

An Experiential Learning Model of Faculty Development to Improve Teaching

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Abstract

This article introduces a model for faculty professional development. The National Research Council (2009) indicated that graduates of colleges of agriculture must be prepared to work in a complex world using skills such as critical thinking, problem solving, teamwork, and leadership. However, critics of higher education have insisted that many college graduates do not possess these desired skills and are increasingly underprepared to enter the workforce. To help better prepare students, instructors should focus on effective teaching strategies that engage students and promote learning. However, most faculty members are hired for their expertise in research and have little preparation in pedagogical techniques. Therefore, faculty development programs that teach instructors effective instructional methods are necessary. This article proposes an experiential learning model of faculty development, which consists of three stages, including planning, delivery, and evaluation. The model utilizes field experiences, reflection, and peer observation to help college instructors learn how to implement and use various instructional methods. The experiential learning model presented in this paper could help college of agriculture instructors become more effective in their teaching, thus meeting the call to improve undergraduate learning.

Introduction

The world around us is rapidly changing. Increasing globalization of businesses, constantly changing technologies, and a continually growing world population are a few of the issues we face (National Research Council, NRC, 2009). Moreover, in the midst of these concerns, we face the unique challenges of climate change, creating renewable energies, and feeding the increasing population (NRC, 2009). To combat these and other issues, we will need

highly educated leaders, scientists, and a workforce capable of thinking critically and solving the complex problems faced by society.

The burden of preparing this next generation of leaders, scientists, and workers for the challenges that lie ahead rests on the shoulders of America's colleges and universities (NRC, 2009). The key to solving society's problems will be the human capital that colleges and universities produce, that is, graduates entering the workforce (NRC, 2009). The Kellogg Commission (2000) dubbed this "the promise of American public higher education" (p. 9). Namely, higher education has an obligation to serve as the bridge between the public and the knowledge needed to solve complex issues (Kellogg Commission, 1999). Therefore, the question that must be asked is, are college graduates being adequately equipped for the challenge?

Many believe college graduates are not prepared for the future and have insisted on changes in undergraduate education (Barr and Tagg, 1995; Bok, 2006; Boyer, 1990; National Commission on the Future of Higher Education, 2006; NRC, 2009). The NRC (2009) called for changes in the way undergraduates are taught, citing specifically global integration, new science, consumer influence, environmental concerns, and demographic and political shifts as factors contributing to this need. In 2006, The National Commission on the Future of Higher Education suggested that American college students are receiving a substandard education, while Bok (2006) opined that universities cannot continue to rely on methods that have worked in the past, but need to place greater importance on innovation and educational quality. Both the National Commission on the Future of Higher Education (2006) and the Association of American Colleges and Universities (2002) proposed that graduates are underprepared for the workforce, lacking skills such as writing, critical

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thinking, and problem solving. These claims are compelling and highlight the need to change the way undergraduates are educated.

The most appropriate place to start looking at how to transform undergraduate education is to examine teachers. McLaughlin et al. (2005) argued that teachers are the link between the student and the content to be learned. What is more, the teacher's primary role is to engage students with the information they are learning (Smith et al., 2005). Effective postsecondary instructors have been found to utilize techniques to help students engage with the material and reach higher levels of achievement (Pascarella and Terenzini, 1991). Research has shown that student-centered teaching strategies, such as use of active and experiential learning activities, are critical to student learning in the classroom (Barr and Tagg, 1995; Chickering and Gamson, 1987; McKeachie, 2002). Therefore, it is important to focus on the quality and type of teaching strategies to help improve the learning of undergraduates.

In light of this, one may suggest that the solution to the problem is to hire professors who are highly qualified in their teaching. However, this proves problematic as the majority of faculty members at colleges and universities are hired on the basis of their proficiency in research as opposed to teaching (Adams, 2002; Harder et al., 2009). Boyer (1990) proposed that teaching is typically viewed by most in universities as a simple routine task that can be easily mastered. As a result, most faculty members are hired into positions where the tenure and promotion policy hinges on research performance while placing little consideration to the teaching aspect of the profession (Harder et al., 2009). The irony is that institutions of higher education are meant to be places of learning, but there has been a lack of emphasis on teaching (Harder et al., 2009).

Consequently, faculty professional development programs in the area of teaching are a necessity in colleges and universities (Myers and Roberts, 2004). Brent et al. (1999) agreed that professional development programs are a sufficient way to help newer faculty transition into the professorial role. Supovitz and Turner (2000) summarized the need for faculty professional development in teaching, stating "The implicit logic of focusing on professional development as a means of improving student achievement is that high quality professional development will produce superior teaching in classrooms, which will, in turn, translate into higher levels of student achievement" (p. 965). To bring about these types of changes, faculty development programs must be effectively

implemented. In line with this, the Association of Public and Land-grant Universities (2009) suggested that programs need to be based on research in teaching and learning to improve the effectiveness. The Kellogg Commission (1999) additionally suggested that faculty development programs need to be implemented using active learning strategies. Finally, Schlager and Fusco (2003) stated that faculty professional development must be context-specific, learner-focused, and have practical applications for teachers.

Purpose

The purpose of this philosophical article was to propose a solution to the aforementioned problems by creating a faculty professional development model based on the experiential learning process that could be implemented by faculty professional development organizers. This model specifically focuses on a method to promote the development of effective teaching among university faculty members.

Theoretical Framework

The overarching theoretical framework for this study was constructivism. Constructivist theory posits that people learn through a process of constructing meaning utilizing their prior knowledge combined with their experiences (Merriam et al., 2007). Differing views of constructivism exist; however, there are three analogous tenets among the various views (Doolittle and Camp, 1999). The first of the three tenets is that active cognitive processing is required by the learner. McLaughlin et al. (2005) posited that learners must be actively, mentally engaged in the learning process for meaningful learning to occur. Secondly, all knowledge construction requires an interpretation of reality (Doolittle and Camp, 1999), whether knowledge construction is adherence to existing realities, creation of realities by the learner, or socially constructed realities. Lastly, experiences are a key element of constructivism. Roberts (2006) indicated that student engagement in experiences plays a vital role in students' knowledge construction. The combination of the three aforementioned tenets of constructivism provides a good base for experiential learning, which will be discussed in the next section.

Conceptual Framework

Many theorists have suggested that all learning begins with an experience (Dewey, 1938; Jarvis, 1987; Kolb, 1984). This process of learning from experiences is typically referred to as experiential learning and is epistemologically linked to constructivism because experiences provide the foundation for knowledge

construction (Roberts, 2006). Beard and Wilson (2006, p. 2) defined experiential learning as “the sense making process of active engagement between the inner world of the person and the outer world of the environment,” while Kolb similarly called experiential learning “the process whereby knowledge is created through the transformation of experience” (1984, p. 41). Additionally, Dewey argued people learn best when experiences are meaningful and directed. Experiential learning theorists agree that experiences are central to the learning process.

As a result, Roberts (2006) examined several existing experiential learning theories to create the Model of the Experiential Learning Process (Figure 1). In his model, Roberts posited the experiential learning process is cyclical and starts with an initial focus leading to an initial experience. After learners have their initial experience, the second phase is reflection, where through active cognitive processes learners reflect on their initial experience. Generalization is the third step in the experiential learning process, whereby learners must make an interpretation of the newly learned material and decide how this information fits with previously learned information. The cycle then comes full circle back to experience, where learners can experiment with the newly learned material.

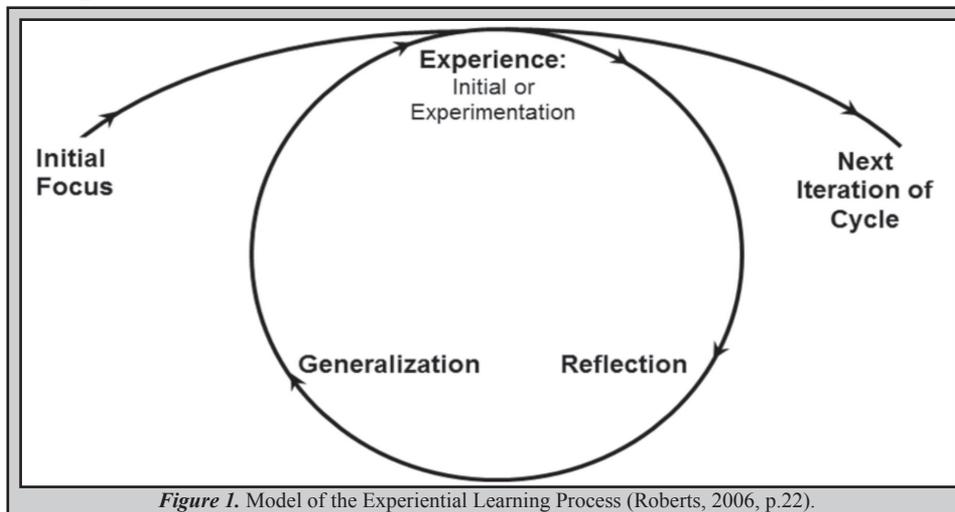


Figure 1. Model of the Experiential Learning Process (Roberts, 2006, p.22).

Development of the Experiential Learning Model of Faculty Development in Teaching

For the purpose of this article, which was to create a model for faculty professional development based on the experiential learning process, Roberts’ (2006) Model of the Experiential Learning Process was merged with the Adult Learning Model for Faculty Development developed by Lawler and King (2000). The resulting faculty development model was named the Experiential Learning Model of Faculty Development in Teaching.

Because student engagement and achievement depend upon effective teaching strategies (McKeachie, 2002), the purpose of the Experiential Learning Model of Faculty Development in Teaching is to introduce instructional methods to faculty members who are inexperienced and/or desire to improve their classroom instruction. Understanding instructional strategies and methods is an important part of improving classroom instructional performance. In fact, Wilkerson and Irby (1998) argued that instructional skills should be introduced before instructional theories. The purpose of this is so faculty members can hone their skills, thus giving them a practical base on which they can connect the theory. More importantly, Myers and Roberts (2004) argued that faculty professional development should model the teaching methods being taught, because, as Richardson (1990) suggested, teachers tend to model their teaching behaviors after the way they were taught. It is for this reason that experiential learning was chosen as the conceptual framework for this model. Experiential learning provides faculty members with opportunities to experience and experiment with different teaching methods, which according to Richardson, should lead to greater skill development in teaching.

Along with Roberts’ (2006) model, the Lawler and King (2000) model was chosen as a component of the Experiential Learning Model of Faculty Development in Teaching, as it provides a good complement to experiential learning. Lawler and King believed that individuals responsible for faculty development seldom view faculty members as adult learners. Therefore, Lawler and King (2000) framed their Adult Learning Model for Faculty Development around the following six principles of

adult learning: “create a climate of respect; encourage active participation; build on experience; employ collaborative inquiry; learn for action; and empower the participants” (p. 21-22). These principles in Lawler and King’s model align well with the precepts of constructivism and experiential learning, thus making their model a logical choice.

In addition to being constructed around adult learning principles, the Lawler and King (2000) model also contains four stages, consisting of preplanning, planning, delivery, and follow-up. Lawler and King created a list of pertinent questions for the professional

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development organizer to ask at each stage of program development. The questions are designed to help guide the creators of the professional development program through the planning process.

The first stage of Lawler and King's (2000) model is the preplanning stage. Here, the goals, needs, and climate of the organization are accounted for and the direction of the faculty development is determined. The pertinent questions posed by Lawler and King for the preplanning stages are:

- What overall purpose does faculty development serve?
- What purpose does this specific faculty development program serve?
- In what ways does the institution's mission align with this faculty development?
- Are there existing resources to support faculty development?

These four questions should help guide the organizers of faculty development in shaping the purposes and direction of their professional development program.

Lawler and King's (2000) second stage is the planning stage, which deals with the logistics of faculty development. The pertinent questions associated with the planning stage are:

- What steps will this faculty development project require?
- What personnel will be needed?
- How will the support, delivery, scheduling, and marketing for the faculty development be organized?

These questions should help planners with the organizational and logistic aspects of planning faculty professional development.

The third stage of the Lawler and King (2000) model is the delivery stage. This stage is concerned with the actual implementation of the professional

development program. There are four questions Lawler and King posed pertaining to this stage:

- Does the delivery stage build upon the preparation?
- What means of promoting the program are most useful?
- Does our faculty development align with adult learning principles?
- What method of monitoring the faculty development will be used?

Finally, the last stage of the model is the follow-up stage. This stage is where concerns are addressed, considerations for future faculty development are made, and reflection on the entire process is conducted. Pertinent questions for planning this stage include:

- What is the plan for evaluating the faculty development program?
- How will ongoing support be provided to sustain the learning?
- What can be gained from reflecting on our role in the faculty development?

The Experiential Learning Model of Faculty Development in Teaching (Figure 2) utilizes Lawler and King's (2000) model to frame the programming aspects of the faculty development, while Roberts' (2006) experiential learning model is implemented during the delivery portion. The remainder of this article will discuss in detail the Experiential Learning Model of Faculty Development in Teaching.

Planning Stage

The first phase of the Experiential Learning Model of Faculty Development in Teaching is the planning stage. For this portion of the model, the preplanning and planning stages of the Lawler and King (2000) model have been condensed. The reason for this is that the context of the experiential learning model

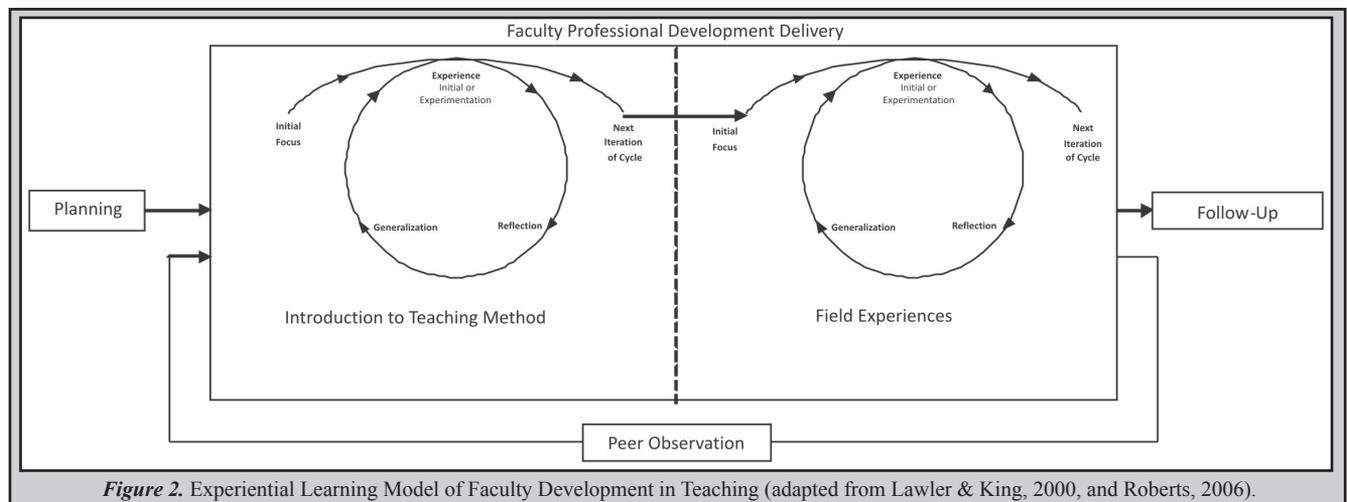


Figure 2. Experiential Learning Model of Faculty Development in Teaching (adapted from Lawler & King, 2000, and Roberts, 2006).

(e.g. teaching and learning) answers the first two preplanning questions, thus eliminating the need for the preplanning stage. What is more, the concept of teaching improvement in a university should address the third question concerning the mission of the organization. The last preplanning question in relation to resources is important and should be considered very early in the process, because resource availability will guide many later decisions. Likewise, the three additional planning stage questions of what will happen, who will be involved, and how to organize are important to the planning process. However, the answers to these questions will be institution specific, depending on the direction of the faculty professional development.

Delivery Stage

The second stage of the Experiential Learning Model of Faculty Development in Teaching is the delivery portion. This is where Roberts' (2006) Model of the Experiential Learning Process is implemented. The delivery phase is designed with the intent of the experiential learning component taking place over several sessions as opposed to one long session. This provides the faculty development participant multiple experiences and experimentation with specific teaching methods, congruent with the cyclical nature of Roberts' (2006) model. Moreover, research has shown that professional development is more effective if it takes place over a longer duration (Birman et al., 2000; Garet et al., 2001; Supovitz and Turner, 2000).

During the delivery stage, the specific instructional methods taught will be determined by the faculty development planners, and the instruction should be planned to fit the desired learning outcomes. Loucks-Horsley et al. (1996) argued that experiential, learner-centered methods of instruction allow participating faculty members to actively discover and implement the information being taught leading to a deeper understanding. For this reason, learner-centered experiential instructional approaches to professional development are more effective than the traditional teacher-centered approaches (Myers and Roberts, 2004). Keeping this in mind, three strategies which can help deepen the learning by faculty participants are field experiences using different teaching strategies, reflection on field experiences, and peer observation. A description of each of these strategies will be provided in the following sections.

Field Experiences

Field experiences are effective ways to enhance a faculty teaching development program. Richardson

(1990) posited that field experiences are an important part of the "learning-to-teach process" (p. 12), and Kaufman (1996) further opined that field experiences improve teacher learning through hands-on, minds-on experiences. Additionally, Knowles' (1984) andragogy theory stated that experiences play an important role in teaching adults and, Roberts' (2006) Model of the Experiential Learning Process, which served as the framework for the delivery portion of this model, exerted that experiences are key to the learning process. The use of field experiences in the model at hand provides an outlet for experimentation by faculty learners.

Therefore, a typical faculty field experience should mirror Roberts' (2006) experiential learning cycle. First, participants in the faculty development should be taught certain instructional techniques such as inquiry-based instruction, cooperative learning, or other various active learning strategies as the initial experience portion of the process. Instruction in these methods should utilize modeling of the particular method being taught (Myers and Roberts, 2004). Depending on the timing of the program, many faculty members will be teaching courses while participating in faculty development, so the next step would require participants to use each method in their own classroom, which would constitute the field experience. Accommodations such as teaching to peers or guest lecturing could be made for faculty members who do not teach a class during the course of the faculty development program, or perhaps professional development organizers might wish to limit participation to faculty members with teaching appointments.

Reflection on Field Experiences

After the experience, the next major component of experiential learning is reflection (Kolb, 1984; Myers and Roberts, 2004; Roberts, 2006). Reflection on a field experience is more than determining whether or not a particular teaching method was effective. Adler (1991) suggested that reflection requires teachers to study, evaluate, and respond to their individual teaching situations to enhance their skill development. In addition, Gore (1987) expressed reflection as an important factor in the continued growth of teachers as a means of developing open-mindedness to looking at new ways of teaching. Reflection should help faculty members develop an understanding of why certain methods work. Examples of reflection activities in a faculty development course could be reflection journals, self-reported evaluation based on video self-observation of teaching, and group discussions about

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the effectiveness of certain instructional methods. Additionally, organizers of faculty development might use guided questions as one way of helping faculty members reflect upon their teaching. A few sample guided questions could include: (a) what aspects of your teaching went well, (b) what aspects of your teaching might you change (c) why do you think this activity went/did not go well, and (d) how did your students react to this activity? These are only a few examples of guided questions; faculty professional development organizers could create a list tailored to their situation.

Peer Observation

Learning occurs in social contexts (Vygotsky, 1978); therefore, peer observation should prove useful in helping faculty members develop a deeper knowledge about teaching strategies. Kaufman (1996) posited that peer collaboration should be used when training teachers because it helps them with their learning as well as contributing to the learning of others. Sparks (1986) found that peer observation of teaching significantly improved teaching performance in three ways. First, peer observation helped improve morale and ushered in a sense of team spirit. Second, evaluation of others may have helped teachers see their own faults, and third teachers were able to receive new ideas from watching others in the classroom.

A faculty development course based on the Experiential Learning Model of Faculty Development in Teaching would require faculty participants to observe and evaluate a colleague's classroom teaching followed by a debriefing session between the evaluator and their colleague about the experience. This would serve two purposes for the faculty development participant (evaluator). First, it would help them generalize the knowledge learned in the faculty development course because they would see the teaching methods used in different contexts. This step aligns with Roberts' (2006) model, as generalization follows reflection in the experiential learning process model. Additionally, it would help evaluators reflect on their own teaching practices.

Follow-up/Evaluation

The last phase of the Experiential Learning Model of Faculty Development in Teaching is the follow-up/evaluation stage. Myers and Roberts (2004) argued evaluation is an essential component of faculty professional development. Kirkpatrick (1998) offered three reasons that substantiate the need for evaluation: (a) evaluation provides justification for the program and personnel involved; (b) evaluation

shows the needs for future faculty development; and (c) the effectiveness of the program can be measured along with suggestions for improvement. In addition, Kirkpatrick suggested that evaluation should occur at four levels, the first of which is participant reaction. Participant reaction provides professional developers information concerning participants' thoughts about the faculty development. The second level of evaluation suggested by Kirkpatrick is actual learning, which tells professional developers what skills and knowledge were acquired as a result of the faculty development. The third level of evaluation examines behavior changes as a result of the faculty development, while the last level of evaluation, results, seeks to determine the actual impact of the faculty development. Evaluation can occur in a variety of ways; however, evaluation should be included in faculty development programs as a means of assessing effectiveness.

Conclusion

Societal changes, including growth in technology, population, and globalization, have prompted the need for improvements in the way undergraduates are equipped for the workplace (NRC, 2009). Research shows a need to improve classroom instruction, with faculty professional development as the means to accomplishing this (Myers and Roberts, 2004). Adhering to adult learning, constructivist, and experiential learning theories, faculty professional development should engage the participants and provide them learning experiences from which to construct their knowledge. Effective faculty professional development programs focus on the faculty learner, providing practical, context-specific experiences that can help teachers increase their repertoire of instructional methods (Myers and Roberts, 2004; Schlager and Fusco, 2003). Additionally, faculty development experiences should utilize the instructional methods being taught (Myers and Roberts, 2004) because as Richardson (1990) suggested, teachers' teaching behaviors tend to model the way they were taught.

Roberts' (2006) Model of the Experiential Learning Process was merged with Lawler and King's (2000) Adult Learning Model for Faculty Development to create the Experiential Learning Model of Faculty Development in Teaching. This new model combines the programmatic aspects of Lawler and King's model with an experiential learning based delivery. The three stages included in the model are planning, delivery, and follow-up/evaluation. In the planning stage, the purpose and logistics of the faculty development are determined, and during the delivery stage participants

are instructed on how to use various teaching methods. Three specific strategies that correspond to Roberts' (2006) experiential learning process were introduced in the delivery stage to help reinforce the teaching of instructional methods. These three strategies were field experiences, reflection on field experiences, and peer observation. The final stage of the model, the follow-up/evaluation stage, is where the "success" of the program is determined. Participant reactions, actual learning, behavioral changes, and impacts can be measured during the last stage to determine the overall effectiveness of the faculty development program.

The Experiential Learning Model of Faculty Development in Teaching should be beneficial in helping organizers of faculty development arrange and implement faculty professional development programs. Recommendations for the model would include, introducing the model to faculty development organizers, as well as testing the efficacy of the model in designing and implementing faculty professional development. Implications are that campus teaching centers may benefit from the model. Campus teaching centers typically provide support for teaching to faculty members, and this model may offer one method for teaching centers to provide faculty professional development.

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