Are we preparing doctoral students in the art of teaching?

Richard L. Utecht
University of Texas at San Antonio

Raydel Tullous
University of Texas at San Antonio

ABSTRACT

More than half of all business doctoral students will seek employment in colleges and universities. Some new faculty may naturally excel in the classroom, but for others, the road is more difficult. Many doctoral students who entered academia did not feel that they were adequately equipped to manage the class and provide the appropriate learning environment. Various researchers have expressed concern about the need for doctoral students to receive some preparation for their role as teachers. This paper discusses studies that address doctoral students and describes a current doctoral teaching seminar. The impact of this teaching seminar has resulted in first time teaching doctoral students beginning the teaching component of their career pursuing higher order teaching skills. The course instills confidence in the first time teachers by enabling them to implement active learning techniques to motivate and engage students.

Keywords: Self-efficacy, learning styles, active learning, teaching preparation.

Introduction

The Bureau of Labor Statistics of the U.S. Department of Labor reported that approximately 1.7 million postsecondary teachers were employed in educational institutions in 2006 (*Occupational Outlook Handbook*). The Bureau estimates that number will grow by 23 percent between 2006 and 2016 due in part to the expected increases in college enrollment. Most of the current postsecondary teachers are employed in 4-year universities and colleges or in 2-year community colleges, and they are organized into departments or discipline-based areas.

According to the "Survey of Earned Doctorates (SED)," the majority of the graduating doctoral students seek employment in colleges and universities (Hoffer, et al., 2006). The percentage of those students who had definite postgraduate employment commitments in higher education varied across fields of study. Humanities had the highest percentage (85.2 percent) while engineering had the lowest percentage (14.9 percent). For those with postgraduate commitments in any area, 39 percent identified their main work activities as teaching, and 37 percent identified research and development as their main work activities. The work activities followed a similar pattern with respect to variation across fields of study. Engineering had the highest percentage (77.4 percent) expecting to work in research and development, and humanities doctorates had the highest percentage expecting to teach (74.7 percent).

Most future faculty will not find positions at the research institutions since only around 6.4 percent of the U. S. universities and colleges are considered research institutions according to the Carnegie Classification of Institutions of Higher Education (Carnegie Foundation, 2005). Thus, it is obvious that most new faculty members will be involved in teaching to some extent. Since the early 1990s the interest in preparing doctoral students to teach as well as to conduct research has grown. However, despite evidence that providing training in teaching for postsecondary teachers enhances the teaching experience and boosts self-confidence (Burton, Bamberry, & Harris-Boundy, 2005), many university doctoral programs still do not emphasize the importance of preparing doctoral students to teach.

Since it is inevitable that new doctorates will be teaching some classes as they enter academia, it will serve doctoral programs well to help these students prepare for the teaching component of their academic careers. This preparation also can benefit the research component. That is, if the students are better prepared to teach, more time can be devoted to research, and they will be better prepared to communicate the knowledge gained from their research.

This paper discusses some of the statistics regarding doctoral students, challenges facing doctoral programs, Ph.D. training, and business doctoral programs. Also included is an explanation of a new course introduced in the summer of 2006 in the College of Business at the University of Texas at San Antonio along with an overview of the course design and content.

A Brief Glimpse into Doctoral Programs

Certainly there is a keen interest in recruiting and educating individuals for doctoral programs, particularly in the sciences and engineering. This is evidenced by a number of studies and surveys conducted by various agencies and institutions. For example, the Survey of Earned Doctorates (SED) is funded by several U.S. government agencies, and the first survey was conducted for the 1957-58 academic year. The results from the latest survey showed that 45,596

research doctorates were awarded during the 2005-2006 academic year. This represented a 5.1 percent growth over the previous year. The SED focuses on collecting data on the education and characteristics of individuals seeking doctorates as well as their postgraduate plans. Highlights of the survey are provided in the Summary Report including the statement that 54 percent of those doctorate recipients with firm commitments for employment planned to work in educational institutions.

An earlier national survey of doctoral students was conducted in 1999. Approximately 4,000 students in 11 arts and sciences disciplines from 27 universities were surveyed regarding their doctoral education and career preparation (Golde & Dore, 2001). The authors stated that their goal was to identify practices that worked or did not work in doctoral programs. One of their findings revealed that the respondents in the study did not believe that their doctoral programs prepared them for the jobs they took. Although the students felt they were reasonably well prepared to conduct research, they did not feel they were as prepared to teach.

Golde (2004) reported that many of the arts and sciences doctoral students felt that they had been inadequately prepared for their academic careers. Although it is accepted that doctoral programs emphasize research, some conflicts arise among academicians as to the need to train doctoral students about the art of teaching. While Gale and Golde (2004) indicated that universities were beginning to offer pedagogical preparation for future faculty, there still exists a need for graduate programs to offer instruction in the scholarship of teaching and learning.

Departments/disciplines place different emphases upon preparing doctoral students as teachers. Most doctoral students are given intensive work in narrowly defined subject areas and are conscientiously trained in the technical skills required for conducting research in those subject areas. Although most universities and search committees seeking new faculty focus on the candidate's research capabilities, some express concern about the teaching abilities of the graduates.

Another issue important in selecting new faculty is the ability to communicate. It is obvious that communication skills are important for academic careers. Professors must be able to teach, make presentations to peers, and publish their research. Frequently the communication skills are ignored in doctoral programs. The issues are not just those of accent and grammar, but the need for writing and speaking skills. A number of universities are reexamining their priorities and objectives in their doctoral programs.

The National Association of Graduate-Professional Students (NAGPS) conducted an online survey in 2000. The survey was designed to assess student perception of doctoral programs, and more than 32,000 current and recent doctoral students participated. The study indicated that 81 percent of the students were satisfied with their programs overall, but only 45 percent were satisfied with their preparation for teaching (2000 National Doctoral Program Survey).

Jean Forray (1996) asked the question "How should we select and train doctoral students as teachers?" to a group of six management faculty members with varying degrees of experience. At the end of the interviews she had additional questions, but concluded that the "design of doctoral student training is clearly embedded in a larger discussion of professional values" (p. 69).

Hershey, Gargeya and Eatman (1996) conducted a survey of recent doctoral business graduates (i.e., "no more than four full years of teaching experience at the current institution"). The survey consisted of twenty-four statements regarding teaching competency. The respondents

were asked to indicate the importance of each of the areas, and to rate the amount of preparation they had received in their graduate programs. The statement receiving the most important rating was "Developing teaching-presentation skills." Interestingly, the students felt they were least prepared in this area. Two other areas receiving the next most important ratings were: "planning an existing course and appropriate content coverage" and "motivating students."

Members of the Task Force on Teaching and Career Development at Harvard suggested a change of emphasis in higher education institutions by considering teaching and student learning as important as excellence in scholarship. They appealed to the Dean of the Faculty of Arts and Sciences to give equal weight to teaching and research when making rewards. Another one of their recommendations was to provide new funds for innovative classroom approaches and training junior faculty and doctoral students. (Task Force, Harvard, 2007).

While educational institutions expect faculty to be effective teachers, competent researchers, and an active partner in the university and community, a debate continues regarding the perception that doctoral programs focus on research with minor concern about preparing students to enter the classroom. Many academicians believe that specialized study is adequate preparation for postsecondary teaching. While this may be a reasonable expectation for graduate programs, it is likely to prove inadequate for undergraduate programs. Characteristics of undergraduate students (e.g., age, experience, etc.) are different and require different perspectives. Some researchers also believe that doctoral students should be enlightened as to their other university roles such as advisors (Kupfer, 2007).

Magner (2000) also indicates that the debate continues on Ph.D. training. She suggested that the attendees at the conference on "Re-envisioning the Ph.D." felt there were issues not addressed by doctoral programs. Although many suggestions were brought forward, no clear cut guidelines were fashioned. Meacham (2002) sampled approximately fifty faculty members and administrators and concluded that they did not believe that there was a match between the qualities generated by most doctoral programs and those qualities sought in new faculty.

In most universities a faculty member's primary role is a teacher. Many articles and texts have been written on the subject of teaching, but how many doctoral students are given assignments which require their reading of this subject matter. Many universities may provide some sort of training for prospective postsecondary teachers, but they vary across departments, disciplines, and colleges. A teaching intern program began in the summer of 1990 at Georgia Tech. Norris (1998) conducted a survey of former students, department chairs at universities where former interns were currently teaching, and other faculty participants. She reports that results of the survey indicated that the program had been effective and that a required seminar was being added to the Ph.D. curriculum.

A report entitled "Reshaping the Graduate Education of Scientists and Engineers (1995) by the National Academies of Sciences and Engineering, recommended that doctoral programs should be changed to include preparation in teaching as well as preparation in non-academic settings. Some believe that improvements in the quality of education can be expedited by changing campus and disciplinary cultures (Applegate, 2002).

Business Doctoral Students

The number of business doctoral students is small relative to the total number of doctorates awarded each year. In many of the national surveys business doctoral students, if

included in the survey, are grouped under "other categories" with communications and unclassified fields (e.g., SED). So, how do business school doctoral programs prepare students for teaching? Are they focusing on the same models as the other disciplines? Alutto (1993) identified three categories of schools (teaching-focused, research-focused, and balanced). The balanced represents the largest number of schools with respect to business. Alutto also suggested two models that could be applied to the three categories, but he emphasized that each doctoral institution should identify the needs of their customers (i.e., which type of colleges or universities will be the recipients of the institution's doctoral students). Understanding the needs of their customers will be important in ensuring that the doctoral students meet the criteria of prospective colleges. The third category (balanced) probably represents the largest number of schools with respect to business.

Since business schools have a variety of disciplines, it is necessary that the doctoral students are accomplished in their specific discipline. However, because of the need to address strategic as well as tactical issues of an organization, there is a need for integration of disciplines. Thus, it is important that business doctoral students be broadly trained in the core disciplines and their application to practical problems in order for them to communicate to their students how the functional areas are incorporated. Frequently, the integration of the disciplines only occurs in a "capstone" course. It is not unusual that some faculty believe that specializing in a narrow area of research prepares doctoral students to teach. Moreover this type of thinking may result in mismatches between the needs of the hiring institutions and the preparation of the doctoral students.

Harvey Brightman (1995) challenged faculty to join him in increasing their efforts to prepare doctoral students to teach. Although numerous members of the faculty believe that research is assigned a higher value than teaching, Brightman suggested that champions and top management support (i.e., not lip service but real incentives and rewards for excellent teaching) could pave the way for renewed interest in teaching and learning.

In a survey of faculty members, over 50 percent felt that they should focus on research, but only 10 percent believed their main emphasis should be teaching (Porter & McKibbin, 1988). Their report was based upon 300 interviews with administrators and faculty members and over 8,000 surveys from students and alumni. One of the authors' criticisms was that business schools had become complacent and that few examples of major changes were being considered. They also contended that the emphasis on research appeared to be more about increasing the quantity than its actual impact on business issues. Lyman Porter (1997) looked for changes a decade later. He found numerous positive changes such as trying some innovations and a lessening of a herd mentality. He also noted that a stronger practicum and project emphasis was occurring. However, he noted that doctoral education seemed stagnated; that is, the preparation of doctoral students appeared to be about the same as it was in the 1960s, 1970, and 1980s.

In the late 1950s business schools were criticized as having sub-standard faculty qualifications, course work and research (Gordon & Howell, 1959; Pierson, 1959). An AACSB study in 1988 indicated changes had occurred, but that the business schools had moved too far to the pure research side and neglected the applied side. Thus, the traditional debate between teaching and research emphases spread through the business schools. As noted earlier only 6.4 percent of colleges and universities are classified as research institutions, but they produce around 34 percent of the undergraduates in the U.S. Some state legislators began to mandate teaching loads (Weber & Russ, 1997) in part because they felt that some researchers were

overpaid and underused in the teaching component of universities (Winkler, 1992).

Assessment of Doctoral Programs

As noted in this paper most Ph.D. programs emphasize preparing doctoral students for research in their respective disciplines. Assessment of doctoral education has typically focused on a variety of metrics, such as completion rates. Some programs have developed criteria for attainment of learning outcomes for graduate programs. For example, direct assessment of learning objectives may include completion of a doctoral dissertation, passing comprehensive examinations, presenting papers at conferences, and so on. Indirect assessment may include positions attained and placement rates, post-graduate employer surveys, and self-assessment of learning after graduation. However, regardless of whether assessment was direct or indirect, the focus was on the disciplinary scholarship of discovery not on how pedagogically prepared they were to begin their teaching careers.

Although there appears to be a shift for universities to offer some form of assistance in developing pedagogical training, little research has been published that assesses how well these courses, workshops, seminars, etc. are succeeding. Some programs offer teaching certificates [University of Pennsylvania through their Center for Teaching and Learning] which includes several workshops and observations of the graduate students in the classroom. The University of Tennessee at Knoxville [business school] offers a course for doctoral students to develop their teaching skills. Georgia Tech [mechanical engineering] offers a doctoral seminar on teaching.

Thus, as one begins to develop a course or program to help prepare doctoral students for a successful teaching experience rather than one of mere survival, an extensive search for studies on what works and what does not work was disappointing. Thus, the question of how to assess the teaching curriculum to ensure students are receiving adequate preparation remains unanswered. In the remaining sections of this paper a preliminary critique of one doctoral teaching seminar and some of the teaching and learning concepts on which the course was based are presented together with suggestions for future research on assessing the course.

Teaching and Learning

Three general perspectives regarding teaching may be considered when developing a teaching philosophy. Teaching may be thought of as an interaction between a teacher and a student conducted in such a way as to (Barr and Tagg, 1995; McKeachie & Svinicki, 2006):

- Provide the student with the opportunity to learn. This focuses on the role of the teacher being a knowledge generator and source, a role model, and a mentor. Thus, the faculty member would continually gain expertise through research and communicate this to the students.
- Enable the student to learn. Under this perspective the teacher still must be a source of knowledge while being able to create an environment conducive to learning. The faculty member would develop interactive skills that create interest and motivate students to learn.
- Cause the student to learn. Under this case the teacher has the primary responsibility for student learning. Faculty members are considered to be more effective the higher the test

scores on some prescribed examination.

Unfortunately, this third perspective has become popular with the public and legislators under the umbrella of accountability. While it is all well and good for students to score high on examinations, learning to be a citizen of the world is more than testing. Thus, if we consider that we can help doctoral students prepare to teach, we need to understand they will not all follow a cookie-cutter approach. They are different, and how they teach will vary. However, there is some agreement that some proficiency in teaching can be transferred through workshops, courses, seminars, internships, mentors, etc. This is thought to be true in several broad dimensions of teaching (Lowman, 1999; McKeichie & Svinicki, 2006):

- Content expertise. Knowing the subject matter being taught.
- Teaching philosophy. Developing a way of thinking about teaching.
- Instructional delivery skills and characteristics. Presentation of the subject matter in a manner that would encourage students to learn.
- Instructional design skills. Designing active learning instructional activities in such a manner to ensure student engagement.
- Course Management Skills. Managing a course, grading, arranging for guest lecturers and facilities, and so on.

Although mastery of the subject matter has been one of the four most frequently mentioned characteristics of an effective college teacher for many years (Crawford & Bradshaw, 1968; French, 1957; Gadzella, 1968), and as noted in several of the surveys, most students believe they are receiving the necessary training and tools in their field of study. With the exception of encouraging doctoral students to let their enthusiasm for their subject be spontaneous, a teaching preparation course should focus on the other dimensions.

In addition to the above, the doctoral seminar was structured around five critical drivers (CDs), which are essential for a successful teaching-learning experience (Connect, Concern, Competence, Clarity of Impact, and Conduct the Class Fairly). These CDs are reinforced with every class meeting and assignment throughout the course.

- Connect. The doctoral students are encouraged to connect with their students by learning their names and creating a comfortable atmosphere which results in motivating students and improving attendance.
- Concern. Helping the students learn how to learn is the essence of the "scholarship of teaching," and caring about student performance is another motivating factor.
- Competence. The instructors must be knowledgeable in their fields and be able to convey an applied emphasis to which students can understand and relate.
- Clarity of Impact. Structure and organization of a course is imperative to enabling the students to conceptualize the material by making connections to a relevant frame of reference. Presentation styles from lecture to discussion to collaborative techniques need to reinforce the overall conceptualization of the course in the students' minds.
- Conduct the Class Fairly. Student assessment of assignments must be reasonable and relevant. This critical driver can void all of the other critical drivers if assessment is perceived as unfair.

A Look at One Doctoral Teaching Seminar

In 2002 UTSA began offering a Ph.D. in Business Administration with concentrations in accounting, finance, information technology, and organization and management studies. In the summer of 2006, a new course was developed (GBA 7103, Doctoral Teaching Seminar) to help the graduates prepare for academic careers. The course is organized into ten class sessions of four hours each.

Teaching skills are derived from activities that enhance student learning, and the methods used in this course are based upon active learning methods. While the class is not a lecture course, a considerable amount of reading is required. Two relevant teaching textbooks (Lowman's *Mastering the Techniques of Teaching* and *McKeachie's Teaching Tips*) are required as are numerous articles that provide a variety of viewpoints relevant to teaching and learning styles.

The students are assigned readings for the first day of class and expected to participate in discussions. Although all of the students may not know or be able to express their feelings about teaching the first day, they are asked to answer several questions (which by the end of the course, they should be able to answer):

- What is your philosophy of teaching?
- How do you intend to position your career as a college professor?
- What constitutes exemplary teaching?
- What kind of teacher do you want to be?

For the second class, the students are to prepare a reflective paper based upon their entire education. There are two parts to the paper:

Part I. Who were your best teachers? Why? What did they do that was most effective? Do they serve as a role model for your teaching style? What characteristics of their teaching style do you want to incorporate into your teaching style? What characteristics do these teachers have in common? Which teacher(s) had the greatest influence on your life? Why?

Part II. Who were your worst teachers? Why? What did they do that was most ineffective? What characteristics of their teaching style do you want to avoid? What characteristics do these teachers have in common? Do you think they felt they were ineffective?

During the second class they also begin to discuss teaching styles and classroom dynamics. For the third class, they are conducting a workshop on student learning styles and discussing the connection between teaching and learning styles. By the fourth class, course design and development of relevant assignments are discussed. These elements will provide the basis for the course design project that they will complete before the end of the semester. For the next class, they are asked to consider their specific disciplines (i.e., accounting, finance, and so on) and prepare a discipline conceptualization paper. The paper includes a taxonomy/overview/framework for a "principles" course in their field that could serve as a teaching platform for the principles course as well as other courses in their discipline. This paper

along with the development of the relevant assignments and syllabus will serve as the basis for the teaching video assignment required on the last day of class. Other classes focus on student motivation, learning objectives, assessment, student concerns and time management. Numerous presentations, discussions, and critiques are part of each class. The final paper for the course is a description of their teaching philosophy and what teaching style(s) they plan to use. They are encouraged to interview and observe faculty, and they must include a literature review of the teaching style(s) they will be using.

Another dimension not mentioned in the five broad dimensions is related to the comfort level an individual feels when beginning to teach. Some degree of self-confidence may help allay some of the fears that new faculty face when they are entirely on their own in the classroom for the first time. Their perception that they have something to offer the students can be reassuring to them. Esenc Balam (2006) found a significant relationship between professors' efficacy beliefs and professors' teaching effectiveness. One's perceived self-efficacy is usually defined in terms of how one perceives their capabilities of producing effects (Bandura, 1994). Thus, "teaching efficacy" refers to one's confidence in their ability to affect student performance. Burton, et al. (2005) reported that new doctoral students who were involved in teaching preparation (e.g. instructional techniques, seminars, workshops, practice, and interaction with experienced instructors) demonstrated an improvement in their sense of personal teaching efficacy. In addition, they hypothesized that teaching seminars would have different effects based upon an individual's personal characteristics and found that the teaching seminar was more effective for those individuals with high levels of positive affectivity. Gist and Mitchell (1992) reported that self-efficacy influenced activities such as goal level, effort, and persistence. Believing that one has the necessary skills to perform successfully may help them develop the confidence to actually provide a better learning environment. It is hoped that this course will play an important part in the students developing a sense of self-confidence in their ability to help other students learn. It is also hoped that the course will help them see themselves as college professors who are a part of the entire university community and that while research is important, there are other rewards to be gained from teaching.

During the year that the course described in this paper was being developed decisions about what should be included in the course became a central focus. While some issues may seem trivial, it was imperative to consider how much time to give to teaching and learning styles, how much time to lecture, how much time for in-class presentations, how to assess their assignments, and so on. Certainly, as with any course, the professor can expect to make modifications to the course material and presentation. One adds new materials and culls less effective materials.

Central to the course are the five CDs. The CDs (connect, concern, competent, clarity of impact and conduct class fairly) are emphasized to help the graduate students engage in active learning and student motivation and create an effective teaching/learning environment. Since these drivers are included in the instruction, they are applied in teaching the seminar. One of the assignments in the first class was a "course design" project, and the intent of the assignment was an in-depth preparation of a principles course for their respective discipline. The emphasis of the assignment was to avoid the pitfalls of being a chapter ahead of the class and reading PowerPoint slides prepared by a book publisher.

Most of the students have been in the doctoral programs for two years and will begin to teach their first principles course in the fall semester. Thus, this course is offered in the summer

to prepare students for the fall semester. Typically, planning a new course should take about three months (McKeachie & Svinicki, 2006).

Initially a student would turn in a syllabus and present it to the class as if it were the first day of class. The other doctoral students would role play as undergraduates asking abundant questions and presenting obstacles. The syllabus had to have a schedule with everything planned out for each day of the semester. However, a problem occurred regarding the schedule on the syllabus. The instructor could not verify that a true lesson plan and topic existed for each day on the schedule. For some students, it appeared that the schedule mirrored a table of contents from the textbook.

Since one of the critical drivers, clarity of impact, did not appear to be clear for this assignment, the assignment was amended for future classes. Instead of presenting the syllabus as the "first day" presentation, a student would present the syllabus for ten to twenty minutes or until the instructor was satisfied. The instructor would stop the student and randomly pick a day in the future from the syllabus, allow the student to leave the classroom and review their notes for 10 to 15 minutes, return and conduct the class based upon that specific class day. Although the students were anxious about the assignment when they were preparing it, for those teaching in the fall semester, they indicated that it was the single best "thing" they did to prepare them for their first course. This was true not only from a time, structure and organizational perspective but also from a self confidence perspective.

However, it was not until the end of the second time the course had been offered that assessment of the learning outcomes of the course became prominent. This is the current stage of this study. During the summer of 2009 another seminar will be conducted, and the learning objectives will be reexamined and modifications to embedding assessment will be included.

Suggestions for Future Assessment

As noted previously some universities are including teacher preparation courses, seminars, internships, and workshops in their doctoral programs, but formal assessment, either direct or indirect, of the specific pedagogical preparation has been lacking. The survey conducted by Hershey, Gargeya and Eatman (1996) asked about the recent doctoral graduates about their teaching preparation, but their answers were not linked to any specific courses. Rather they were asked about how their doctoral programs helped prepare them for teaching. However, Norris and Palmer (1998) surveyed former student and faculty participants in the Georgia Tech internship program and found that a majority of the interns felt that participation in the program was beneficial. This course described in this paper is still in the early stages of development, and modifications to the course have been based upon student feedback at the end of the course and through assessments embedded in the class assignments.

Approximately 40 doctoral students have completed the course and have taught at least one semester. As a first step in assessing the effectiveness of this doctoral course, during the summer of 2009, each of these students will be contacted at their respective colleges and requested to complete a survey regarding their perception of the how the course impacted their first teaching assignment, what were the most worthwhile and least worthwhile assignments, and what modifications they would suggest.

Although the course initially was met with some skepticism, the feedback from participants has been positive, and other graduate business students who were not required to

take the course have requested permission to audit the course. Students who completed the course over the past three summers and are currently teaching undergraduate courses continue to stay in contact with the instructor and provide feedback about their experiences in their courses. Their feedback also is helpful in learning what course components helped them the most and modifying or emphasizing key points for the next iteration of the course.

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