorporate information and outline activities for:

- Understanding the online medium
- Understanding online pedagogy
- Understanding teaching and social presence
- Belief in the outcomes
- Developing connections
- Writing a syllabus
- Building course content

To facilitate and maintain instructional effectiveness , faculty must master the task of designing, Competency #4, a course which incorporates web-based instructional design elements and maximizes the use of the Internet, as well as master the components of the course Learning Management system, Competency #5, to help students navigate the course successfully. Competency # 4 and # 5 modules include information and provide activities for:

- Presenting course content
- Respecting different learning styles
- Using web-based resources
- Designing active and collaborative learning activities
- Communicating time commitments
- Managing course data, inputs and outputs

In addition, faculty must be able to master and practice the use of appropriate technology to meet course goals and improve student learning outcomes, Competency #6. This involves developing the skills to evaluate functionality and usability of the web and course delivery

system. Finally, faculty must learn to identify and practice methods of quality assurance and develop attitudes that respect the evaluation process, Competency # 7.
Modules for Competencies #6 and # 7 include information and activities for:

- Identifying appropriate technology
- Using media elements of design
- Accessing support for technology
- Developing rubrics and standards
- Understanding methods of evaluation
- Exploring opportunities for peer review

This model provides faculty a flexible, convenient way to learn with time to process each competency, and then apply best practices as appropriate to their own course design. Faculty can also assess their understanding and mastery of each competency through a process of online peer review. These competencies serve as the bridge between face to face and online learning practices. Their mastery results in a skill set that not only extends learning in the traditional face to face classroom, but also improves it in the future.

Discussion

This model draws on a number of areas and concepts in adult education as it focuses on the faculty member as an adult learner. The use of active learning that incorporates reflection and techniques that build on prior knowledge are based in adult learning theory. This model for developing online teaching skills, though competency-based, requires generative learning, hence a constructivist approach. As faculty recognize the cross cutting nature of these competencies with best practices, they construct applications of these practices through a wider lens. Application of learning creates relevancy for adult learners as for faculty in this process. This model sets a standard of excellence for online instruction that is comprehensive and specific to self-directed adult learning. The experienced change in teaching paradigm leads to transformative learning.

Teaching online becomes a transformative exercise in overcoming the limits of face to face communication and expands student engagement and learning through a different learning space. The line between teaching and facilitating is blurred when the student becomes the focus of the learning space. Meeting the student where they are in their learning process is key to effective teaching and the point where learning begins. The place where facilitation and connectivity meet is the online learning community. The competencies of online teaching mastered through this model integrate the elements of course design, delivery and management and remain informed by these patterns of connectivity and interconnectivity. Community is established among students and between students and instructor when the online experience becomes purposeful and recognizes the contributions of the learner.

Implications for Use and Future Studies

A competency-based model for online teaching can be adapted for use in any institution willing to provide support and funding to implement the model. It seems a small price to pay to develop faculty who teach at a distance to enhance teaching effectiveness and improve student learning in online environments. In the long term student satisfaction with their experience will increase retention and enrollments in subsequent online courses and programs. As institutions

become more vested in distance education and demand standards of excellence in delivering online learning, it seems reasonable to expect that faculty awards and recognition for the mastery of online teaching be tied to promotion and tenure.

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