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Creating the Teaching Professor: Guiding Graduate Students to Become Effective Teachers

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Abstract: This paper describes the practices and outcomes of a pilot graduate student seminar on teaching and learning within the History Department at the University of Texas at El Paso. It documents results by considering the careers of three accomplished PhD students, who learned classroom techniques over different periods of time through personal inquiry, formal training, and by teaching at different levels. Their progress in the History Teaching and Learning Seminar is measured against the documented experiences of thirty other graduate students in three different iterations of the teaching and learning seminar from 2001 to 2004.

I. Introduction.

A change is underway in colleges and universities to train graduate students and graduate assistants to be better college instructors (Jungst, Licklider, and Wiersema, 2003).[2] It is due in large measure to the work of Ernest Boyer and Parker Palmer.[3] This paper reflects efforts at the University of Texas at El Paso to train graduate students to become effective college instructors. It examines the careers of three accomplished PhD students, Ann Gabbert, Joanne Kropp and Patrick Pynes, who learned classroom techniques over different periods of time through personal inquiry, formal training, and teaching at different levels both within the El Paso community and at the University of Texas at El Paso. Their accounts are compared with the documented experiences of thirty other graduate students in three different iterations of the History Teaching and Learning Seminar as it was taught in the History PhD Program at the University of Texas at El Paso from 2001 to 2004. Including graduate students in the research and writing of this piece reduces the fragmentation of the graduate student career, clarifies the importance of teacher-student coordination in the classroom, and allows the real voice of the graduate student to be heard.

This study began as an investigation of how UTEP's history graduate students came to know and employ collaborative learning techniques. In compiling their experiences, participants realized several key elements of good teaching. One: the essentials of cooperative learning are representative of good teaching in general. Two: developing the skills of an effective teacher is

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[2] Jungst et al. document how the 1983 report *A Nation at Risk* triggered concern over the American educational system, which led, in turn, to the reforms advocated by the 1993 report, *An American Imperative*. Higher education initially reacted to the problems of America's schools in papers such as the 1995, Association of American Colleges and Universities work "The Direction of Educational Change: Putting Learning at the Center".

[3] One of the most extensive efforts to develop better college teachers is the Preparing Future Faculty Program, a national consortium of some 300 different programs. Information on PFF is available at www.preparing-faculty.org. According to the PFF website, PFF programs that address the teaching of history exist at Arizona State University, Boston College, Florida State University and Howard University.

more important than learning a new teaching technique (Millis and Cottell, 1998).[4] Three: the current training system for college teachers needs greater breadth in the way in which it trains academics to be teachers (Adams, 1995). As a result, the discussion here is about how graduate students can acquire a strong conceptual framework for their teaching and actualize their teaching and research simultaneously (Murray, 1995). The goal will be to lay out a plan that integrates research, class preparation, personal abilities, student preferences, learning theory, and institutional structure into a complete teaching and learning process (Gaff, 2002). In my own career, and—as we shall see—in the careers of Gabbert, Kropp and Pynes, the failure to integrate teaching and scholarship was a significant difficulty.

A. Self-Examination.

In my degree plan teaching and scholarship were separate elements. Scholarship was the focus of my graduate education and the single most important element in it, which for me consisted largely of the attainment and advancement of content knowledge. Teaching was broadly conceived as the dissemination of content knowledge to students. While I had the opportunity to practice delivering content to students, I never received formal training in how students learn, what difficulties they encounter in learning, how to address student learning problems or even how to present material effectively to students. As a result, as a young professor, I utilized a design and a delivery model based on what I had observed and experienced as a student. My criteria for choosing particular teaching styles or techniques were based on my personal success with the technique when I had encountered it as a student. When my undergraduate students were unresponsive, I had no idea why. My recourse in unsuccessful classes was to adopt different teaching techniques, such as more group work, or redeveloped lectures or research projects, which had been successful for colleagues. I had no specific knowledge of what made any teaching technique an effective learning tool, and I often blamed students for what I perceived as unacceptable student achievement. Much of the current literature confirms that my experiences were not unique (Jungst, Licklider, and Wiersema, 2003; Rankin, 1994).

After twenty years of college teaching, an encounter with Ernest L. Boyer's *Scholarship Reconsidered: Priorities of the Professoriate* made me realize that I did not understand the connections between scholarship and teaching. I concluded that my separation of scholarship and teaching was one of the basic reasons for my dissatisfaction with what seemed to be persistent underachievement among my students. What I lacked was a basic knowledge of how to build the different tasks of a college professor into an integrated profession (Boyer, 1990). As a result, one of the goals of the teaching and learning seminar is to assist graduate students to articulate for

[4] Cooperative learning is first and foremost collaborative in that it is based on the working principle of shared action and responsibility among members of a small group and among the different groups and the teacher in the class. It is highly structured with precisely delineated procedures to guide students in the creation of academic products or solutions that utilize and demonstrate learning. As a result, effective cooperative learning devices promote (1) a positive interdependence among group members. Students must be linked in such a way as to promote the belief that all group members succeed when each one succeeds. (2) Cooperative learning involves face-to-face interaction. Students directly assist, encourage, and support one another in the completion of learning activities and projects. (3) In cooperative learning situations there is a precise individual accountability for the group and each member of the group. Students get feedback to see how their work and the work of their peers develops, and they are graded for their contributions at each step. (4) Successful cooperative learning situations provide extensive instruction for students in the social skills needed to organize and operate within a group situation.

themselves a working career plan, which integrates teaching and scholarship to further their careers and to promote greater student learning (Angelo and Cross, 1993).

II. How Graduate Students Have Been Introduced to Teaching.

In order to understand the gains that graduate students made in the teaching and learning seminar, we must examine first how University of Texas at El Paso graduate students in History were introduced to teaching. How the teaching and learning seminar addresses the problems they encountered is outlined following their accounts.

A. Three Case Studies.

Ann Gabbert, Joanne Kropp and Patrick Pynes became a part of this project because of their demonstrated effectiveness in teaching undergraduate students. Each of them has a different approach to teaching excellence. More importantly, they are representative of the careers of the thirty students who have been a part of the teaching and learning seminar and the graduate program in History at the University of Texas at El Paso. The following three accounts are personal recollections.

1. Patrick Pynes: March, 2004.

In August of 1993, as I sat at a computer in the UTEP Library, the Chair of the History Department walked up to me and handed me a slip of paper with a name and phone number on it. He said, “They are looking for a history teacher, and I told them that you are their guy.” A day later I left the school—a small private high school with an advanced curriculum—with a job that started in a week and in-service training in three days. I was now a teacher.

I thought about my experience as a student and my minimal experience as a teacher. At the University of Texas at El Paso, I had taught a GRE preparation class,
a developmental reading and study skills workshop, and I had been a Teaching Assistant for three years. I knew that there were some things that I wanted to borrow from some professors, as well as some things I did not want to model from other professors. The classes that had seemed to fit my learning patterns best had given me a chance to explore the material and get my questions answered in a prompt manner instead of waiting to catch the professor in his or her office. But how was I to do that? My only formal teacher training would be at a weekend Advanced Placement Conference and Seminar in Albuquerque, New Mexico.

In the fall of 2000, I decided to pursue a PhD in History. After several long discussions, I was set to teach at the high school, be a glorified Teaching Assistant at the University and tackle my studies. However, the Friday before the semester started, I was asked to be the instructor of a university level, freshman survey course. I had the weekend to get ready. I garnered all of the syllabi that the history department had on file, reviewed the books which the bookstore had in stock, and got to work. I also visited one of my intellectual mentors, a good friend, and we began what has become a three-year discussion on how to most effectively utilize learning groups. A year later I was enrolled in the History Teaching and Learning Seminar.

2. Ann Gabbert: March, 2004.

From 2000 to 2002, I was an assistant instructor to three professors in the history department. This was an opportunity to observe seasoned faculty in the classroom. Each of the professors had a distinctive style, and I found myself borrowing and modeling aspects of each in my own classroom. More importantly, each of these professors was interested in pedagogy and was willing to discuss teaching techniques with me and to allow me to experiment in their classes, either as a lecturer or as a discussion leader. Because of the large size of the classes, each of the professors relied primarily on lectures. As a result**,** while I gained a great deal of knowledge about how to organize course material—I was also studying for my preliminary exams at the time—my first attempts at lectures in the large auditorium setting resembled conference presentations.

In the spring of 2002, I enrolled in the UTEP History Department Seminar on Teaching and Learning. The course overlapped with my last semester as an assistant instructor, and I was able to apply the instructional methods we learned in the seminar in a classroom setting. In all, I found that the teaching seminar was a wonderful experience. Although some might see the active teaching methods that were stressed in the seminar as a contradiction to passive learning (i.e., lectures), I found the processes complementary. I still believe that lectures are a good way to impart "factoids", but I also believe that it is necessary to engage the students to complete the learning process.

3. Joanne Kropp: March, 2004.

I got my job three weeks before the semester started, and I had to create, from scratch, three different courses. Two were large history sections; the third was a seminar in critical thinking. I had been a teaching assistant in history, so I used my supervising professors' books, syllabi, and notes to frantically prepare for the history classes.

Two professors I worked for had put students into small discussion groups led by TAs. I wanted to use small group discussion in the large classes, but no one had ever explained to me the learning goals and objectives of this technique or how do supervise multiple groups alone. Lecture and regular testing were all I knew.

However, the critical thinking seminar was part of the Entering Students Program in the University College, which provides instructors with a list of specific teaching goals. I was to pick a topic, find suitable readings and design specific activities to accomplish those goals. This seemed overwhelming. Dr. Weber helped me to understand how to stress student learning rather than professor performance, and, after I had planned the course, a committee of University College instructors reviewed the syllabus and made suggestions for improvements. By following the suggestions, I designed a much better course than I had for my history sections.

Because the University College required that I review my courses regularly, I attended workshops sponsored by the Entering Student Program and the Center for Excellence in Teaching and Learning. I learned how to design team tasks that stimulate discussion and how to employ meaningful out-of-class work that compliments in-class activities. A year later, I entered the PhD program, and I took the Teaching and Learning Seminar.

B. How the History Teaching and Learning Seminar Responds.

The experiences of Gabbert, Kropp and Pynes, as they began their teaching careers, describe an inconsistent and poorly focused set of training procedures for college teachers. My career and the current literature confirm that similar practices have persisted in many colleges and universities. (Jungst, Licklider, and Wiersema, 2003; Rankin, 1994). In response, the History Teaching and Learning Seminar was designed to assist graduate student teachers-in-training to integrate the different elements of their careers in a way that prepares them to become teaching professors, who understand and exploit the interdependent relationship between teaching and scholarship. In that capacity the seminar provides graduate students with three things. (1) It provides a guide on how to develop coherent career plans which integrate the different elements of an academic career. Traditionally, graduate training has focused primarily on content mastery, which was considered adequate training to teach. Goals and objectives focused primarily upon a research agenda. (2) It promotes understanding of the learning styles and behaviors of college students. Graduate students who learn their teaching techniques by observing and modeling their professors often do not know the essentials of how and why undergraduates learn in different situations. (3) It provides practical knowledge of the possibilities and limitations of the teaching techniques that are used in modern college classrooms. This is an essential element of effective problem solving. It helps alleviate personal stress and helps teachers address the issues of student retention. New teachers also need practice developing and using various teaching techniques, but without a theoretical grounding newly employed techniques loose effectiveness. It is important that graduate students address these issues from the start of their careers.

III. Developing a Career Plan.

All graduate students who teach courses in the History Program at UTEP are evaluated every year on the planning and execution of their courses. In almost every case, the written comments of evaluators address the issue of content mastery, commenting upon such things as the organization of material, clarity of presentation and the selection of appropriate material for the course at hand. Interviews with graduate students have shown that content is rarely a cause of severe criticism of a graduate student's teaching.[5] Moreover, the rate at which UTEP history students are passing their preliminary PhD exams and publishing their research demonstrates that graduate students are mastering the appropriate content and are becoming competent historical researchers,[6] believing that it is the proper way to become competent teachers (Press and Washburn, 2000).[7]

[5] A requirement of the academic portfolio is a written evaluation of the graduate student's teaching by a member of the graduate faculty. These letters are the basis of the observation that content is the focus of a majority of the teaching evaluations.

[6] At the time of this writing Ann Gabbert has successfully completed her PhD degree and has published 3 scholarly articles. Joanne Kropp won the university award for outstanding master's thesis. Patrick Pynes has successfully completed three of his four PhD preliminary exams.

[7] In a discussion of the article one student commented: ". . . the 'publish or perish' mentality is very evident in the liberal arts—because it is important to convey a 'research agenda' in order to justify a program's existence . . . , and in my own department, aside from this class, emphasis is placed on writing 'publishable papers'." (Graduate Student 1) A second student had the same impression: "The picture created in these readings fits my experiences and expectations. . . . I have heard the 'publish or perish' expression many times. Upon entering graduate school I was aware of the several directions professors were pulled. However, I was not aware that this conflict began so early in one's graduate career." (Graduate Student 4)

However, the experiences of Gabbert, Kropp and Pynes indicate a problem in the way graduate students articulate the connections between their own mastery of content material and the learning needs of students. Long-term goals were not mentioned. When first asked about their teaching, Kropp and Pynes did not spontaneously articulate the relationship between their research (content mastery) and their activities in the classroom. Kropp had no time to plan her first class, so she "copied" her professors, but without the resources of a full-time teacher some of the strategies she knew became unusable. Pynes also began without time to plan and "borrowed" from his professors. Gabbert, on the other hand, only realized a gain in her knowledge of how to organize content for the classroom after she began the job of class lecturer, recalling that preparing for preliminary examinations as she wrote her lessons resulted in a better integration of her research with her teaching (Gaff, 2002). It is clear that young graduate students encounter serious problems in their classes when they are not prepared to articulate their goals and objectives.

In graduate students who had little or no experience directing their own classes there was even less of a sense of the need to prepare goals and objectives in advance. This was most evident in the reactions of graduate students to the teaching and learning seminar's lesson on syllabus preparation. In preparing for the lesson students had an expectation of the syllabus as the organizational plan for class material alone. For example, one student stated: [8]

> I worked hard on my syllabus, and I thought that I had covered all of the bases, but by the end of class I realized that I had not taken my teaching philosophy into consideration when designing my course. To a certain extent my objectives reflect my philosophy, but this was pure luck, because as I designed the class I was not thinking along those lines. (Graduate Student 1)

Even as they grew more comfortable in the classroom, the graduate students continued to overlook how important their own personalities and preferences were to the class equation (Grasha, 1996). They lacked a set of integrated goals and objectives. As the case studies show they did not plan for the differences between the way in which students learn and the way in which they as instructors planned to teach. They used their personal learning experiences as the basis for selecting teaching methods, addressing only one learning style, the preferred learning style of the teacher. Kropp's reaction to the lesson on the syllabus demonstrates how she grew as a teacher:

> What I took from the class was that the syllabus is a reflection of the teacher's personality. I always had thought that it was a plan for the course and that students naturally took from it what they were supposed to do. I did not realize its importance as a link between the student and the teacher.

In the same way, the seminar helped most of the other graduate students to understand the importance of balancing their preferences with the learning styles of students when planning a class.

To break the cycle of poor planning I require graduate students in the teaching and learning seminar to compile a comprehensive academic/teaching portfolio. A comprehensive

[8] The reactions recorded here are the responses of actual graduate students who had completed a set of readings and had participated in a lesson considering the design, uses, and effects of course syllabi.

portfolio integrates the graduate student's career plan with her/his research agenda, personal learning styles and teaching objectives. It is important to stress to the graduate students that their portfolios must be more than a teaching portfolio. In directing the seminar I have found that focusing only upon a teaching portfolio tends to propagate the assumption that there are divisions between teachers, students, scholarship and teaching. The portfolio provides graduate students with experience integrating research and teaching into their concept of their own careers:

> At first, I thought that some of the exercises compartmentalized a person as a particular type of teacher or learner, but when I was asked how I would teach to accommodate the learning style of a fellow student, I could not answer. That exercise made me realize how complicated the teaching-learning process is. (Graduate Student 1)

Just as the faculty mentoring of the Entering Students Program benefited Kropp, building an academic portfolio redirected participants in the seminar. [9]

The first step in building the portfolio is a thorough self-examination by all members of the class—professor and students. Self-examination identifies the biases and pre-conceptions that everyone in the class has about teaching and learning. It helps to establish a set of clear teaching and learning objectives for the class in general and for every member of the class in particular. As the natural consequence of this self-examination each member of the class must identify both their teaching preferences and their personal learning styles and use the information to develop their own teaching philosophy. This sets the direction of the seminar while it demonstrates to graduate students in the class a fundamental process, which good teaching must employ, group identification and cohesion.

As the seminar director I model the practices which graduate students should imitate. I consider it essential that students understand that I work on the principle that teaching and learning are not separate activities and that learning is achieved to the degree that both student and teacher are dedicated to and informed about the teaching and learning process. As teacher I seek to affect learning not simply by presenting information for student absorption, but rather by working as guide, motivator and participant with the students. It is important that students are aware of this. It works for the professor as a real class demonstration of the idea that "teaching is figuring out what students know and then helping them make connections between new information and prior knowledge" (Cross and Steadman,1996). For the graduate students, because each of them is responsible for her or his own self-evaluation, the exercise increases each student's buy-in and makes her/him personally accountable—something every teacher needs to promote in their own teaching.

IV. Addressing the Weaknesses in Modeling Teaching Techniques.

The first drafts of the graduate students' teaching philosophies demonstrate the growth in their knowledge of good teaching. The following are extracts from the first drafts of their

[9] Good examples of how graduate programs incorporate the portfolio process into their graduate programs are at Michigan State University, which currently offers a Certificate in College Teaching (http://grad.msu.edu/teaching.htm) and the Preparing Future Physics Faculty Program at the University of California, San Diego. (http://ctd.ucsd.edu/programs/pfpf/index.htm) Both programs require a portfolio as an end product of the graduate students' preparation.

teaching philosophies, which Gabbert, Kropp and Pynes wrote at the beginning of the teaching and learning seminar.

A. Ann Gabbert, January, 2002.

I believe in active learning. My philosophy of teaching is that learning/teaching is a joint effort between student and faculty. Although I believe that in a history class students must be competent in a body of knowledge, I also feel strongly that a history class should develop a student's critical reading and thinking skills. While students can achieve content mastery through lectures and reading assignments, knowledge that is jointly constructed by teacher and student through cooperative efforts, such as discussion groups and debate, is more likely to promote analytical skills.

B. Patrick Pynes, January, 2002.

I teach according to Bloom's Taxonomy by using the discipline of history to demonstrate the necessary tools, which allow students to move beyond simply memorizing, to become independent learners capable of analytical thought. A collaborative group structure is the best way that I have found to encourage students to be active learners, not passive receptors of knowledge. Through the use of cooperative and active strategies students become independent, active, life-long learners capable of analytical analysis.

C. Joanne Kropp, February, 2004.

My philosophy of teaching is that content is merely a medium to teach or convey skills. According to Bloom's Taxonomy teacher and student must have the shared goal of exploring material to enhance critical thinking (analytical skills). Improvement in organized writing indicates how well these skills are acquired. Students should have the ability to take in data (read), compare and contrast information in order to break it into components (analyze), reorganize the components (synthesize), in order to express a new or individualized idea (formulate a thesis). They should then be able to compare and contrast various theses in order to find the best/most useful one (evaluation and application). When students master these skills they become effective learners in any field.

D. Analysis.

Together with their personal accounts these first attempts at a teaching philosophy reinforce the observation that successful PhD candidates, given enough time, can develop an intuitive grasp of the teaching-learning process on their own and move beyond the thinking that teaching is only a method of information presentation. However, their progress was inconsistent. It was formal training, such as the teaching and learning seminar or the mentoring in the Beginning Students Program, which allowed Gabbert, Kropp and Pynes to do more than give lip service to the greater goals of improving analytical thinking, motivating students and increasing the retention of historical information. [10]

[10] Beyond enabling graduate students to recognize the overall learning skills of students, training in student evaluation and assessment helps aspiring teachers to recognize other diverse elements in their students such

Lectures and discussions were the preferred classroom activities of most of the graduate students in the teaching and learning seminar. These techniques are the most common ways in which professors address the learning styles of PhD students. However, like Gabbert and Pynes, most of the graduate students when first questioned were not clear about how these techniques would achieve their stated goals. Among the teaching graduate students few could articulate a method for assessing the progress of their students. Kropp's teaching philosophy is a noted exception, but she developed the philosophy after participating in training sessions for faculty in UTEP's Entering Students Program.

In addition, the three graduate students highlighted here gained a significant portion of their teaching experience in "required" courses, the general education element of college curriculum. They were aware of the difficult nature of teaching in such courses, but they had few strategies for dealing with them. Too often they concluded that difficulties arose from the lack of interest and preparation on the part of students, which they identified as an avoidance behavior by the students. They did not realize that for some students avoidance can be a coping mechanism.[11]

Sheila Tobias has identified the type of students found in required courses as the "second tier" of students. They are the students with interest in the subject matter, who for various reasons have decided not to major in the topic. Included in the second tier are the large masses of students who are required to study the material. The problem of second tier students is that they employ a variety of learning strategies that are short term and expedient and do not foster deep learning (Tobias, 1990).[12] As Tobias suggests, the task in dealing with the "second tier" is to develop an active learning structure, which is adaptable to the needs of a broad range of students. The first step in adapting to students is the self-examination mentioned earlier in the discussion of the teaching portfolio.

Graduate faculty need to realize that graduate/student teachers are at a transition point between being a student and being a teacher. As participants in both roles, they are sensitive to the different stresses and needs of both and to the interdependence of students and teacher. As the reactions of graduate students show, because they are both students and teachers, they are in a unique position. As students they require the structure and guidance that allows them to formulate their goals and develop strategies to attain them. Graduate students typically criticize classes that they see as undirected. For example, one student's evaluation of the teaching and learning seminar found the day's readings of no use to him because:

> …they were neither explored nor reinforced. I depend on class discussions of readings to open my mind…I am still waiting for concrete instructions or suggestions on what to do to become a better teacher. (Graduate student 5)

Thus, like undergraduates, the graduate students felt themselves failing when their professor failed to provide structure, or they were unable to perceive and utilize the structure:

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as race, gender and ethnicity, which aids in the implementation of more inclusive classrooms.

[11] Unfortunately the practice of using inexperienced teachers to deal with the most underdeveloped portion of the student body is an all too common practice. Common sense should dictate that the most experienced teachers would be the best prepared to handle greater student needs. It is also a severe indictment of the system that these inexperienced teachers are given so little time to prepare for their initial teaching experience.

[12] Tobias points out that short-term strategies are typically manifested in activities such as note-taking techniques, classroom behaviors and study habits, which indicate a student's level and style of engagement in the class. Frequently, second tier students employ methods in reaction to the lecture style of instruction. The difficulty arises from the fact that lecture and its associated study techniques often do not engage the interests of second tier students.

> I felt really stupid after I read those chapters (twice) and still could not say what they were about. It did not occur to me that the problem was my unfamiliarity with that type of material; I just thought something was wrong with me. This was a great experience because after the professor's remark I realized how my students feel reading material of a type that is not familiar to them. The comforting idea that it was not me but the material renewed my energy for trying to get through it again. (Joanne Kropp)

As this shows, when the graduate student teachers realized their dual roles they became more aware of the needs of their own students and better able to adjust to meet those needs.

To match teaching style with learning style it is essential to know how college students learn. It is obvious in all of the teaching philosophies quoted above that these developing teachers, early in their formal development, had only a general somewhat anecdotal impression of how learning in students evolves. Pynes mentioned Bloom's Taxonomy, and Kropp described actual examples of learning activities for each stage of Bloom's Taxonomy. Bloom is a useful tool for more advanced teachers, but his Taxonomy is an outline not a detailed plan for the college classroom.

In using Bloom, Kropp, like Pynes and Gabbert, was proceeding as if addressing a monolithic group, not accounting for the diversity of the student body, which was common in many of the graduate students before they took the seminar. The teaching and learning seminar introduced them to Anthony Grasha's integrated model of teaching and learning (Grasha, 1996), which was developed under the influence of William Perry (Perry, 1970). Grasha and Perry are more immediately useful tools than Bloom, because they are more adaptable and focus upon the learning of college level students in clear and practical terms.

Perry views the central experience of a college education as the student encounter with the multiplicity of ideas and opinions that constitute the body of knowledge. The undergraduate's task is to learn to differentiate among opinions and to formulate conclusions that have the best application to particular problems. Perry empirically documents the process and demonstrates how the instructor can expect to encounter actual student learning. Understanding the cognitive skills of students is Perry's first principle in elevating them to a higher functioning level.

Students must be approached at their own levels. For example, Perry's college freshmen are in the discovery stage where each theory or its variance is a separate entity. It is the unequal value of each idea that differentiates between the bits of knowledge. Perry referred to this pitting of one idea against another as dualistic thinking, which seeks to discover the right answer (Culver and Hackos, 1982). Multiple choice questions or fill-in-the-blank answers satisfy students at this level. A problem for educators is that dualist students are not "their own people". They rely on the values and ideas of the most influential authorities in their previous lives (Culver and Hackos, 1982). In many cases therefore, the dualist is confused by the dialectic he/she encounters in the college classroom where answers are not fixed and conclusions are relative to the person or situation at hand. Unfortunately, in colleges and universities the dualistic tendencies of students are often reinforced by the instructional practice of the lecturing expert emphasizing the importance of a right or expected answer. As long as instructors perpetuate an atmosphere that prioritizes the right answer, progress in learning is slowed.

Perry's second stage of student learning is multiplism. Students encounter a great deal of uncertainty at this phase. The normally attentive college student encounters multiple answers for every question, which tests previous notions about the certainty of knowledge and threatens long-standing beliefs. As a result, puzzled by the apparent lack of standards, students either see

all ideas as equally valid or equally biased, becoming suspicious of the truth of any evidence or authority. Perry found that this could cause students to avoid a thorough consideration of alternative views and to develop opinions largely on the basis of whim or personal belief (Culver and Hackos, 1982).

Students who remain at the multiplistic level of learning are troublesome for history teachers. Some may reject the evidence-based method desired in good historical argument. Others can become discouraged, if they seek knowledge as a means to structure and intellectual certainty. History teachers need to realize these tendencies in students and act accordingly, because different objectives require different approaches. For example, the hard sciences and mathematics appear to be based more firmly in objective authority (Culver and Hackos, 1982). Typically science and math are taught with an authoritative rule-based perspective, and as Perry pointed out, this is why the hard sciences become so attractive to students who are uncomfortable with multiple degrees of certainty. A similar opinion about historical argument is often expressed by those who see higher education as the means to practical, applicable skills (Dewey, 1916).[13]

Students can remain at the dualistic and multiplistic stages and survive in college by reading class material and by listening to lectures. But application skills are made possible only when students progress beyond the mere marshalling of facts to the third stage of learning, relativism. At the relativistic stage, the student perceives that all knowledge and value are relative and contextual, and he/she must differentiate between concepts by using the evidence of what, when and how. Teachers must know what it means to guide their students to this stage.

The History Teaching and Learning Seminar leads graduate students along Perry's scale and allows them to gain experience in developing lessons which implement Perry's principles. For example, a typical lesson could consider an examination of the intellectual evolution of Charles Darwin's idea of natural selection. Darwin, the scientist, embarked on one of mankind's universal quests, the search for the beginning of things. His original authority was the world system whose multiple manifestations some people considered to be a complete, fully developed system—constant and unchanging. Religion had defined this as the work of a Divine Authority—this gave dualistic certainty. By Darwin's day, the discovery of mutable life forms in skeletons and fossils, geological anomalies and the changes in society had brought into question the unchanging nature of existence. This created the equivalent of multiplistic uncertainty. In response, during his trip around the world, meticulously recording his observations and experiences and then patiently reflecting on them, Darwin formulated a compelling argument for the adaptation of species based on differences in context and environment. He in effect realized the importance of understanding individual cases by observing and applying the evidence around them. Darwin exemplifies the mind that is able to distinguish between the relative values of ideas and concepts by marshalling evidence for the better concept in a particular venue. As a metaphor for a quality college education, Darwin's experience shows how the student achieves knowledge by committing to the true examination of authorities in order to synthesize results without relying on others.

Perry noted that students do not advance through the dualistic to the multiplistic to the relativistic stages and achieve a real synthesis of knowledge until they can make a commitment

[13] John Dewey is the great advocate of the practical application of education. Dewey has had significant effect upon American education because of his idea that in a democracy education is the tool that facilitates personal improvement. For Dewey the function of the tool of education is to integrate one's personal growth (culture) with one's function (vocation). He equated personal growth with skills training and considered their co-development as eminently practical for citizens of a democracy.

to an idea or value that affirms their own identity. Commitment entails the realization that all ideas and dreams are fallible, changeable and eventually in need of reevaluation. In the end, a true commitment to knowledge results in the realization that all opinions and values may change. Furthermore, Perry clearly articulates, unlike Bloom, that knowing is an intimate engagement not a detached encounter. The well-prepared teacher must realize the intimacy of the teaching/learning experience and that fostering commitment in students entails changing student behavior.

As true as Perry's stages of learning are for undergraduates, they are equally as valid for graduate student teachers. Graduate student teachers better engage their students when they commit to their own identity. Like undergraduates, graduate students have a set of learning behaviors and expectations. Because they were successful as undergraduates, graduate students have better developed and more deeply internalized learning behaviors. Unfortunately, since most of them were educated predominantly within the lecture format, they are also better repeaters of information, and reluctant to give up the lecture style. Their demonstrations of synthesis can become too much of a repetition of the syntheses of their professors and textbooks, not their own thought. But as both the teaching philosophies and the case studies show, through practice and the seminar's practicum they become more aware of themselves and consequently more aware of what their students will need.

In addition to treating young academics as students, the seminar also leads them to think and act as teachers by planning and organizing a college class. They must participate in group work, present mini-lessons to the seminar and teach in regular undergraduate classes. The difference from my career is that the graduate student teachers of the teaching and learning seminar are observed and given thoughtful feedback on their teaching performances. Consequently, when they take over in the classroom, either as teaching assistants or even as the teachers of record, they can articulate the goals and the structure and the synthesis—which modeling the actions of professors and individual trial and error did not prepare them to do. When diagnosing and addressing problems in the classroom, seminar participants are better prepared.

V. Creating a Theoretical Base.

To this point discussion has focused upon how the teaching and learning seminar assists graduate student teachers in transforming their observations and impressions of effective teaching into real actions that promote learning. Seminar topics included the usefulness of a coordinated job plan, the need for compatibility between teaching and learning styles and the need to understand the stages of student learning. The last point for consideration is the importance of a strong theoretical knowledge of what learning is and how it manifests itself.

In spite of the fact that student learning is well defined in books, articles, and schools of education, the graduate student teachers who came to the teaching and learning seminar were not informed about it. In general, they agreed that the study of history consisted of the examination of great texts and important documents in search of culturally defined ideas and values. As they saw it, the purpose of such study was to develop students who were able to comprehend the ambiguities and abstractions of ideas and the difficulties of clearly defining social values and principles. Basically, their language is no different from the definitions of learning in applied fields. However, the teaching philosophies of the students in the seminar did not articulate the

behaviors that demonstrate real learning in history.[14] Consider, for example, how Barbara Millis and Philip Cottell define learning: "…an active, constructive process that…'provides opportunities for students to **talk** and **listen, read, write**, and **reflect** as they approach course content through exercises which require students to **apply** what they are learning' (Millis and Cottell, 1998)." Until graduate students can articulate these basic activities, they are not ready to move on to formulating classroom techniques that cause students to do them.

There are two fundamental conditions that hinder the implementation of improved practices. The first is the traditional way that graduate students become conditioned to view content knowledge. The second is the study practices of modern students. Content knowledge in history is actually the raw material of deep learning. It is the information base that the student must learn to apply. The case studies show that competent graduate students realize this at a very early stage. They expect that in history classes students generally acquire a workable information base in two ways: (1) by assessing and reading diverse, complicated, and lengthy texts expressed in written or visual mediums (a skill transferable to any discipline) and (2) by oral transmission from professors and fellow students. But the graduate/student teachers were faced with a practical conundrum. Content was the thing most stressed in their graduate careers, and they were conditioned to imitate how their teachers passed content onto them—through lectures. Moreover, as products of a lecture system, and as their accounts reveal, graduate students use the lecture as the fallback position when undergraduates fail to use the other means of content acquisition, reading the texts.[15] And, as their frustrations show, the current generation of developing college teachers is faced with a growing body of students who cannot model their teachers well, because the current generation of undergraduates doesn't listen, read and reflect like graduate students.

Achieving a balance between making the content knowledge available and improving student skills is not easy. If undergraduates only master content, they have attained only the most rudimentary stage of learning, so young teachers perceive the need to use class time to instruct undergraduates in how to apply content. But lectures require large amounts of class time. How then can instructors balance time used to present content with class time needed to mentor students in the arts of listening, reflecting and applying historical information? In the case studies, the graduate students chose to model class discussions, because they saw discussions as one way to teach some historical application. But this also takes away from lecture time and content acquisition time. In response to these difficulties, the teaching and learning seminar offers an alternative strategy to new teachers: learning to motivate students to improve their content acquisition by more effective reading, and thereby free more class time to reflect and apply. This entails trying to change student behavior outside of class. In essence, the seminar offers new college history teachers an alternative job description.

Changing the job description of the college teacher to cover the task of modifying student behavior outside of the classroom requires a departure from traditional methods of college

[14] Kropp's concept of learning is more advanced and is actually the exception that proves the rule, because her conceptualization was formed after training in the Entering Students Program of the University College.

[15] Some graduate student teachers, as the case studies and classroom questionnaires show, hold tightly to the lecture format, configuring all activities around the basic core of their lecture presentation. In the 2004 class most of the graduate students would not deviate significantly from the lecture format when demonstrating their classroom techniques. When asked why, a typical response was that they could not understand how undergraduate students could progress without the material. There was basically no trust that students would or could acquire content without a lecture. This was also the main objection to using collaborative learning techniques such as small group work or problem based lessons.

teaching. This involves transforming the students from passive receptors of knowledge to active participants in the learning process. The key word is active. Learning that is active focuses on involving the student more directly in the learning process. It moves away from an emphasis upon the content to a focus upon developing students' skills to encounter the material. It shifts the responsibility for learning to the student and away from the teacher. The process can only be successful by modifying the preconception that the benefits of a college course accrue only within the walls of the classroom. Students must be made responsible for their learning at all times. And so we come back to where we began, to a consideration of cooperative/collaborative learning as a developmental model for aspiring graduate student teachers.

VI. Increasing student responsibility.

As a result of the experiences documented here, the teaching and learning seminar now requires the graduate student teachers to use the self-evaluation/student assessment planning model discussed so far. This is not an unqualified endorsement of collaborative techniques over other more traditional methods such as a lecture/discussion format. The advantage of emphasizing collaborative learning in the seminar is that it provides a context within which the graduate student teachers can employ active learning techniques to test the kinds of teaching methods that elicit student learning. And more importantly, it gives them the knowledge and skills that will allow them to develop teaching practices that are compatible to their own teaching preferences.

Central to the seminar activity are the four elements of team-based learning presented by Larry K. Michaelsen, Arletta Bauman Knight and L. Dee Fink in their book, *Team-Based Learning: A Transformative Use of Small Groups:*

1. groups must be properly formed and managed;
2. students must be made accountable for their individual and group work;
3. group assignments must promote both learning and team development;
4. students must have frequent and timely performance feedback (Michaelsen, Knight, and Fink, 2002).

These four essential elements of team-based learning are useful directives because on the one hand they embody the seven principles for good practice articulated by Arthur W. Chickering, Zelda F. Gamson and Louis M. Barsi (Chickering and Gamson, 1987). On the other hand, they are actual applications of foundational elements required in every effective teaching encounter and adaptable to most teaching styles.

For example, element one emphasizes the absolute necessity of pre-planning and organization in the creation of an effective learning environment. It is important in every classroom, and, when combined with the planning embodied in the portfolio activities of the seminar, it brings home the necessity of organization and preparation in every phase of the teaching process. In the same way, Michaelsen's element three reinforces the importance of incorporating process learning with content acquisition as discussed above. Then there is the focus of this part of the paper, element two, making students accountable. Accountability is the vehicle that moves students to work to change their behavior outside of class, saving time for in class activities, which lead them to become more effective learners.

Michaelsen's team-based methods modify student behavior by employing a technique called the Readiness Assurance Process (Michaelsen, Knight and Fink, 2002). The Readiness Assurance Process initiates student accountability by informing students in the very first

moments of a class about the objectives and the organizational framework that is being used to achieve class goals. This information empowers students to adapt their personal learning strategies to the class plan, reinforcing the idea of personal responsibility for the work at hand. In a typical college course, extra-class readings are a part of the class plan. With the Readiness Assurance Process students are tested on the concepts introduced by the readings at the start of each new class segment or lesson. Individual students initially take a test (Michaelsen recommends multiple choice tests) on the assigned readings followed immediately by the team attempting the same test as a group. The theory is to add to the accountability students normally have to the instructor in their personal work by making each student responsible to the other members of the team as well. Students are also given formal opportunities to evaluate team members. The principle is that peers are more aware of the efforts of their fellow students and that social pressure is a significant and more pervasive motivating force for students than the threat of the professor's grade alone (Michaelsen, Knight and Fink, 2002).

The lesson learned from the Readiness Assurance Process is that strict accountability standards and peer review are powerful methods to modify stubborn student behaviors. Frequent and timely feedback (Michaelsen's fourth point) reinforces student responsibility and promotes effective learning. Some might call it enforcement; I would prefer to use the term reinforcement. Like anyone else, students need reasonable assurances of success in the activities they undertake—this is one type of reinforcement. Therefore, all assignments, such as essays or exams or the Readiness Assessment Tests, must be structured in a fashion compatible with student intellectual levels and student learning styles (Michaelsen, Knight and Fink, 2002). They must include clear instructions on how students are to perform. Recall the discussion regarding student assessment above. Again, this applies to whatever teaching style the instructor uses. A second type of reinforcement is the creation in students of the expectation that their accountability is constant, that their learning will progress when they are prepared to progress, and that they will be held accountable in every class. Team based learning works well in this regard because it requires the students to produce a measurable product for every activity, and the team format can be monitored at every stage.

Maintaining accountability in students promotes responsibility among team members, a useful social skill, which enables students to work effectively with others. By working with others on a regular basis, students encounter different ideas and approaches, enhancing their ability to distinguish among multiple ideas. This is Perry's fourth level of knowing, critical thought, what every college instructor desires. It is "…deliberate, conscious thought or reflection that is directed toward accomplishing some goal …It has some purpose such as solving problems, making decisions, or applying information to our lives…(Grasha, 1996). " It is reasoned thought in that it enables one to consider a broad range of information relevant to an issue and then to develop an informed conclusion. And "critical thinking evaluates in a constructive manner more than one side of an issue as well as the positive and negative attributes of a situation (Michaelsen, Knight and Fink, 2002)."

VII. Results.

What have been the results when these principles have been applied in the classroom? In the end, it is the graduate student teachers themselves who are the measure of the process.

A. Patrick Pynes: December, 2004.

Cooperative teaching with learning groups has increased my students' success and improved my effectiveness as their instructor. Groups allow me to get to know the students and discover what they are thinking, so that I can move the class in a direction that encourages them to learn. Since I have used the readiness assessment process, grades have continually risen on the quizzes. We cover more material than when I was the talking head at the front of the class.

Many teachers have asked me at what level this process works. I use it with college freshmen as well as in a junior level humanities course, which I teach during the summer. I also use it with my high school students with great results. This year, I have convinced an eighth grade history teacher to try my approach. Using a somewhat modified form, he has reported good results.

Employing the process takes work, but by using it I have learned to listen to my students and to understand their responses. The only way to do this is to know the students beyond faces in a lecture. We live in a world that is different from just ten years ago. Students have so many more potential distractions. Understanding the principles of active learning has helped me to compete with some of the things which draw my students' attention away from their studies. I think I have become a better history teacher.

B. Ann Gabbert: January, 2005.

While preparing for my first semester as instructor of record, a one year doctoral fellowship allowed me to write all of my own lectures using readings from my comprehensive exams, which incorporated my own research. It also gave me time to explore active teaching methods and to utilize techniques from the teaching seminar in the classroom.

The graduate teaching seminar helped me to mature as an instructor. By using Angelo's and Cross's Teaching Goals Inventory I realized that, for me, although I believed that students should have a basic knowledge of historical events, my main concern was to foster higher-order thinking skills. Consequently, my stated teaching goals focus on students while guiding them beyond Perry's dualistic and multiplistic stages of intellectual development. Through the use of critical analysis of primary documents within their historical context, construction of simple essay arguments that use historical evidence, and differentiation between fact and interpretation, students begin to understand that history is relative in the sense that "knowledge" is based on one's perspective. The seminar class also taught me to think about the way students learn actively and passively, and how diversity in learning styles affects the classroom setting.

Because I want my students to progress beyond a simple dualistic approach to history, I always begin the first class with a session on "what is history?" At the same time that the students are learning the differences between primary and secondary sources, I introduce the idea of historiography and how historians interpret events and sources based on their own perspectives or cultural baggage. I have discovered that the students respond well to examples of changing interpretations of history, especially when they are involved by playing the role of "historian" through the analysis of primary sources. The second class session contains opposing viewpoint primary document analysis where the students discuss possible hidden motives or agendas behind the written word or the visual medium. I want my students to internalize the processes that will allow them to differentiate between "fact" and interpretation in our own

contemporary existence (i.e. newspapers, magazines, etc.). My goal is to guide students to a stage of complex understanding of the relativism of historical interpretations.

While I believe that it would be difficult to forgo lectures entirely in a freshman survey class, I have found that the students respond very well to mini-lectures prompted by Socratic method questions and interspersed with small informal group discussions of historical documents. These discussion exercises have multiple purposes and the students (and myself) enjoy the opportunity for a more active learning process than simply listening to lectures. I find that the use of sources, other than textual, appeals to diverse learning styles, and I consistently get high student ratings for my use of multimedia. The teaching seminar helped me realize the necessity of engaging the students as active participants in the process of acquiring historical knowledge, and prompted me to develop methods of instruction that would allow my students to develop historical understanding while integrating new factoids within their prior knowledge framework.

C. Joanne Kropp: January, 2005.

Last fall, armed with the results of Tony Grasha's self-assessment test and batches of readiness assessment quizzes, I eagerly planned my lectures. The semester was a disaster. What went wrong? First, converting my lectures into discussion questions was difficult for me. I probably never did design really good questions. Second, most students never grasped the purpose of the group discussions. They did not discuss the questions; they just went with whatever answer most people "guessed" was right. They refused to take notes on discussions in the small groups or even when the whole class went over the work, thus they did not have the requisite information to do well on the final exam. As a result of the Teaching and Learning Seminar, I realized that the problem was that the "reward" for thinking about the discussion questions was not immediate. It would be weeks before they would even begin their papers, and then it was another week before I returned them. And lastly, the scores on the readiness assessment quizzes were dreadful across the board. Group scores were always higher, but never high enough to offset the very low individual scores. Thus many students, who did well on other assignments, became frustrated.

This semester I have made numerous adjustments. In my large classes I am now more aware of students' multiple learning styles, so I "mix up" class sessions. I give mini-lectures and use visuals (slides, maps, handouts). I put the students into ad-hoc groups to discuss the chapter themes, or to discuss specific questions about a document. Students receive the questions in *advance* and then arrive in class having to work out an answer as a group. For a kinesthetic dimension to these auditory and visual teaching methods, I have students write results on the board, or illustrate their ideas by drawing pictures or inventing symbols. I have also asked them to role play. To put more pressure on students to be ready for class, I give them limited time to work in the small groups. The quizzes are now only given on an individual basis so the students don't have a group score to rely on if they don't prepare.

The Teaching and Learning Seminar and the grand experiment last semester helped me to know that there are as many methods for teaching as there are students with different needs and abilities. *All* lecture or *all* discussion/group work is not appropriate for either my students or me. I learned that better assessments could have allowed me to change what I was doing by pinpointing why the students weren't doing well. I am now more aware that it is up to me to plan creatively in order to reach as many students as possible, but it is also up to the students to

prepare for class and to engage with the material The Teaching and Learning Seminar has given me a bigger arsenal of ideas to draw upon. In a semester that did not go well, I could look back at what I learned for something to help me with my students.

D. Conclusion.

Good teaching is not simply the result of modeling former instructors. Teaching has as its ultimate goal the learning of students, but teaching and learning are not isolated processes. When done well they are an intricate melding of content, the individual preferences of teacher and students, learning theory and teaching technique. Good teachers evolve from the trial and error of traditional graduate programs, but the process is inconsistent and uncertain. The current academic climate requires targeted programs, which intervene early in the graduate student's career to assist future college instructors to develop a comprehensive career plan and to understand student learning styles and teaching theory. The History Teaching and Learning Seminar represents the efforts to improve the teacher training of graduate students in the History Department at the University of Texas at El Paso.

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