Fall 12-17-2011

Junior Faculty Perceptions of their Doctoral Level Teaching Preparation: A Cross Disciplinary Examination

Franz Reneau
fhreneau@gmail.com

Junior Faculty Perceptions of their Doctoral Level Teaching Preparation: A Cross Disciplinary Examination

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Educational Administration

by

Franz H. Reneau

B.Sc. University of Belize, 1997
M.B.A. Western Kentucky University, 1999

December, 2011

Dedication

To my wife, Dr. Paulette Reneau, who inspires me to be my best, I will forever be thankful that God has blessed my life with your presence. Thank you for believing in my ability to do this work and encouraging me to pursue it with steadfast commitment and a desire to make a difference. To my dearest Alessandra, your presence in my life has focused my resolve and has ignited a passion for quality education across Pk-16+ continuum. (Without both of you, I am nothing.)

Acknowledgements

If is my belief that our creator is responsible for all. I give honor and thanks to God with whom I grew closer through this process.

My time here at the University of New Orleans has truly been a labor of love and there are many people who have been along with me for the journey. With great pleasure and esteemed gratitude I thank you all. I am deeply grateful to Dr. Marietta Del Favero, my major advisor/dissertation chair and mentor. Her reputation for high standards and excellence certainly precedes her. She has inspired my development as a scholar in ways too numerous to mention. Under her tutelage I matured tremendously as a researcher and a critical thinker. I am grateful for her friendship and support of my development as a scholar.

I am also very thankful to my committee members (Dr. Andre Perry, Dr. Kyle Scafide and Dr. Amy Thoreson) for their feedback, patience, constant encouragement and support. They provided helpful feedback that has improved the quality of my dissertation, and have contributed volumes to my understanding of the field. I am especially thankful to Dr. Amy Thoreson, my methodologist, for her contributions in developing within me a critical eye for good research. Thanks also to Dr. Tammie Causey for her feedback during the dissertation proposal stage and also for her support of my development as a scholar. Many thanks to Dr. Brian Beabout for affording me collaborative opportunities that have broadened my understanding of leadership in a K-12 environment. Thanks also to the Graduate School, University of New Orleans and the University of New Orleans College of Education and Human Development for funding that supported this dissertation work. I am also very thankful to the faculty, staff and graduate students in the Department of Educational Administration and Leadership for their support and camaraderie. I am particularly thankful to Mrs. Eve Brooks and Mrs. Beverly Robertson for

their friendship and support during this process. Thanks for helping to keep me spiritually grounded.

I am forever indebted to my friends and colleagues Rashida Govan, Victoria Palmisano, Shannon Chiasson, Donalyn Lott, Jade O'Dell, Deidra Foret, Danny Chiang and Kelly Owens. Over the years these individuals have proven invaluable in all aspects of my graduate school experience. I will truly miss the lunch dates and round table discussions about the field of education leadership and research.

I would also like to extend my sincerest thanks to the junior faculty community from SREB Four-Year 1 institutions who completed the survey and made this dissertation work possible. Your perceptions of your doctoral level teaching preparation collectively have informed our understanding of this phenomenon from a disciplinary consensus lens.

It Takes a Village

It truly takes a village to raise a child. There are many who have supported and walked alongside me at some point on this journey to academic enlightenment. This journey certainly did not start with me, nor will it stop with me. I give homage to my ancestors who from one generation to the next supported education as a means of responsible citizenship. I can only hope that I am able to bestow to the next generation what has been given to me.

I would especially like to thank my parents Dr. Cecil Reneau and Nina Reneau for instilling in me the importance of an education. I am who I am because of the values they instilled in me as a child. I thank you for your unconditional love and support. Know that if it was not for your labor of love, I would not be where I am today. To my little sister Heather Reneau, thanks for being my sounding board and holding me in such high esteem. Your unconditional love and support has helped to carry me through many rough patches. It is my

hope that one day I will have the opportunity to return to you what you have so unselfishly given to me over the course of this journey.

I am thankful to my father and mother in law, Mr. Orton Clarke & Mrs. Elaine Clarke for having welcomed me into their family and supporting me in my decision to pursue this journey. Your interest in my research and training was evident in the many telephone conversations and table discussions we exchanged over the years.

Many thanks to my uncle and aunt Mr. Dennis Renear & Mrs. Kay Renear, for opening your hearts and your home to me so as to allow me the opportunity to begin this journey. I will forever be in your debt.

Finally, I would like to thank my wonderful wife Dr. Paulette Reneau and my daughter Alessandra Nichole Reneau, for their unconditional love and support throughout this journey. The literature on doctoral students attrition suggest that any major life changing events, such as having a child while pursuing graduate education, places an unbearable strain on an already arduous process. I disagree. I believe that I have succeeded because I have you in my life. When times were tough, and the journey I was travelling seemed insurmountable, knowing that I had both of you in my life kept things in proper perspective.

Table of Contents

List of Tables

List of Figures

ABSTRACT

It seems reasonable to assume that the realization of the doctoral degree denotes that one is proficient in college teaching. However, the literature indicates that doctoral programs are failing to adequately prepare doctoral students for teaching in collegiate settings. The seminal work on doctoral student experiences suggests that doctoral programs are adequately preparing doctoral students for their research function, but concerns emerge around teacher preparation. Four bodies of literature inform this study: (a) the literature on the teaching role in higher education (b) the literature on doctoral students' experiences as it relates to their teaching preparation (c) the literature on new faculty socialization (d) and the literature on the nature of academic disciplines and their differences as it relates to faculty work. The study fills a gap in the literature by examining junior faculty perceptions of their doctoral level teaching-related preparation by taking a cross disciplinary approach of eight disciplines (four high consensus and four low consensus). The omnibus question this study seeks to address is whether or not there are discipline differences in junior faculty perceptions of their doctoral level preparation for college teaching. The study employed a quantitative approach in collecting data using a survey design. The sample for the study was delimited to junior faculty in political science, sociology, psychology, economics, physics, chemistry, biology and geology from the Southern Regional Education Board (SREB) Four-Year 1 institutions. An instrument developed by Hall (2007) which measures counselor educators' perception of their doctoral level teaching preparation was modified for the purpose of data collection. Contact information for junior faculty in selected disciplines was collected from SREB Four-Year 1 institutions. Findings reveal an anti-teaching culture embedded within research institutions and also significant discipline differences in overall perceptions of doctoral level teaching preparation. The findings of this study provide

higher education leaders and faculty with empirical results which could inform the training of doctoral students for their college teaching role.

Discipline Difference, Teaching Preparation, New Faculty, Doctoral Level Teaching Preparation

CHAPTER 1

INTRODUCTION

For decades the higher education community has characterized faculty work as revolving around teaching, research and service (Hutchings & Clarke, 2003; Serafin, 1991; Tierney & Rhoads, 1993; Washington & Honoree 2009). Although the relative emphasis given to these three areas varies based on institution type (Washington & Honoree, 2009), an earlier study (Higher Education Research Institute, 1999) shows that teaching consumes most of faculty members' time. The Higher Education Research Institute posits that on average college faculty taken as a group within the post secondary context, spend 59% of their time teaching, 23% of their time engaged in service and other administrative responsibilities and 18% of their time dedicated to research. According to Fink (1992), while this traditional characterization of faculty work has prevailed, many new faculty members within higher education are not prepared to perform these roles. It seems reasonable to think that the achievement of the doctoral degree denotes that one is and should be prepared for college teaching. While there is a substantial amount of literature supporting the notion that doctoral completers are proficient with their newly developed research function (Austin, 2002a; Austin, 2002b; DeNeff, 1993; Campbell, Fuller & Patrick, 2005), of new faculty who secure jobs in post-secondary settings, few receive any formal training in pedagogy (Association of American Colleges, 1993). Golde and Dore (2004) posit that of 4,111 doctoral students surveyed at 27 institutions, 63.7% reported that they did not feel prepared to teach a lecture course. It is arguable that the lack of emphasis on teaching preparation is a result of the traditional notion that most doctoral programs produce researchers.

Today's undergraduates are aggressively being recruited to institutions of higher education and assured that teaching is important and that it is a priority (Boyer, 1990); however, this perception is not without scrutiny. Viewed from a socialization lens, Lapidus (1997) and Adams (2002) believe that the current format of graduate education with its emphasis on research training fails to adequately prepare doctoral students for life in academe.

Higher education constituents both within and outside the academy - higher education administrators, faculty, leaders of professional organizations, business and industry leaders - have challenged the traditional emphasis and practices of doctoral education in adequately preparing prospective faculty members for work within the academy (Golde & Dore, 2001; Nerad, 2002; Wulff et al. 2004). Golde and Dore (2001) make mention that overly specialized research training across fields has resulted in future faculty being ill-equipped to perform teaching roles. The current literature suggests that improving teaching is a pressing and current need in light of higher education's attention to enhance the undergraduate experience (Golde & Dore, 2001; U.S. Department of Education, 2006).

While some doctoral programs have realized the importance of preparation for the academy by embedding academic pedagogy courses such as *The Academic Profession* and *College Teaching* within the curriculum, the reality is that many doctoral completers go through their entire doctoral training without any knowledge gleaned from courses such as the aforementioned preparatory courses. It is arguable that if a doctoral program does not adequately provide training for teaching, then the doctoral degree may not sufficiently be preparing graduates for successful entry into the academic profession. While the need for change surrounding teaching preparation has been adequately addressed in the literature (e.g., Austin, 2002b; Golde & Dore, 2001; Golde & Dore 2004; Jarvis, 1991; Meacham, 2002; Nerad,

Aanerud & Cerny, 2004; Nyquist et al. 1999; Nyquist & Wulff, 2001; Silverman, 2003; Wulff & Austin, 2004; Wulff, Austin, Nyquist & Sprague, 2004), empirically very little is known relative to the kinds of experiences that prepare doctoral students for their college teaching role. In order to address what is being done in doctoral programs to prepare graduates to teach at the post-secondary level, the study takes a cross disciplinary approach in examining junior faculty perceptions of their experiences during doctoral training and the effectiveness of those experiences in preparing them for teaching.

Statement of the Problem

Doctoral programs at US institutions of higher education are failing to adequately prepare doctoral students for teaching in collegiate settings (Jarvis, 1991; Jones, 2008; Meacham, 2002; Nerad, Aanerud & Cerny, 2004; Silverman, 2003). Ponder this statement: "Doctoral candidates say they don't get enough lessons on how to teach though their first job is likely to be in a college classroom" (Wertheimer, 2001 p. 1). Results of a study conducted by Fagen and Wells (2002) revealed that of 32,000 doctoral students surveyed at almost 400 institutions of higher education, almost 50% reported that they did not receive appropriate preparation for teaching. Additionally, 49% of teaching assistants (TAs) reported that they did not receive appropriate supervision to help them improve their teaching. In a similar study, Austin (2002b) found that most participants who were TAs in her qualitative study reported not experiencing sufficient guidance and training in many aspects of teaching. The lack of teaching preparation at the doctoral level and the matriculation of doctoral completers into the academic profession could have an adverse effect on the undergraduate experience and college retention rates if left unaddressed. Scholars such as DeNeff (1993) posit that doctoral programs should develop within doctoral students both research competencies and the ability to transform research into

challenging and effective teaching. Silverman (2003) claims that although doctoral programs are aware and concerned about the lack of teaching preparation, very little is being done to address the problem. By failing to adequately prepare doctoral students for teaching in the academy, doctoral programs are both failing their students and the millions of undergraduates and their families who are counting on new faculty to be effective in the classroom (Meacham, 2002).

Purpose of the Study

The purpose of this study is to increase our understanding of junior faculty perceptions of their doctoral level teaching preparation. The study takes a disciplinary approach in exploring junior faculty perceptions of the training they received in doctoral programs for teaching in collegiate settings. The rationale for a disciplinary approach was influenced by Braxton and Hargens (1996) who noted that low-consensus fields are more oriented to teaching than high consensus fields, which explains the more likely use of TA's in high-consensus disciplines. The researcher decided to pursue a disciplinary approach in this study as empirical studies have found differences in faculty work across disciplines (Biglan, 1973a; Becher, 1989; Jacobsen, 1981; Lodahl & Gordon, 1972). This approach will aid the researcher in closely scrutinizing the data set for variations in perceptions across disciplines. For the purpose of this study, junior faculty status is defined as any new, tenure-track faculty member within his/her first faculty appointment and who has been in position for a maximum of three years. This study - the argument for which is based in the works of Biglan (1973b), Golde and Dore (2001), Hall (2007), Kuhn (1970), and Meacham (2002) - takes a modified researcher-designed survey approach. The instrument was electronically distributed to junior faculty in the Southern Regional Education Board (SREB) Four-Year 1 institutions. The survey, which included items associated with the teaching role and preparation, consisted of participants' ratings of how

effective they believe these experiences and activities to be, and how they relate to their overall perception of teaching preparedness. In addition to the likert-type items incorporated into the survey, a qualitative open-ended question section solicited additional information relative to what was done or perhaps what could have been done during doctoral training to better prepare junior faculty for teaching in the academy.

How This Research is Different

This study on junior faculty perceptions of their doctoral level teaching preparation is unique as it takes a disciplinary approach in exploring teaching preparation. While the literature on doctoral students' experiences/socialization support the notion that doctoral students do not feel adequately prepared for teaching (Austin, 2002b; Golde & Dore, 2001, 2004; Meacham, 2002; Nerad, Aanerud & Cerny, 2004; Nyquist et al., 1999; Nyquist & Woodford, 2000; Silverman, 2003), an obvious limitation of these studies is the sample, which is primarily composed of doctoral students. It is arguable that doctoral students actively pursuing their terminal degrees cannot accurately assess their own proficiency in being trained for college teaching. Second, while the literature on discipline differences has found variations in faculty work relative to teaching and research (Becher, 1989; Biglan, 1973a; Braxton & Hargens, 1996; Lodahl & Gordon, 1972; Smeby, 1996), a review of the higher education literature revealed none that have taken a similar approach to that of the researcher in exploring junior faculty perceptions of their doctoral level teaching preparation using a disciplinary lens. This claim is further supported in the literature by Hall and Hulse (2010) who have suggested that there have been no known empirical studies employing a cross disciplinary approach that have examined the current state of doctoral level teaching preparation.

Rational for disciplinary approach

Beyer and Lodahl (1976) posit that "disciplines provide the structure of knowledge in which faculty members are trained and socialized before they are input as members of the university" (p. 114). Discipline, according to Braxton and Hargens (1996), is a major source of fragmentation in academe. Studies have found differences among faculty in various academic fields (Becher, 1989; Whitley, 1984). These differences among faculty members have been explained by the dissimilarity between fields of learning. Biglan (1973b) posits that lumping together data from different areas within academe may provide an inaccurate account of the phenomenon under investigation. Because disciplines differ along many lines (hard vs. soft, high consensus vs. low consensus, paradigmatic vs. non-paradigmatic), taking into consideration the genuine differences in disciplines is an integral first step in undertaking any study using faculty as a sample.

Research Questions

Based on the problem and gaps in the literature previously discussed, the omnibus question this study seeks to address is whether or not there are discipline differences in junior faculty perceptions of their doctoral level preparation for college teaching. In exploring this question, the study was guided by the following research questions:

Research Question #1 – What are those activities by disciplinary consensus that junior faculty engaged in during their doctoral studies that prepared them for college teaching?

Research Question #2 – Based on disciplinary consensus, what relationship exists between activities perceived to be effective in preparation for teaching and junior faculty perceived level of overall preparedness for college teaching?

Research Question #3 – Do junior faculty perceptions of the effectiveness of preparation for teaching sub-roles differ by disciplinary consensus?

Research Question #4 – Do junior faculty perceptions of overall preparedness for college teaching differ significantly by disciplinary consensus?

Conceptual Framework

The conceptual framework for this study was largely inspired by the pioneering work of Thomas Kuhn (1970) and his concept of paradigm development. Kuhn believed that there are several factors which set disciplines apart to include the level of agreement within a field relative to which problems are important to study, which methodological approach should be applied, what criteria are applied to determine acceptable findings and which theories are proven. Based on Kuhn's work, fields with highly developed paradigms are marked by high consensus (e.g., chemistry, mathematics, geology, physics), while low consensus on these knowledge-related indicators characterize fields with less developed paradigms (e.g., social sciences, education, humanities). Consistent with Kuhn's conception of disciplinary consensus is Finnegan and Gamson's (1996) belief that disciplinary fields are "demarcated knowledge domains with distinctive epistemologies and methods" (p.152).

Braxton and Hargens (1996) assert that most disciplinary differences are related to variations in scholarly consensus (high vs. low consensus). In support of this notion, Biglan (1973b) posits that lumping together data from different disciplinary fields within academe may provide an inaccurate account of what is being investigated. Because the training faculty receive in preparation for work within the academy occurs within the context of the discipline, adopting a disciplinary lens in exploring the problem of teaching preparedness is a natural and inevitable first step in this conceptual framework.

Junior faculty perceptions of their doctoral level teaching preparation could better be understood using a disciplinary lens, as training for work within the academy occurs within the confines of the discipline. In his research, Meacham (2002) identified factors which he believed could serve to better prepare doctoral students for teaching in collegiate settings. These factors included: being mentored by faculty, spending time following faculty through a typical day on campus, participating in high level graduate seminars on teaching and faculty life, preparing a course syllabus and having it critiqued, being supervised in teaching by excellent teachers, engaging in self-assessment and self-reflection as a teacher and potential faculty member, and assembling a teaching portfolio that includes a statement of teaching philosophy. Meacham's contributions are consistent with those advanced by The Preparing Future Faculty Programs which is a joint undertaking of the Council of Graduate Schools and the Association of American Colleges and Universities. Sponsored by the Pew Charitable Trust, the National Science Foundation and private donations, the program aims to transform the preparation of aspiring faculty for their future careers in academe. The goal of the Preparing Future Faculty Program is to pay particular attention to teaching preparation by offering opportunities for doctoral students to develop their teaching abilities and exposing them to a wide variety of activities that capture the various elements of the teaching role in higher education. A review of the literature relative to the problem of teaching preparedness has revealed several themes which are consistent with the aforementioned factors believed to aid in teaching preparation (see Table 1).

Table 1
Literature Supporting Activities believed to be Effective in Teaching Preparation

Themes	References
Taking a course or seminar on College Teaching	Given et al., 1998; Hall, 2007; Holdaway et al., 1994; Lambert & Tice 1993; Main, 1994; Meacham, 2002; Nyquist, 2001, Prentice-Dunn & Rickard, 1994; Richlin, 1995; Richard et al., 1991; Seidel & Montgomery, 1996; Silverman, 2003; The Preparing Future Faculty Program (2010); Valentine et al., 1998; Waldinger, 1990; Wilkins, 1997
Teaching a class	Hall, 2007; Lambert & Tice, 1993; Levin, 2008; Main, 1994; Nyquist & Wulff, 2000; Silverman, 2003; The Preparing Future Faculty Program (2010); Rice et al., 2000
Mentoring (Receiving feedback on teaching, discussions about teaching philosophy)	Austin, 2002 a, 2002b; Boyle & Boice, 1998; Campbell et al., 2005; Golde & Dore, 2001; Hall, 2007; Jarvis, 1991; Main, 1994; Meacham, 2002; Nyquist & Wulff, 2000; Rice et al., 2000; Silverman, 2003; The Preparing Future Faculty Program, 2010; Wulff, 2004
Self-Reflection	Austin, 2002a, 2002b; Hall, 2007; Meacham, 2002; Wulff, 2004;
Opportunities to engage in all aspects of research & developing a range of teaching skills	Austin, 2002a; Golde, 2004;

A review of the literature to determine the characteristics that inform college teaching revealed five themes that are consistent with the college teaching role namely advising/mentoring students, course design, assessment, instructional approaches (e.g., lecturing) and teaching to diverse learning styles (McKeachie, 1999; Nelson, 2003). When the themes that support better teaching preparation are aligned with the before mentioned sub-roles of teaching, it becomes obvious how preparing doctoral students for college teaching can result in better teachers in higher education. Together, they support the importance of teaching as part of the doctoral experience. While there is an exhaustive list of scholars who have advanced recommendations for better teaching preparation, a review of the literature revealed none that

aimed to test the impact of those experiences from a disciplinary lens. As can be derived from Figure 1, junior faculty perceptions of their doctoral level teaching preparation are rooted in the discipline and believed to be tied to engagement in activities which support development in five core teaching sub-roles. This study will test these activities associated with the teaching roles through a disciplinary lens, by exploring whether or not junior faculty had these experiences and if so, how effective they were in preparing them for teaching in the academy.

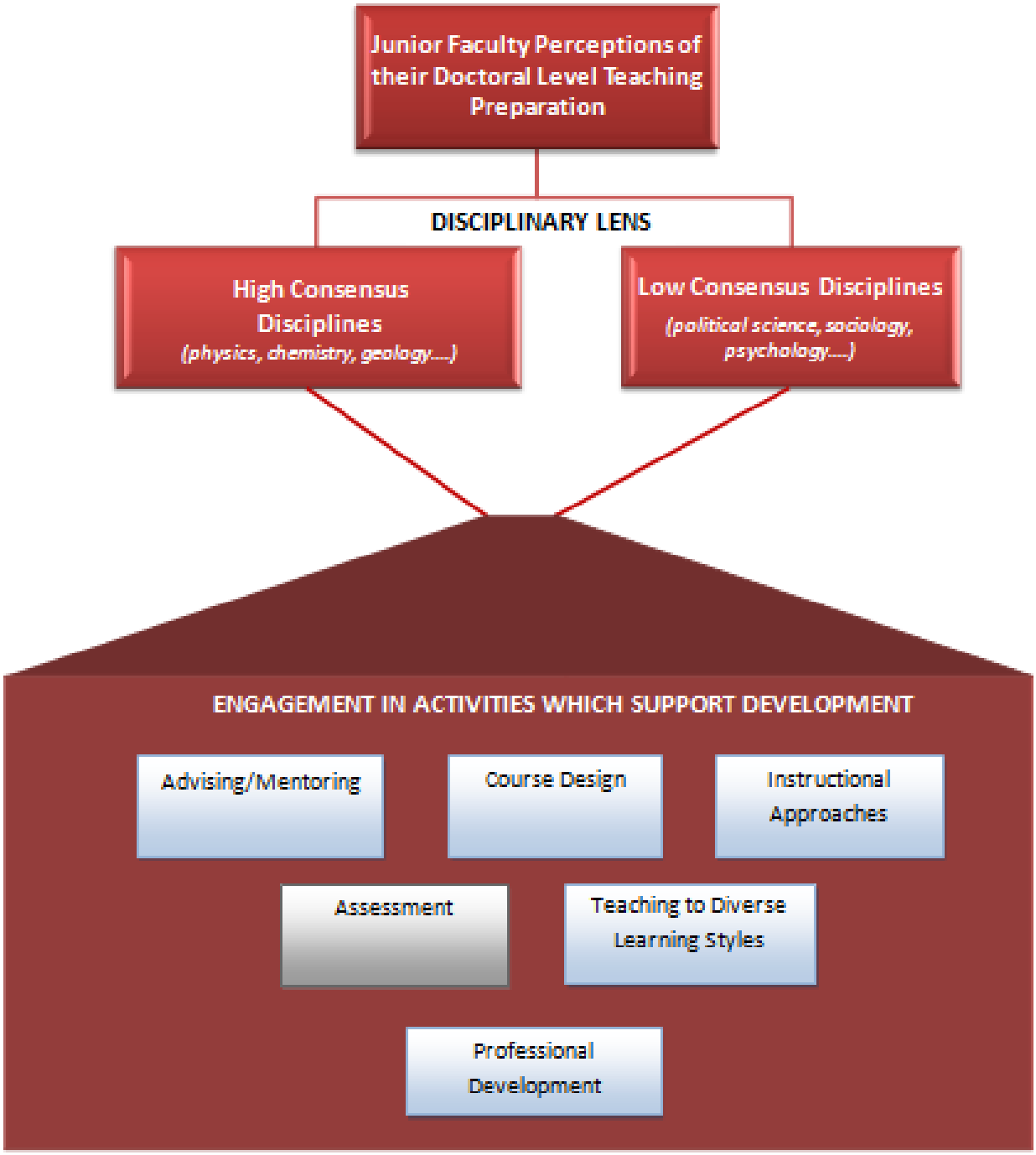

Figure 1. Visual Representation of Conceptual Framework developed based on a review of the literature. It illustrates that junior faculty perceptions of doctoral level teaching preparation is rooted in the discipline and tied to engagement in activities which support development in the above mentioned teaching sub roles/professional development and believed to result in better preparation for college teaching.

Significance of the Study

The study is important as it seeks to address a gap in the literature. Researching the effectiveness of factors that prepare faculty for teaching is important to those seeking careers in academe in addition to providing information which could augment anticipatory socialization (i.e., socialization that typically begins when a student enters doctoral training) to the academic profession. As teaching is a complex role which covers a wide variety of activities, the study is significant as results could help in better understanding preparation for teaching. Within the higher education literature, many authors have expressed concerns with doctoral students' teaching preparation (Austin, 2002b; Golde, 2006; Golde & Dore, 2004; Meacham, 2002; Nerad, Aanerud & Cerny, 2002; Nyquist et al. 2001; Silverman, 2003). Conversely, studies have found differences among faculty members in different academic fields relative to research and various aspects of teaching (Biglan, 1973a; Becher, 1989; Braxton & Hargens, 1996; Lodahl & Gordon 1972).

Given the call for higher education to be more accountable for student outcomes, better understanding teaching preparation is an integral component in improving the quality of education at the post-secondary level. This study, which took a disciplinary approach, will allow junior faculty to reflect on their doctoral experiences as preparation for teaching. The study has the potential to inform the training of doctoral students for teaching in academe in addition to contributing to teaching effectiveness in colleges and universities. The results of the study could provide higher education administrators, professional associations and doctoral curriculum committees with empirically based knowledge which can aid in understanding the problem of teaching preparedness. This study will contribute to the overall knowledge base of higher

education faculty and fill the literature gap on junior faculty teaching preparedness from a disciplinary perspective.

Delimitations of Study

The delimitations of a study are those characteristics that narrow the scope of the study (Creswell, 2003). The study is delimited to junior faculty who for the purpose of this study is defined as any tenure track faculty member who has earned a terminal degree, is within his/her first faculty appointment and who has been in position a maximum of three years. Additionally, the study is delimited to junior faculty in political science, sociology, psychology, economics, physics, chemistry, biology and geology from the Southern Regional Education Board (SREB) Four-Year 1 institutions. Limiting the population to SREB Four-Year 1 institutions is intended to minimize the inherent differences that typically exist across institutional type. Defining the population of interest in this way was done in an effort to represent and control for institutional differences, thereby allowing for more close scrutiny of disciplinary differences. Additionally, SREB was selected as they are amongst the largest cooperative initiative and first interstate compact for education, working on improving teaching learning and student achievement at every level of education in the south.

Organization of the Study

This chapter provided an introduction to the problem, purpose and significance of the study, a discussion of how the study is different, in addition to a rational for a disciplinary approach to exploring the problem. The chapter introduced the research questions and provided a context for the study by advancing a conceptual framework and literature which will support the modification of an existing instrument to examine the research questions. The delimitations of the study were addressed. The following chapter includes a review of the extant literature

aimed at providing the reader with the researcher's logic behind the need for proposing such a study. Chapter Three 'The Methodology' provides detailed information relative to subjects, setting, how the instrument was modified, and how data was collected and analyzed. Chapter four and five include an analysis of the data gathered to address the research questions and discussion of findings.

CHAPTER TWO

REVIEW OF LITERATURE

This section of the dissertation highlights and summarizes the extant literature relative to the problem under study. It also provides a context to help put the problem into perspective. Four bodies of literature inform this study: (a) the literature on the teaching role in higher education (b) the literature on doctoral students' experiences as it relates to their teaching preparation (c) the literature on new faculty socialization (d) and the literature on the nature of academic disciplines and their differences as it relates to faculty work. The literature on the college teaching role provides a thematic summary of sub-roles that constitute teaching and is an important point of departure, as the study explores teaching preparation. The literature on doctoral students' experiences helps to illuminate the teaching preparation problem this study seeks to investigate. This body of literature suggests that few doctoral completers are ready to perform their teaching role (Golde & Dore, 2004; Meacham, 2002; Nerad, Aanerud & Cerny, 2002; Austin, 2002b; Jarvis, 1991). In response to the problem of teaching preparation, this review also captures initiatives which are believed to enhance teaching preparation. This is followed by a review of the literature on new faculty socialization. This body of literature approaches socialization to teaching from an anticipatory and institutional socialization lens. Conversely, the literature on academic disciplines and their differences elucidates the differences in scholarly behavior that has been evidenced in empirical works and offers further clarity as to how these known differences may extend to teaching preparation.

Background: Placing the Review of Literature into Context

Many of the world's most prestigious educational institutions are located in the United States of America. According to the U.S. Department of Education (2007) there are well over 18

million students enrolled at approximately 4,141 colleges and universities in the U.S. Fink (1982) purports that the greatest single factor affecting the quality of education students receive is the quality of the faculty members staffing post-secondary institutions. Estimates drawn from the Bureau of Labor Statistics of the U.S. Department of Labor suggest that there is approximately 1.7 million postsecondary teachers employed in U.S. educational institutions (*Occupational Outlook Handbook, 2006*). The bureau estimates that the number of faculty serving educational institutions is expected to grow by 23 % between 2006-2016 due in part to expected growth in student enrollment.

Higher education in the United States has experienced considerable growth. Schuster and Finkelstein (2006) claim that since the 1930's, the number of faculty members serving in U.S. colleges and universities has grown yearly. Today, on an annual basis, several thousand doctoral completers begin careers as new faculty members in various employment streams (tenure track, non-tenure track, part-time etc.) in the more than 4,000 institutions of higher education widely dispersed in the U.S.

While the traditional pillars of the life of an academic have revolved around teaching, research and service, there is consensus in the literature that the Ph.D. is a research degree (Campbell et al. 2005; Fink, 1982) and as such prepares one for conducting research within a disciplinary context. Campbell et al. (2005) suggest that the training aspiring faculty members receive is rooted in a long-standing tradition of producing professionals who make original contributions in the form of research to their disciplinary field. The authors contend that this is realized through coupling coursework with research with the goal of turning out independent researchers who advance their scholarship. Despite its historical underpinnings and success, there has been pressure placed on American higher education to reduce costs and expand faculty

productivity to include the improvement of undergraduate education (Schuster & Finkelstein, 2006). Although this call for accountability and the refocus of attention on undergraduate education has been the topic of discussion at many professional conferences and the product of many research papers, the claim of research at the expense of teaching is a real concern expressed throughout the academy (Golde, 2005; Schuster & Finkelstein, 2006; Utecht & Tullous, 2009). This is to be expected as research and publications have become the primary vehicle through which most university faculty achieve academic success. While the extent of research emphasis is based on institutional classification, it is oftentimes the primary yardstick by which scholarly productivity is measured (Boyer, 1990).

Where research takes precedence to teaching, students are inevitably the losers. Recent studies have found that this traditional model of doctoral education does not sufficiently prepare aspiring faculty members for the various roles of an academician (Golde, 2005; Nerad, 2002; Nyquist et al. 1999; Wulff et al. 2004). Specifically, concerns emerge surrounding teaching preparation. Golde (2005) claims that many new faculty members are ill equipped to carry out the range of roles required of them, particularly those related to teaching. In support of these concerns, many higher education researchers contend that doctoral programs are doing a less than adequate job of preparing aspiring faculty members for their teaching role (Jarvis, 1991; Jones, 2008; Meacham, 2002; Silverman, 2003). By failing to adequately prepare doctoral students for teaching in the academy, doctoral programs are both failing their students and the millions of undergraduates and their families who are counting on new faculty to be effective in the classroom (Meacham, 2002).

Teaching Role in Higher Education

Like research, teaching is a core responsibility that faculty fulfill as part of their communitarian obligations to the academic profession. Teaching is a complex role, which covers a wide variety of activities. Teaching according to Denham (2000) "can be broadly interpreted in the context of faculty roles as a contribution to the educational knowledge mission that originates in an institution of higher learning and serves whoever it defines as students" (p. 45). In a similar conception, Bain (2004) purports that teaching is a process of engaging students and engineering an environment in which they can learn. Neuman (2001) reports that within the past decade, the importance of teaching at the post-secondary level has received much attention from policy makers as well as other higher education stakeholders. Neuman's contentions are supported in the works of Meacham (2002) and Austin (2002b) who claim that teaching is gaining much attention, requiring faculty members to demonstrate some level of competence. Teaching has become important within the post secondary context, so much so that teaching philosophies are a common requirement in evaluating hiring decisions. In a study conducted by Meizlish and Kaplan (2008), a survey of some 457 university search committee chairs across six disciplines (English, history, political science, psychology, biology and chemistry) found that 57% requested candidates provide a teaching statement. While the results differed moderately across institutional type, Meizlish and Kaplan claim that teaching statements are becoming a common component of the recruitment and hiring process within university settings. Smith (1995) claims that most faculty members "view teaching as their primary role, want to do a good job and work hard at improving their effectiveness" (p. 5). However, evidence suggests that most faculty are not educated to teach within the post-secondary context (Jones, 2008), nor do they fully understand the varying sub-roles of teaching. A review of the literature on the

teaching role is important as the study delves into junior faculty perceptions of their doctoral level teaching preparation. Thus, some understanding of what the teaching role within the post secondary context entails is an important and inevitable point of departure.

Boyer (1990) advanced his concept of the scholarship of teaching in his both influential and contested contributions in Scholarship Reconsidered: Priorities of the Professoriate. According to Boyer, "teaching is the highest form of understanding"(p.23). Boyer's work was viewed by some as a turning point in higher education (Hall & Hulse, 2010), as teaching historically had been viewed as a routine task that almost anyone could complete (Boyer, 1990). This historical conception of teaching is the farthest thing from the truth. The scholarship of teaching as described by Boyer requires an integration of research with instruction. Boyer believed that teaching was more than simply the transmission of information, but more so a mechanism to educate and entice future scholars. He maintains that "inspired teaching keeps the flame of scholarship alive" (p.24). Boyer's contributions supports the need and more so the importance of teacher training.

In his influential contributions, Bess (2000) suggests that the college teaching role is multifaceted (made up of many sub-roles). The literature on the college teaching role is fragmented, and there seems to be no general consensus as to what constitutes the core sub-roles of teaching. In an effort to extrapolate this information from the college teaching literature, the researcher employed a qualitative approach in collecting and analyzing teaching roles across the extant literature. A review of the literature on the teaching role revealed five common themes across scholars; advising/mentoring, course design, assessment, instructional approach and teaching to diverse learning styles. These themes represent a common thread of the teaching sub-roles within the post-secondary context. The themes derived from a review of the literature

are summarized in Table 2. Thus it seems reasonable to believe that preparation for teaching would support development in the aforementioned teaching sub-roles.

Table 2
Sub-roles of Teaching in Higher Education: Common Themes Derived from the Literature

Researcher	***Themes***				
	Advising/ Mentoring	Course Design	Assessment	Instructional Approaches	Teaching to Diverse Learning styles
Gaff & Pruitt-Logan (1998)	✓	✓	✓		✓
Bess (2000)	✓	✓	✓	✓	
Arreola (2000)	✓	✓	✓	✓	
Speck (2003)		✓	✓	✓	
Lowman (1995)	✓	✓	✓		✓
Nilson (2003)	✓	✓	✓	✓	✓
McKeachie (1999)		✓	✓	✓	✓
Austin (2002a, 2002b)	✓			✓	✓

Advising/Mentoring

Advising/mentoring is an important teaching sub-role which supports quality of student learning by better engaging students in the learning process. Faculty advising plays an integral role in guiding, supporting and motivating students to strive for betterment. Bess (2000) believes that the primary role of advising/mentoring is geared towards enhancing the personal and professional growth of the learner. McKeachie (1999) suggests that this process of inspiring students to be their best is not simply restricted to the classroom, but can also be facilitated in engagement outside of scheduled class time. Based on McKeachie's contentions, such engagement would require fostering relationships with students where they feel comfortable approaching faculty for guidance.

Nilson (2003) has written that faculty must employ a variety of strategies to reach different segments of the student population. The focus of this teaching sub-role is on the personal and professional growth of the learner. Placed within the context of this study on teaching preparation, Silverman (2003) believes that part of preparation for teaching is advising/mentoring by faculty. The author suggests that such advising/mentoring relationships may include opportunities where faculty supervise and share resources with students during a teaching practica and engage them in discussions about teaching philosophies and why instructional decisions are made. This teaching sub-role, placed within the context of the study, explores those mentoring/advising activities engaged in by junior faculty during their doctoral level teaching preparation that are believed to be supportive in preparing them for teaching.

Course Design

Teaching has only one purpose and that is to facilitate students' learning. Whether a course is being taught for the first time or being re-introduced, an important point of departure is an assessment of what objectives the course seeks to accomplish. The course design process typically begins with this assessment of learning objectives which according to Nilson (2003) serves as scaffolding upon which the course is built. McKeachie (1969) suggests that after the learning objectives have been identified, the instructor must decide on what bodies of literature support these objectives and identify what text(s), articles etc. will be employed for the purpose of the course. Following this selection, McKeachie proposes that the instructor must then determine the types and order of assignments and identify appropriate teaching techniques (lectures, discussions etc.). An important component of the course design process is a determination of how students' learning will be assessed (e.g., assignments, quizzes, tests etc.) Speck (2003).

The syllabus is the tool the instructor uses to communicate this information to their students. Nilson (2003) purports that the syllabus is a concise document which outlines the course of study. Essentially, it is a road map that provides a schedule of the class assignments, reading, course objectives etc. Nilson (2003) advances several key pieces of information that should be present in this road map (i.e., the syllabus) namely: complete course information, information about yourself, an annotated list of reading materials, any other materials required for the course, a complete course description, your general and student learning objectives, graded course requirements and a complete breakdown of your grading, the criteria by which each assignment, project etc. will be evaluated, your policy on attendance and tardiness/missed or late exams and assignments, a statement of your institution's academic dishonesty policy, relevant campus support services, a weekly or class-by-class course schedule and background information about yourself.

It seems reasonable to believe that developing competencies in this teaching sub-role requires some form of training and preparation. Several items on the Preparation For Teaching Survey seeks to uncover whether or not junior faculty, during their doctoral level teaching preparation, participated in activities which support development in this teaching sub-role. Of particular importance are their self ratings of the effectiveness of participating in activities that support development in this teaching sub-role.

Assessment

Across a slew of empirical works on the teaching role, several authors have advanced assessment as an important sub-role of teaching in collegiate settings (e.g., Bess, 2000; Gaff & Pruitt-Logan, 1998; Nilson, 2003; Speck, 2003). Assessment is integral in evaluating how well students are learning what is being taught in addition to providing important information which

could serve to help improve and enhance teaching. McKeachie (1999) purports that assessment is formative and summative, driven by a purpose to improve the quality of student learning taking place in the classroom. The author suggests that assessment is much more than simply giving a student a grade on work completed. Instead in teaching, a major component of the assessment process is providing students comments on papers, responding to student statements and discussions all in an effort to help students understand where they are and how to do better (McKeachie).

Relative to grading, McKeachie (1999) advances two approaches, namely contract grading and competency-based grading. In contract grading, students in partnership with the instructor develop a written contract specifying what students will need to achieve in an effort to earn a given grade level. Conversely in competency-based grading, McKeachie advances this approach to grading as a system where the student is graded on a pass-fail basis for achieving a specified competency level in terms of the objectives of the course.

Nilson (2003) suggests that part of assessing/measuring student learning also provides the instructor valuable information relative to what students are learning and missing. A solid approach to assessment can afford the instructor an opportunity to course correct if students' performance consistently fall short of desired outcomes. Is seems logical that a part of preparation for teaching in collegiate settings would require experiences where doctoral students can practice this sub-role. Many of the items on the Preparation for Teaching Survey capture activities which would support development in this teaching sub-role.

Instructional Approaches

Teaching is the highest form of learning and understanding. Boyer (1990) claims that effective teaching "stimulate active, not passive, learning and encourage students to be critical,

creative thinkers, with the capacity to go on learning after their college days are over" (p.24). As teaching plays such an important role in student development, this section of the review of literature will highlight instructional approaches and their role in preparing aspiring faculty for teaching in collegiate settings.

McKeachie (1999) asserts that lecturing is probably the oldest form of imparting knowledge to students and suggests this approach to teaching is most widely used within colleges and universities world-wide. McKeachie is not alone in his belief as a large cross section of the literature on the teaching role in higher education share in this contention (e.g., Arreola, 2000; Lowman, 1995; Speck, 2003). Barr and Tagg (1995) believe that there are two paradigms that dominate teaching: the instructional paradigm and the learning paradigm. Under the instructional paradigm, faculty are perceived as the experts (they possess the knowledge and expertise of their discipline). This paradigm emphasizes teacher dominance and a lecture driven strategy which could best be described as a teaching-centered instructional approach. Conversely the learning paradigm, as described by Barr and Tagg, calls into attention the importance of student learning, as teachers more oriented to this paradigm focus on whether/how students learn and thus is more synonymous with a learning-centered instructional approach.

Building on the works of Barr and Tagg (1995), Grasha (1996) identified five teaching styles (i.e., the expert, the formal authority, the personal model, the facilitator, and the delegator) that are believed to represent the orientations and strategies employed by college faculty in their teaching role. The author suggests that these five styles cluster into four different categories namely: expert/formal authority, personal model/expert/formal authority, facilitator/personal model/expert and delegator/facilitative/expert. Faculty who subscribe to the teaching style cluster (expert/formal authority) are more oriented to a teacher-centered approach where

information is presented by means of lecture. According to Grasha, faculty who identify with personal model/expert/formal authority cluster also employ a teacher-centered approach, but are more concerned with modeling behavior through coaching and guiding students. Grasha believes that the facilitator/personal model/expert cluster employs a learner-centered model of teaching. Faculty who identify with this cluster of teaching styles employ a multitude of tactics in ensuring student learning (e.g., case-based discussions, concept mapping, guided readings, problem-based learning, role play etc.). As stated previously, the focus of this cluster is on the quality of learning taking place in the classroom. Lastly, the delegator/facilitator/expert cluster of teaching styles places much of the burden for learning on the student. Faculty who teach from this cluster of teaching styles typically provide complex task that require the student's initiative and group work to complete. The preferred teaching methods for faculty who subscribe to this cluster of teaching styles include small group discussions, independent study, panel discussion and modular instruction (i.e., instruction based on modules).

While it is not the intent of this study to ascertain what instructional paradigm junior faculty subscribe to or what instructional style they model in their teaching, the addition of this review of literature was more so geared towards supporting the need for pedagogical training in preparing faculty for understanding the various instructional approaches associated with the teaching role. It is obvious that developing competence in this teaching sub-role would require some teacher training. Embedded within the instrument which will be used to collect data for the purpose of this study are several items which are believed to support development in this teaching sub-role (e.g., taking a course in college teaching, participating in a teaching practicum, teaching independently etc.)

Teaching to Diverse Learning Styles

The college campus today can best be characterized as a melting pot of diverse students with diverse learning styles. The challenge to address the needs associated with diverse learning styles within the classroom requires pedagogical preparation. It seems reasonable to believe that within the post-secondary context, students learn in different ways and oftentimes come into college courses with differing backgrounds and level of preparation. Teaching to diverse learning styles is inevitable within the post-secondary context. This teaching sub-role requires that university faculty reach students in a variety of ways, stimulating their interest in what is being taught. Support for this teaching sub-role can be found in the works of Evans, Forney and Guido-DiBrito (1998) who suggest that the diversity in today's student population requires an understanding and an ability to work with students' differences effectively in the classroom.

In his influential contribution on learning styles Kolb (1981) developed a self-descriptive inventory called the *Learning Style Inventory* (LSI) in an effort to measure differences in learning styles. The author identified four statistically prevalent types of learning styles, specifically; the converger, the diverger, the assimilator, and the accommodator. Kolb defines learning styles as a customary way of responding to one's learning environment. Placed within the context of this study this would represent the classroom. According to Kolb, the convergers are learners who are more oriented to problem-solving and decision-making. These learners prefer technical tasks over social or interpersonal settings. Divergers on the other hand are the opposite of convergers and tend to be more imaginative and aware of the meaning and value of experiences. The accommodators are doers. Kolb suggests that this learning style is more oriented to the completion of tasks and tend to be more open to new experiences. They are willing to take risks and adapt easily to changing circumstances. These learners prefer trial-and-

error problem solving. Lastly, assimilators excel at inductive reasoning. Learners oriented to this classification tend to be proficient at integrating what they learn.

While it is not the intent of this study to test Kolb's (1981) conceptions of learning differences, its presentation in this section is of importance as teaching to diverse learning styles require teaching preparation that is geared towards furnishing faculty with the skills necessary to reach and inspire students to learn what is being taught. Embedded within the preparation for teaching survey are items which capture this teaching sub-role in measuring junior faculty perceptions of their doctoral level teaching preparation.

Summary

Preparation for university teaching is a common concern expressed throughout the literature in higher education (Silverman, 2003). It is clear based on the teaching sub-roles identified in Table 2 that the college teaching role involves much more than just lecturing. This review of the literature on the teaching role provided a thematic summary of teaching sub-roles as well as a way to frame new faculty perceptions of the teaching role. A review of the teaching role in higher education was an important point of departure as the study delves into teaching preparation. The teaching sub-roles indentified in this section of the review of literature are aligned with items on the *Preparation for Teaching Survey*. With the increased importance placed on teaching as evidenced in the works of Austin (2002b), Boyer (1990), Meacham (2002) Silverman (2003) among others, how has this translated into how doctoral programs prepare doctoral students for their college teaching role? The next section examines this problem through a review of the literature on doctoral students' experiences specific to teaching preparation.

Doctoral Students' Experiences as it Relates to Teaching Preparation

The literature on doctoral students' experiences helps to illuminate the teaching preparation problem this study seeks to investigate. A review of the national studies and current literature on the experiences of doctoral students inform this study in addition to providing and substantiating the need for a large scale initiative which seeks to delve directly into the problem which this study seeks to address. It is well documented in the literature that doctoral education follows a long-standing tradition of producing researchers (Campbell et al. 2005). Based on this premise, it is arguable that many of the studies exploring the experiences of doctoral students were inspired by the shortcomings of doctoral programs' traditional values (i.e., developing research competencies). Higher education scholars contend that the research component of doctoral education, rooted in tradition, is often emphasized at the expense of broader and more holistic training and skill development (Campbell et al. 2005; Fagen & Wells, 2002; Golde & Dore, 2001; Nerad, Aanerud & Cerny 2004; Wulff et al. 2004).

Golde and Dore (2001) posit that "the 1990's brought considerable attention to doctoral education" (p. 19) which they believe was spurred by the changing labor market and the shrinking pool of tenure track positions. Absent from the many discussions and reports of the 1990's were information about doctoral students' experiences (Golde & Dore). Identifying this gap in the literature, Golde and Dore among others such as Nyquist and Woodfood (2000), Nyquist et al. (2001), Fagen and Wells (2002) Austin (2002a, 2002b) set out to survey doctoral students about their experiences.

In their seminal work, Golde and Dore (2001) developed a survey to explore doctoral education and career preparation. The survey assessed doctoral students' experiences as it related to their programs, career plans, and the effectiveness of their program in preparing them

for their expected careers. The study, conducted in 1999, was premised on the assumption that doctoral students' experiences would reveal strengths and limitations of the system. The sample consisted of approximately 4000 doctoral students at 28 universities who were from 11 arts and science disciplines. Of particular importance are the results of the study relative to teaching preparation. The survey revealed that 63.9% of students did not feel prepared by their programs to teach lecture courses.

Similar to Golde and Dore's study, are the findings and contributions of Fagen and Wells (2002). These authors developed the *National Doctoral Program Survey* which was a web-based study of doctoral students' perspectives on the educational practices of doctoral programs. The study had a rather large sample (n=32,000) students representing approximately 5,000 doctoral programs at almost 400 graduate institutions in the United States and Canada. While the study explored several aspects of doctoral training, of particular importance were the results relative to teaching preparation. Based on the results of the study, 45% of respondents indicated that they did not receive appropriate preparation for teaching. Additionally, 49% of graduate teaching assistant respondents indicated that they did not receive appropriate supervision to help them improve their teaching. Within the life sciences, 57% of respondents believed that the teaching experiences available to them were not adequate preparation for academic/teaching careers. This makes reasonable sense as studies by Braxton and Hargens (1996) suggest that "variation in scholarly consensus affects the relative emphasis on research and teaching activities (p. 36).

The findings of Fagen and Wells's (2002) investigation as it relates to teaching preparation is congruent to those of Golde and Dore (2001) and Wulff et al. (2004), who through a four-year longitudinal study, took a qualitative approach in exploring the experiences of graduate students. The sample for this study, Teaching Assistants (TAs) from three

geographically diverse institutions, were followed over a period of four years in an effort to document their development and experiences. The authors based the study "on the premise that in order to prepare professors, we need insights about the changes that graduate students aspiring to the professoriate undergo during their graduate years, the ways their experiences contributed to their development as teaching scholars, and the kinds of training that can best prepare them for their careers as knowledgeable, competent instructors" (Wulff et al. 2004 p.47). Key findings from the study revealed that oftentimes graduate programs represented in the study did not purposefully provide opportunities for graduate students' development as teachers. Wulff et al.'s contribution to our understanding of the experiences of graduate students confirms the findings of many scholars who purport that graduate education is rooted in a long-standing tradition of producing researchers (Campbell et al., 2005; Golde & Dore, 2001; Neumann, Parry, Becher, 2002; Nyquist et al. 1999; Nyquist & Woodford, 2000; Silverman, 2003). The authors claim that "many academics seem to be hanging onto an idealized and traditional model that heavily emphasizes research preparation with little attention to the other roles of faculty members" (p. 64). Perhaps this evidence provides some explanation as to why doctoral students throughout the review of this literature report not receiving adequate preparation for their teaching role.

Through their research, Wulff et al. (2004) were able to advance several key recommendations which they believe if implemented would augment the preparation of aspiring faculty. Key recommendations included providing systematic feedback and assessment on a regular basis - making opportunities for reflection and working on a broad definition of teaching. This encompasses the wide array of activities involved in teaching (*responding to papers, designing courses and lessons and grading exams*). The *Preparation for Teaching Survey* captures all of these items which are believed to support teaching preparation.

Similar results were garnered from an earlier report by Nyquist and Woodford (2000). The authors provided a synthesis of the concerns expressed from interviews conducted with 365 participants to include stakeholders from doctoral research institutions, liberal arts and community colleges, K-12 education, doctoral students, government funding and hiring agencies, business and industry foundations, disciplinary societies and educational associations. The study, which took a qualitative approach, utilized open-ended questions to better understand the processes and outcomes of doctoral education. A review of the literature on doctoral students' experiences revealed none that has taken such a comprehensive approach in better understanding the experiences of doctoral students using multiple lenses.

Similar concerns as it relates to teaching preparation were identified by doctoral granting institutions, liberal arts and community colleges, doctoral students, government agencies and disciplinary societies and educational associations. Doctoral granting institutions, liberal arts and community colleges expressed concerns about the lack of pedagogical training in doctoral programs. These stakeholders contend that new faculty are not prepared to teach today's students. Concerns identified by doctoral students included better preparation for teaching to include curriculum development and career planning. Government agencies asserted that teaching is undervalued in doctoral education which puts junior faculty at a disadvantage in preparing the next generation of scholars. They call for more attention to doctoral students teaching preparation. Lastly, concerns identified by disciplinary societies and education associations' call for more attention to graduate students' preparation for teaching.

Nyquist et al. (1999) reported that graduate students would like more support for their professional development as teachers. Specifically they suggest "regular and systematic self-reflection about their teaching experiences; discussing teaching with other TAs; observing and

being observed, and then giving and receiving feedback about teaching; and more consistent and relevant mentoring and advising about life as a teaching scholar – in short, real intellectual and emotional engagement with others about teaching" (p. 24). These activities are captured and will be measured by means of the data collection instrument, and are consistent with recommendations advanced by other researchers.

In support of Nyquist et al. (1999) findings, "the Phd-ten years later", a study conducted by Nerad, Aanerud and Cerny (2004) resulted in a similar recommendation surrounding teaching preparation. Although the study relied on doctoral completers (n=6000) and aimed to assess doctoral programs in terms of career placement, the authors called for doctoral programs to prepare students who aspire for the profession for a life of teaching, research and service. Specifically, the authors call for doctoral programs to provide opportunities where students can learn about faculty roles through workshops/seminars. These findings are aligned with those drawn from a web-based survey initiated by the Committee on Graduate Education (GCE), which surveyed 630 history departments in the United States (Katz, 2001). The survey, which consisted of five open ended questions, had respondents express concerns relative to doctoral students' teaching preparation. The challenge to acquire sufficient teaching preparation and teaching experience was one which they felt was crucial, especially for today's job market where hiring institutions are calling for prospective candidates to demonstrate teaching competencies in the hiring process. To realize this end, Wulff and Austin (2004) maintain that doctoral programs will need to provide doctoral students systematic preparation for teaching. These authors believe that doctoral students should be afforded the opportunity to develop teaching competencies appropriate to their disciplinary field. This they believe could be accomplished by way of doctoral programs providing doctoral students who aspire to the professoriate with an array of

teaching opportunities that become progressively more demanding, requiring more responsibility as the student grows in their competence. Wulff and Austin suggest offering teaching practicum's where doctoral students are exposed to different teaching situations, various class sizes, and different teaching environments across institutional type. The authors highlight faculty supervision/advising as an integral component where through feedback on teaching, doctoral students can hone their teaching skills.

In support of these findings Austin (2002a; 2002b) addressed the lack of preparation for teaching in the academy and advanced several recommendations aligned with the aforementioned. Austin's recommendations were drawn from the analysis of a four year longitudinal qualitative study aimed at exploring the graduate experience as preparation for careers in the academy. Participants included those who aspired to the academic profession, specifically graduate students who were TA's drawn from a cross-section of disciplines to include the humanities (English and music), sciences (chemistry, zoology, engineering, and mathematics), social sciences (history, psychology, and communication) and professional areas such as business, journalism, education and food sciences. Participants were drawn from three universities (two-doctoral granting institutions and one-masters granting institution). Austin's recommendations were drawn from 79 participants from two doctoral granting institutions. Over the four year period, participants were interviewed every six months via the use of an open ended interview protocol which invited participants to reflect on their experiences as graduate students and as teaching assistants, their disciplinary areas of interest, career aspirations, perceptions of faculty work, observations about faculty roles and responsibilities, and suggestions appropriate for the preparation of aspirants to the academic profession. Findings indicated that graduate students studied did not experience systematic preparation for faculty careers. Austin asserts that

the use of TAs usually responded to a departmental need aimed at covering courses, rather than a systematic approach to aid in the preparation of competent teachers for the profession. Similar to the recommendations advanced by Golde and Dore (2001), Meacham (2002), Silverman (2003) among others, Austin calls for reforming doctoral education to include better preparation for teaching, incorporating knowledge about individual learning differences and the wide array of teaching strategies.

Participants in Austin's (2002b) study advanced several recommendations for improving graduate school for preparation of faculty careers to include: more attention to regular mentoring, advising and feedback, structured opportunities to observe, meet and talk with peers, diverse developmentally oriented teaching opportunities, information and guidance about the full array of faculty responsibilities and regular and guided reflections. The Preparation for Teaching survey captures these elements in an effort to first identify if junior faculty had these experiences and if so, how effective where they in preparing them for teaching. At the core of these recommendations was better preparation for teaching. Austin's findings support those of Golde and Dore (2001), Fagen and Wells (2002), Katz (2001), Nyquist and Woodford (2000),Wulff et al. (2004) among others who report that doctoral students do not receive careful guidance and training in many aspects teaching.

Meacham (2002) also addressed the lack of teaching preparation at the doctoral level. The author espouses that there is disconnect between the qualities being sought in new faculty and those being taught in doctoral programs. Because of doctoral programs' heavy emphasis on developing research competencies (Campbell et al., 2005; Golde & Dore, 2001; Neumann, Parry, Becher, 2002; Nyquist et al. 1999; Nyquist & Woodford, 2000; Silverman, 2003), oftentimes preparing doctoral students for their teaching role is sacrificed. Meacham claims that institutions

hiring new faculty are seeking candidates with competence in teaching. Because this skill set is often lacking in the preparation of doctoral students for the profession, Meacham (2002) calls for reform in doctoral education in an effort to better prepare stewards of the profession. In beginning to address this problem Meacham claims that programs with the greatest impact in preparing doctoral students for college teaching includes those that imbed activities such as being mentored by faculty, spending time following faculty through a typical day, participating in graduate seminars on teaching and faculty life, preparing a course syllabus and having it critiqued, being supervised in teaching by excellent teachers, engaging in self assessment and self reflection as a teacher and potential faculty member and assembling a teaching portfolio that includes a statement of teaching philosophy most of which are imbedded in the Preparation for Teaching survey.

To further support the lack of teaching preparation in doctoral programs, Silverman (2003) in his article also addressed the role of teaching in the preparation of future faculty. Silverman claims that graduate students and future faculty do not believe that most TA experiences prepare them for the teaching role. These findings support those of Austin (2002a) and Wulff et al. (2004). According to Silverman (2003), while there is enough evidence to support the lack of teaching preparation at the doctoral level, there is little being done to address the problem. Recognizing the importance of teaching preparation, Silverman postulates that graduate students as well as other teaching professionals within post-secondary settings need knowledge and skills in preparing them for the teaching role. The author advances three strategies for helping students develop their teaching competences i.e., courses, practica and mentoring in college teaching.

Based on a review of the literature, one of the most common approaches in augmenting doctoral students' preparation for teaching includes offering a course or seminar related to teaching where students can obtain pedagogical knowledge (Given et al, 1998; Holdaway et al. 1994; Lambert & Tice 1993; Nyquist, 2001; Meacham, 2002; Waldinger, 1990; Wilkins, 1997). While course work in teaching is a common approach expressed in the literature relative to teaching preparation, Silverman (2003) reports that the long term implications for the academy are significant. The author postulates that this is an easy way of providing doctoral students, who aspire to the professoriate, teaching preparation which invariably could lead to better faculty candidates and improved quality of learning for students within the classroom. In his second recommendation - offering teaching practica - Silverman believes that graduate students need experience teaching in environments similar to those they may encounter later in their careers as assistant professors. This lack of teaching practica at the doctoral level is supported by empirical data generated from doctoral students in a study by Golde & Dore (2001). The teaching experience Silverman advances in his recommendations is not the equivalent of offering the general teaching assistantships where students in some cases are required to teach a course. Instead, the author believes that this experience should be progressive with students assisting a professor at first and then taking over more of the class under the supervision of that professor. Lastly, Silverman (2003) claims that mentoring is an integral component in the process of helping students develop into successful university teachers. This he believes includes supervising and sharing resources during teaching, engaging in discussions about teaching philosophies and why/how instructional decisions are made in courses.

It is evident based on this review of literature that doctoral programs traditionally have done an exceptional job of preparing doctoral students for research at the expense of placing

little emphasis on teaching (Campbell et al., 2005; Golde & Dore, 2001; Neumann, Parry, Becher, 2002; Nyquist et al. 1999; Nyquist & Woodford, 2000; Silverman, 2003). Given the ambivalence surrounding teaching preparation, it comes as no surprise that doctoral students throughout this review of literature report not receiving adequate preparation for teaching. While the findings of scholars such as Austin (2002) Golde and Dore (2001), Fagen and Wells (2002), Wulff (2004) among others who surveyed doctoral students and/or doctoral students who were teaching assistants drew similar conclusions (i.e., in all cases students reported not receiving adequate preparation for teaching), it is arguable that the sample used in these studies (doctoral students) who were actively pursuing their terminal degrees at different stages of the process may or may not be in a position to accurately assess their own proficiency in being trained for college teaching. This assumption is based on the premise that the sample may have not had the opportunity to truly reflect on their doctoral training as preparation for teaching in conjunction with the notion that they are not quite yet junior faculty. A major limitation of these studies is that they measure doctoral students' opinions and perceptions. While the outcome is clear, that doctoral students do not feel adequately prepared for their teaching role, it is unknown if that confidence is well placed. Utilizing a sample comprising junior faculty who have experienced teaching as a new faculty member may validate the perceptions and reports of previously studied graduate students. Additionally, as discussed elsewhere in this review of literature on doctoral students' experiences, researchers advanced several recommendations to doctoral programs which they believe if implemented would aid in better preparing doctoral students for their college teaching role. For example Silverman (2003) called for courses, practica and mentoring in better preparing doctoral students for teaching. Wulff et al. (2004) called for providing systematic feedback and assessment on a regular basis - making opportunities for reflection and

working on a broad definition of teaching which encompasses the wide array of activities involved in teaching (*responding to papers, designing courses and lessons and grading exams*). The primary limitation of these recommendations is that the literature on doctoral students' experiences does not empirically examine these factors which they believe to impact teaching preparation, in an effort to ascertain whether or not they are making a difference in the preparation of doctoral student for teaching in collegiate settings. Many of the recommendations advanced by the scholars discussed in this body of literature contributed to the development of the *Preparation for Teaching Survey*.

Initiatives to Enhance Teaching

Concerns for the quality of teaching and learning taking place within U.S. post-secondary institutions have been escalating since the mid-1970's (Rice, 2006). This is suspected to have been influenced by accountability measures and a demand for higher education to deliver on its promise of a quality education. Rice believes that since the mid-1970's there has been a range of initiatives aimed at improving teaching at the post-secondary level. It is arguable that this emphasis on teaching and learning could potentially be linked to the lack of preparation aspiring faculty receive for the profession. According to Rice, large private foundations (Kellogg, Lilly, Danforth, Ford), among others were amongst the first to launch major initiatives in the form of grants to improve teaching and learning at the post-secondary level. The Fund for the Improvement of Post-Secondary Education setup by the U.S. Department of Education was particularly instrumental in funding a number of initiatives at U.S. colleges and universities (Rice, 2006).

Rice claims that many of the institutional initiatives aimed at improving teaching and learning focused on the professional development of faculty. By the 1990'-s, a joint initiative by

the Association of American Colleges and Universities (AACU) and the Council of Graduate Schools (CGS) resulted in the formation of the Preparing Future Faculty Program (PFF) (Singer, 2002). According to Rice (2006) PFF initially worked with graduate students interested in pursuing academic careers. PFF recognizes the need for new faculty to be competent and effective teachers. Since its inception some 17 years ago, PFF is now a national movement aimed at transforming how aspiring faculty are prepared for the academic job market. PFF programs provide doctoral students in addition to master's and postdoctoral students opportunities to learn about and experience faculty responsibilities at a variety of institutional types. Essentially, PFF programs aid in socializing aspirants to the academic profession. This is achieved by providing educational experiences that are informed by the kinds of responsibilities faculty members have in different institutional settings. Some examples of PFF activities directly related to teaching preparation follows:

- Seminars on topics in college teaching
- Workshops on developing portfolios documenting expertise in teaching
- Teaching a unit and or an entire course and receiving feedback from a mentor
- Shadowing faculty
- Being mentored by faculty

Since PFF's inception, many institutions have developed similar programs without the luxury of external funding (Preparing Future Faculty, 2009). Centers for Teaching and Learning and the like have been established on many colleges and university campuses across the U.S. Based on data reported by PFF, over the last decade, PFF programs were implemented at more than 45 doctoral granting institutions and almost 300 partner institutions within the U.S. (Preparing Future Faculty, 2009). Their growth within doctoral granting institutions is particularly

impressive, as these institutions are charged with the responsibility of preparing the next generation of academicians.

Initiatives similar to PFF have been developed across the country. The Center for Teaching at Vanderbilt University is one example of an institution committed to developing excellence in teaching. Recognizing that developing research competencies takes time, the Center for Teaching at Vanderbilt University promotes teaching and learning as an ongoing process of inquiry, experimentation and reflection. Similar to Vanderbilt's Center for Teaching is that of the University of Michigan's Center for Research on Learning and Teaching (Singer, 2002). The University of Michigan Center for Research on Learning and Teaching, partnered with university faculty, graduate students and administrators in an effort to promote a culture that values and rewards teaching (Center for Research on Learning and Teaching, 2010). The Michigan Center for Research on Learning and Teaching, offers a comprehensive range of activities (curricular and instructional) in better preparing doctoral students and faculty for teaching. There are a variety of these types of programs across institutions of higher education in the United States. While there are many similarities, a common thread exists across institutional type and that is a strong commitment to enhancing learning and teaching excellence (Singer, 2002).

The activities that PFF programs and centers for teaching and learning engage students in are all consistent with many of the recommendations advanced by scholars in the review of literature as activities which could serve to better prepare doctoral students for their college teaching role. These include providing opportunities where students can attend seminars on college teaching, teaching a unit or an entire course and receiving feedback, shadowing faculty etc. While they have been advanced as recommendations to better prepare doctoral students for

their teaching role, they have not been empirically tested from a disciplinary lens to unearth their effectiveness. This study will be the first of many efforts to test their effectiveness.

Over the years, many assessments of PFF programs have been undertaken in an effort to determine whether or not these programs are meeting their goals. DeNeff (2002), in an assessment of the Preparing Future Faculty Program, employed a mixed methodological approach with a sample that completed the program, received doctoral degrees and secured faculty jobs in post-secondary institutions. In addressing the question 'what difference did the program make?', as it relates to faculty roles, an overwhelming majority responded that as a result of their PFF experience they were better prepared for faculty careers at different institutional types. Similar results were found from an assessment done by the University of Minnesota Center for Teaching and Learning. When asked, 'what difference did PFF make?', one respondent said "There were 376 candidates for my current position. I was later told that one of the things that differentiated me from other candidates was my PFF certification, attesting to my commitment to teaching. I have always been and will be glad that I decided to get involved in PFF!" (University of Minnesota Center for Teaching and Learning, 2008 p.1)

According to Pruitt-Logan and Gaff (2004) "The changes precipitated by PFF programs constitute a win-win-win strategy: better preparation for doctoral students, better faculty candidates for the colleges and universities that hire them, and stronger, more engaging programs for doctoral degree granting departments" (p. 192). Singer (2002) adds that centers for teaching and learning all share a common assumption and that is to improve teaching and learning within the post-secondary context, which she believes is attainable through proving support, information and practice. In support of this notion, Boice (2001) suggests that the programmatic activities that undergird centers for teaching and learning can strengthen faculty abilities in the

classroom. It is clear that centers for teaching and learning and the like are providing an essential service to higher education which invariably assists in institutions' abilities to better prepare students for responsible citizenship. At the end of the day, the most important question to ask is whether student learning in the classroom has been impacted as a result of aspiring faculty (doctoral students) and other categories of faculty involvement in PFF programs.

Rice, Sorcinelli and Austin (2000) claim that the academic profession and career paths of faculty within the post-secondary context is markedly different today than it was some thirty years ago. Increasingly post-secondary institutions, especially those at the highest levels of the Carnegie classification, are calling on new faculty to demonstrate competence in teaching (Meacham, 2002). In support of Meacham's claim, Hall and Hulse (2010) maintain that the demand for faculty candidates to demonstrate teaching competency is evidenced in the fact that search committees now more than ever are requesting statements of teaching interests, teaching philosophy and a teaching demonstration as part of their faculty recruitment initiatives. Similarly, Singer (2002) believes that the mere presence of centers for teaching and learning on the campuses of post-secondary institutions lends credibility and support for their mission of enhancing and maximizing student learning.

Despite the widespread success of teaching center programs across institutions of higher education, little is known from an empirical perspective whether the activities of such programs and the involvement of doctoral students who aspire to the professoriate have any relationship to overall teaching preparedness. This study will help to illuminate whether or not a relationship exists between junior faculty perceptions of involvement in such programs and their self-rated overall preparedness for teaching. The addition of this literature and its relationship to the body of literature on doctoral students' experiences as it relates to teaching preparation was

particularly important as it establishes some response to the lack of teaching preparation that doctoral students report across a slew of empirical studies. While there is evidence in the literature that the training aspiring faculty members receive is rooted in a long-standing tradition of developing research competencies (Campbell et al. 2005), it is encouraging that PFF programs are growing across institutional types, unified by a common thread and that is to develop a strong commitment to improving teaching and learning.

Summary

Doctoral programs at U.S. institutions of higher education are failing to adequately prepare doctoral students for their college teaching role. This review of the literature on doctoral students' experiences as it relates to teaching preparation provided a comprehensive overview of the empirical works that support this notion. Across a string of studies, higher education scholars conclude that the research component of doctoral education rooted in tradition is often emphasized at the expense of broader and more holistic training and skill development for the academic profession (Campbell et al. 2005; Fagen & Wells, 2002; Golde & Dore, 2001; Nerad, Aanerud & Cerny 2004; Wulff et al. 2004). Specifically these authors all cite teaching preparation as a major concern. Several recommendations were advanced (e.g., attending seminars on college teaching, shadowing faculty, teaching a unit or an entire class etc.) as activities which might serve to better prepare doctoral students for their college teaching role. All of these items are imbedded in the Preparation for Teaching Survey, which will allow for a cross disciplinary exploration of their effectiveness and their relationship with junior faculty self rated overall preparedness for teaching. While Silverman (2003) reports that doctoral programs have been aware of this problem (lack of teaching preparation), very little is being done to resolve it. In searching for some response to this global problem facing higher education, the

researcher embarked on a discussion of what PFF programs and similar initiatives such as Centers for Teaching Excellence were doing to begin to address the problem of teaching preparation. Several parallels were drawn between what PFF programs and the like are doing and the recommendations offered by higher education scholars to augment teaching preparation. This review of the literature on the experiences of doctoral students and initiatives to enhance teaching preparation helps to highlight the problem which this study seeks to investigate. As the researcher, it is important to portray a complete portrait of the problem (teaching preparation) in conjunction with what is being done to better prepare aspirants for their college teaching role.

New Faculty Socialization

The literature on new faculty socialization as it relates to their teaching role lends further support for the need to advance the current study. Jones (2008) suggests that while the majority of faculty views teaching as an important role, most are not prepared for teaching. This section will define and then delve into new faculty socialization to the teaching role, both from an anticipatory and institutional lens.

A review of the literature on socialization revealed several conceptions advanced by different scholars. Bragg (1976) pointed out that the socialization process is a learning process through which "the individual acquires the knowledge and skills, values and attitudes, and the habits and modes of thought of the society to which they belong" (p. 3). Dunn, Rouse and Seff (1994) believes that socialization is "the process by which individuals acquire the attitudes, beliefs, values and skills needed to participate effectively in organized social life" (p. 375). Likewise, Austin (2002b) defines socialization as a process through which an individual becomes part of a group, organization or community. Vann Maaneen (1978) in a similar conception adds that this process involves learning about the culture of the group its attitudes,

values, and expectations. A common thread can be extrapolated from these conceptions of socialization, that being that it is a process through which one acquires the necessary knowledge to be part of a group/organization. Simply stated, this is a process of 'learning the ropes' (Anderson et al. 1991; Bess, 1978; Tierney & Rhodes, 1994; Wulff et al. 2004; Van Mannen & Schein, 1979). As is evident based on this conceptualization, socialization involves the transmission of culture. This process, according to Tierney and Rhoads (1994), resembles one through which individuals learn to be scholars within their disciplinary field.

New faculty entering the academy are tasked with the responsibility of acquiring the necessary skills to function effectively in their new environment. Menges (1999) suggest that when viewed through an academic lens, this is a process through which new faculty come to develop a broader understanding of the work and roles they assume as faculty members within the university context. This initial entry into the world of academe for new faculty could be characterized as a period of anxiety and uncertainty (Menges, 1999). This claim is supported in the works of Van Maanen (1978) who suggests that individuals transitioning between institutions are said to be in an anxiety producing situation. For the recent PhD graduate who has secured his/her first job within academe, transiting from graduate education to assistant professor can be an anxiety producing event. Menges (1999) believes that the anxiety new faculty experience is transformed into anxiety about surviving in the job. He postulates that new faculty experience a tremendous amount of pressure from obligations that compete for their time and energy. This battle over what proportion of time should be dedicated to teaching, research and service can have different implications based on institutional type. Further support for Van Maanen (1978) and Menges (1999) claim is found in the works of Johnson (2001) who also speaks about the anxiety surrounding new faculty entrance to the academy. While there is much for new faculty

to learn as they transition between institutions and between roles (graduate student-teacher/researcher) the literature suggests that many new faculty struggle with finding a balance between teaching, research and service.

The socialization of new faculty is important as it helps to situate them within their new context in addition to establishing common values that bond a group into the profession (McCoy, 2006). McCoy believes that new faculty must be properly socialized in an effort for them to gain an understanding of the culture of academic life. In a unique conceptualization of the socialization process of new faculty, Tierney and Bensimon (1996) and Tierney and Rhoads (1993) believe that new faculty socialization follows a two-pronged approach. First there is anticipatory socialization which is most proximal during doctoral training followed by organizational socialization which takes place after one enters the academy as a faculty member. Johnson (2001) also shares in this conception of socialization, adding that the anticipatory stage is most proximal during graduate education followed by the organizational stage which occurs upon the newcomer's entrance into the institution as a faculty member.

Anticipatory Socialization

The first phase of the socialization process, as described by Tierney and Bensimon (1996), involves anticipatory learning. Clark and Corcoran (1986) describe this as a "process by which persons choose occupations and are recruited to them, gradually assuming the values of the group to which they aspire and measuring the ideal for congruence with reality" (p. 23). As this phase of the socialization process is most optimal during doctoral training (Tierney & Bensimon 1996), it is evident based on the review of literature on doctoral students' experiences that doctoral programs are doing a less than adequate job of socializing doctoral students to the academic profession, specifically socializing them to their teaching role. Despite the importance

of this phase of the socialization process, aspiring faculty often possess a limited understanding of the teaching role. This could be explained by doctoral programs' heavy emphasis on developing research competencies (Campbell et al., 2005; Golde & Dore, 2001; Neumann, Parry, Becher, 2002; Nyquist et al. 1999; Nyquist & Woodford, 2000; Silverman, 2003), which oftentimes come at the expense of preparing doctoral students for their college teaching role.

The anticipatory socialization phase is important to aspiring faculty members, as this is the phase in which they learn the attitudes, actions and values of the profession (Clark & Corcoran 1986; Tierney & Rhoads, 1993). This is particularly important, as faculty careers in academe require formal education and socialization which is most proximal during doctoral training (Antony & Taylor, 2001). While there is much evidence to suggest that doctoral students are not being adequately prepared for their teaching role, Austin (2002b) purports that early socialization to the academic profession could be better enhanced by providing doctoral students with unambiguous expectations of the roles and responsibilities of new faculty and on-going feedback and discussions relative to life in academe. While there has been some effort on the part of higher education to better socialize aspiring faculty to the academic profession through such programs as the Preparing Future Faculty (PFF), these programs are not widespread. Pruitt-Logan and Gaff (2002) recommend more research surrounding PFF programs. A review of the literature provided no empirical results of the impact of these programs on preparing doctoral students for the role of teaching. "Doctoral education programs cannot remain static if they are to continue to create marketable graduates" (Campbell, Fuller & Patrick, 2005 p. 153), who are not only competent researchers, but also effective teachers.

Organizational Socialization

While anticipatory socialization to the academic profession is most optimal during doctoral training, the organizational phase occurs upon the new faculty member's entrance into the employing institution. Tierney and Bensimon (1996) and Tierney and Rhoads (1994) suggest that organizational socialization also follows a two stage process - initial entry and role continuance. The initial entry phase focuses on the interactions at play during the recruitment and selection process. For new faculty entering the academy this is oftentimes a period of anxiety and confusion (Boice, 1992; Johnson, 2001; Menges, 1999). New faculty may experience high levels of anxiety and stress, struggling with finding a balance between their professional obligations to the institution (teaching, research, service) and personal obligations (family, extracurricular) (Lucas & Murray, 2002; Menges, 1999). In this phase, instead of experiencing the stress brought on by the job-search process, new faculty are concerned about their success in the academy (McCoy, 2006). According to Tierney and Rhoads (1993), the initial entry into the institution - and more specifically the college and department - marks the beginning of the organizational socialization process. The role continuance phase occurs after the new faculty member has been placed and positioned in the department and continues throughout their employment.

In a study conducted by Menges (1999), the author set out to explore the dilemmas of newly hired faculty members. Menges suggest that anxiety is high amongst new faculty largely stemming from their ability to survive in the job and balancing the demands for teaching, professional growth, research and service.

Boice (1992) suggests that given the public clamor for more accountability to include better teaching and quality of learning within the post secondary context, institutions of higher

education are tasked with better socializing new faculty to their institutional roles. The author goes on to say that "campuses face growing demands for improved teaching as a means of both attracting and retaining students and meeting demands for accountability in expenditures of public funds (Boice, 1992, p. 4). For these reasons alone, post secondary institutions should develop programs and support services that are designed specifically for new faculty as a way of more effectively socializing them to both the institution and more specifically to their teaching role. Viewed from an economic lens, it would seem more cost effective to provide such support services rather than having to deal with faculty turnover brought on as a result of inadequate organizational socialization to the teaching role which could also have some implications for student retention. According Jarvis (1991) the final and telling argument is that many new faculty members, generally speaking, are poorly prepared for teaching.

From an organizational socialization lens, it is debatable as to how and what institutions are doing to socialize new faculty to their teaching role as this may vary based on institutional type and academic program/department. Some institutions for example, as part of their new faculty orientation programs, introduce new faculty to their centers for teaching excellence and provide other resources to support new faculty in developing teaching competence. What is known however, based on a review of the literature, is that new faculty report not being prepared for teaching and recommend that doctoral programs provide better teaching preparation. Following is a review of empirical works which support this claim.

According to Eddy and Gaston-Gayles (2008) "once students finish the PhD and go into the faculty rank, they enter the classroom as the sole person responsible for course curriculum" (p. 99). The authors claim that very few doctoral programs prepare students for teaching despite the fact that teaching is a core faculty responsibility in academe. In their study on the issues and

stress of new faculty, Eddy and Gaston-Galyles found that the majority of participants in their study reported receiving a great deal of preparation for conducting research; however they lacked confidence in their teaching preparation and ability. The study, which took a qualitative approach, sampled 12 new faculty members who were within their first three years of employment in institutions of higher education. As junior faculty facing their first teaching assignments, participants in Eddy and Gaston-Gayles study noted that they did not receive much guidance on how to teach, much less prepare for teaching, including both their experiences in doctoral programs and within their current departments. The results of Eddy and Gaston-Gayles study have direct implications for the organizational socialization of new faculty members. Given the fact that participants in their study reported not receiving adequate support for teaching within their current departments, it could be inferred from these findings that their organizational socialization to the teaching role was at best inadequate. While socialization to the academic profession is imbedded in the discipline, departments can employ department specific orientations for new faculty where they can be partnered with senior faculty as a way of supporting their development as teaching scholars.

Eddy and Gaston-Gayles' (2008) empirical findings are congruent to those of Jones (2008) who believes that most faculty members are not educated to teach. According to the author, at best new faculty may have received a course in pedagogy as a requirement of their doctoral training. Worst case scenario, which according to that author is oftentimes the case, new faculty are thrown into the classroom relying only on their experience as students to inform their teaching. The implication of this practice can have adverse effects on student retention and the quality of learning taking place in the classroom. While the literature is replete with evidence that doctoral programs are rooted in a tradition of developing research competencies,

Entwistle (2000) supports this notion with one caveat - it's an incorrect assumption that anyone with a Ph.D. will automatically be able to teach. This tradition of doctoral programs developing research competencies at the expense of preparing aspiring faculty for their teaching role is also supported in the works of Bieber and Worley (2006). When a sample of new faculty who had been hired within three years of completing their doctoral programs were surveyed (n=158) on how well their graduate programs prepared them to engage in various activities, the highest rated activities were research related. Teaching preparation once again took a back seat ride. This is no surprise as these findings confirm what is already known about the preparation that doctoral students who aspire to profession receive. Additionally, it does not say much to support the organizational socialization of new faculty. The lack of teaching preparation is well documented in the literature, thus it seems reasonable to believe that if institutions of higher education were serious about quality teaching, then the organizational socialization of new faculty would resemble such commitment. Unfortunately this is not the case.

A study conducted by Nerad, Aanerud and Cerny (2004) using a sample of PhD recipients reported similar findings. The authors found that the top three recommendations advanced by participants in their retrospective evaluation of doctoral programs training surrounded the need for doctoral programs to better provide doctoral students greater educational relevance to the changing world both inside and outside of academe, better labor market preparation-specifically better teaching preparation, and hands-on practice for faculty roles. The study which relied on a sample of 6000 PhD recipients across six disciplines (bio-chemistry, computer science, electrical engineering, English, mathematics, and political science) from 61 doctoral-granting institutions aimed to assess doctoral programs in terms of career placement. While the survey focused on employment history, the job search process, factors respondents

considered when accepting employment positions and an evaluation of their doctoral programs, relative to the nature of the study respondents recommended that doctoral programs better prepare doctoral students to teach. In their recommendations, Nerad, Aanerud and Cerny suggest that doctoral programs better prepare aspirants to the professoriate for a life of teaching, research and service across different institutional types. The findings of Nerad, Aanerud and Cerny provide additional support that the lack of teaching preparation is not just something being reported by doctoral students, but also by PhD recipients who hold faculty positions within the post secondary context. While these empirical works help to illuminate the lack of socialization new faculty experience relative to their teaching role, it highlights the need for post-secondary institutions to better socialize new faculty both at the institutional and department levels. Such initiatives could potentially defray the stress that new faculty experience surrounding the teaching role.

Three fundamental assumptions undergird the organizational socialization process (Van Maanen, 1978). First individuals transitioning between institutions/organizations are said to be in an anxiety producing situation. This review of literature supports this notion as empirical studies have found that new faculty experience stress surrounding finding a balance between teaching, research and service in addition to the lack of teaching support and preparation that many new faculty experience in their departments. Secondly, the socialization process does not occur in a vacuum, new members to an organization during this phase are looking for assistance in navigating their new terrain. As teaching preparation continues to be a problem reported by both doctoral students and new faculty, institutions are charged with the responsibility of providing support services that are geared towards socializing new faculty to their teaching role. Lastly, Van Maanen suggests that the stability and productivity of any organization is a function

of the manner in which new members are socialized. It could be inferred from Van Maanen's claim that if new faculty are not effectively socialized to their teaching role, students will not be the only losers - institutions stand to lose new faculty as well, as they may decide to move on to other careers outside of academe.

The inclusion of this literature on new faculty socialization to the teaching role was of paramount importance as it establishes that the problem on teaching preparation is not just something being reported by doctoral students, but also by new faculty. It also suggests that post-secondary institutions are doing a less than adequate job of socializing new faculty to their teaching role. Based on this premise, teaching preparation remains a problem confronted by new faculty, and one which requires further investigation.

Summary

The literature on new faculty socialization as it relates to their teaching lends further support for the need to conduct the current study. This review of literature approached teaching preparation from both an anticipatory and organizational socialization lens. There are countless studies suggesting that doctoral programs are doing a less than adequate job of preparing doctoral students for their teaching role. As anticipatory socialization to the academic profession is most proximal during doctoral training, it could be said that doctoral programs are failing to adequately socialize doctoral students to their teaching role. From an institutional socialization lens, how new faculty are socialized to their teaching role may vary based on institutional type and department. However, what is known is that new faculty report not being adequately trained for teaching and recommend doctoral programs better prepare doctoral students for their college teaching role. This review of the literature has presented empirical works which help to illuminate the lack of socialization new faculty experience relative to their teaching role in

addition to highlighting the need for post-secondary institutions to better socialize new faculty both at the institutional and department levels.

Over the past few decades, considerable debate has been raging in higher education in relation to the relative emphasis that should be placed on research and teaching. The literature suggests that these and other scholarly activities may actually vary based on the nature of the discipline. The following section of the review of literature highlights the nature of academic disciplines and their differences as it relates to faculty work, and provides further support for the researcher's rationale to explore junior faculty perceptions of their doctoral level teaching preparation through this lens.

Nature of Academic Disciplines and Their Differences

The training that doctoral students who aspire to the academic profession receive occurs within the context of their discipline. Discipline according to Beyer and Lodahl (1976) provides the structure of knowledge in which faculty members are trained and socialized to the professoriate. In a similar conceptualization, Weiland (1995) contends that disciplinary fields represent a system of order and control resulting from training. Employing a traditional approach Ylijoki (2000) claims that the core of a discipline can best be conceptualized as a moral order, which defines beliefs, values and norms of the culture. Based on this premise, disciplines are tasked with the responsibility of attracting and training the next generation of scholars. In support of Beyer and Lodahl's conception of disciplines, Finnegan and Gamson (1996) suggest that disciplinary fields are differentiated knowledge domains with distinct epistemologies (nature of knowledge) and methods. Beyer and Lodahl (1996) further claim that disciplinary fields are:

> pervasive in all stages of the input-throughput-output feedback cycle. [Disciplines] provide the structure of knowledge in which faculty members: (1) are trained and socialized before they are input as members of the university; (2) carry out their throughput tasks of teaching, research, administration, and the like; (3) produce research

> and educational outputs; and (4) earn the esteem, disinterest, or worse of their colleagues and students—a form of output that frequently becomes feedback (Beyer & Lodahl, 1976 p, 114).

There are immense differences between disciplines so much so that Ruscio (1987) suggests that disciplines are a major source of fragmentation within the academy. This section of the review of literature will highlight key analytic frameworks for classifying disciplines in an addition to providing a review of the empirical works which have found significant differences in faculty work relative to teaching.

Disciplinary Classifications

A review of the literature on discipline differences revealed two key and well documented analytic frameworks for classifying academic disciplines for purposes of comparative study/analysis - level of paradigm development and consensus. Paradigm development as advanced by Kuhn (1962) refers to the extent a field is governed by an epistemology. Specifically, Kuhn defines paradigm as something the members of a scientific community share in common (a body of knowledge that is subscribed to by all within a disciplinary field). Kuhn's conception of paradigm development specifically addresses the level of agreement within a field relative to what are important problems to study and their corresponding methodological approach. Kuhn claims that fields with well developed paradigms such as physics, chemistry and geology have a clear way of defining and investigating knowledge. Conversely, disciplines with less developed paradigms are characterized by disagreement as to what constitutes new knowledge, what methods should be utilized for investigating problems, what criteria are applied and which theories are proven. According to Kuhn, disciplines with highly developed paradigms are marked by high levels of agreement (high consensus), while disciplines with less developed paradigms are marked by low levels of

agreement (low consensus) (e.g., social sciences, education, humanities). The terms paradigm development and consensus are used interchangeably in describing dimensions of academic disciplines in addition to explaining variations among scientific disciplines (Braxton & Hargens, 1996; Hargens & Kelly-Wilson, 1994).

In exploring the importance of both the epistemological and social underpinnings of disciplines, Biglan (1973a, 1973b) work has provided a useful framework for conducting empirical studies aimed at unearthing disciplinary variations. Biglan developed his taxonomy based on the responses of faculty from a large public and a private liberal arts college. The taxonomy was derived from a non-metric, multidimensional scaling statistical approach conducted on faculty responses to a series of questions regarding their perceptions of the relative similarity of selected subject matter areas. Through his research, he was able to identify three dimensions of academic disciplines: (a) the degree to which a paradigm exists, (hard vs. soft, paradigmatic vs. non-paradigmatic) (b) the degree of concern with application (pure vs. applied) and (c) concern with life systems (life vs. nonlife systems). Based on his taxonomy, the natural and physical sciences possess more clear delineated paradigms (high consensus) and thus fall in the hard category. Disciplinary fields of learning that fall in this category include astronomy, chemistry, geology, microbiology, physics etc. Conversely, disciplinary fields having less developed paradigms (low consensus) fall in the soft category. Disciplinary fields of learning that fall in this category include English, political science, psychology, sociology etc. As is evident in his taxonomy, applied fields tend to be more concerned with the application of knowledge (agronomy, engineering, education etc.) while pure fields tend to be less concerned with the application of knowledge and more with its creation (chemistry, geology, physics etc.). The distinguishing characteristic of Biglan's life vs. non-life dimension is the extent of

involvement with living organisms. Biglan's clustering of academic task areas in the three dimensions previously discussed is displayed in Table 3.

Table 3
Clustering of Academic Task Areas in Three Dimensions

	Hard		Soft	
Task area	**Nonlife system**	**Life system**	**Nonlife system**	**Life system**
Pure	Astronomy	Botany	English	Anthropology
	Chemistry	Entomology	German	Political science
	Geology	Microbiology	History	Psychology
	Physic	Physiology	Philosophy	Sociology
	Math	Zoology	Russian	
			Communication	
Applied	Ceramic engineering	Agronomy	Accounting	Educational administration and supervision
	Civil engineering	Dairy science	Finance	Secondary and continuing education
	Computer science	Horticulture	Economic	Special education
	Mechanical engineering	Agricultural economics		Vocational and technical education

Note: From A. Biglan, pp. 204-213, "Relationships between subject matter characteristics and the structure and output of university departments," *Journal of Applied Psychology,* 53(3).

Placed within the context of the present study, Biglan (1973a) suggests that teaching and research may bring about differing degrees of social connectedness. This notion of social connectedness is important in exploring preparation for teaching through a disciplinary lens as it could explain any variations in junior faculty perceptions that may arise as a result of data collected in the study. While the debate continues within higher education relative to the emphasis placed on teaching and research, coupled with doctoral education's longstanding tradition of developing research competencies oftentimes at the expense of teaching preparation, Biglan's taxonomy has proved helpful in disaggregating these knowledge domains based on discipline. In testing his model, Biglan found significant differences in the behavioral patterns of faculty with respect to social connectedness in their commitment to teaching, research and

service roles, and publication output. Biglan (1973a) claims that the relative emphasis on teaching and research is dependent on the nature of the discipline. The three dimensions (hard/soft, pure/applied, life system/nonlife system) were all related to the structure and output of academic departments (Biglan, 1973a). Specifically, hard or high consensus disciplines were more oriented to research activities as evidenced by their greater social connectedness. Biglan claims that faculty in these disciplines were more committed to research and less so to teaching when compared to their counterparts in soft or low consensus disciplines. On the pure/applied dimension, evidence suggests that faculty in pure academic disciplines favored research activities more so than their counterparts in applied disciplinary fields. In support of Biglan's findings, Braxton and Hargens (1996) suggest that "variation in scholarly consensus affects the relative emphasis on research and teaching activities (p. 36). The authors maintain that most discipline differences are related to variations in scholarly consensus (high vs. low). The empirical works of Biglan (1973a, 1973b) and Kuhn (1962) taken together, have stimulated much research in the area of discipline difference.

Understanding the nature of academic disciplines and their differences is an imperative in understanding faculty work in post-secondary settings. This is supported in the works of Beyer and Lodahl (1976) who posit that the discipline provides the structure of knowledge in which faculty members are trained and socialized to the academic profession. Because socialization to the professoriate occurs within the confines of the discipline, simply lumping together data on faculty from different academic areas may provide an inaccurate account of the phenomenon under investigation (Biglan, 1973a). Following is a discussion of empirical works which support this conception in addition to further illuminating discipline differences in teaching.

Related Studies

Viewed from a disciplinary lens, studies have found differences among faculty members in terms of their research and teaching (Biglan, 1973a, 1973b; Becher, 1989; Braxton & Hargens, 1996; Lodahl & Gordon, 1972; Smeby, 1996). In a national study exploring disciplinary differences in university teaching, Smeby (1996) employed a survey approach in collecting data from faculty members at Norwegian universities. The researcher was particularly interested in finding out to what extent differences existed between disciplinary fields relative to the amount of time utilized by university faculty for teaching and supervision. Results of the study showed significant disciplinary differences in the time faculty spent on teaching and preparation. Of all disciplinary groups in Smeby's study, faculty in soft fields (low-consensus disciplines) spent most of their time on teaching preparation. A closer examination of Smeby's findings revealed considerable differences in disciplinary practices as well. For example, the author found that faculty in soft pure disciplines spent most of their time on teaching when compared to those in hard applied disciplines. Smeby's findings are congruent to those of Biglan (1973a) who in an earlier study found that there exist significant differences between academic fields in terms of the proportion of time used for teaching. Compared with faculty in soft disciplines, faculty in hard disciplines spend the least amount of time on teaching preparation. As faculty in these disciplines tend to be more oriented to research, coupled with the notion that doctoral student socialization to the profession occurs within the confines of the discipline, it is reasonable to believe that there may be some variations between junior faculty perceptions of overall preparedness for teaching when viewed from a disciplinary lens.

Dating back to the 1960's, researchers have been studying whether everyday academic practices and experiences of scholars vary across disciplines (Braxton & Hargens, 1996). In

their influential contribution, Braxton and Hargens conducted an exhaustive review of works on discipline differences. The authors believe that most of discipline differences are attributed to variations in the levels of scholarly consensus. This review of the literature supports the notion that variations in scholarly consensus have an effect on the relative emphasis on research and teaching. Braxton and Hargens suggest that faculty in high consensus disciplines are more oriented to research when compared to their counterparts in low consensus disciplines. This they believe is supported by the higher publication rates, the greater emphasis on research goals, and the higher availability of external funding for research which are characteristic of high consensus disciplines. Conversely, the authors claim that faculty in low consensus disciplines, who are more oriented to teaching is reflected in time spent and devoted to teaching. This conclusion is supported in the works of Clark (1987) and Smeby (1996) who conclude that faculty in soft fields (low consensus disciplines) spend most of their time on teaching preparation. Empirical works have also helped in distinguishing departmental goals and emphasis between high and low consensus disciplines. Braxton and Hargens (1996) assert that departmental emphasis on research is greater in high consensus disciplines. High consensus disciplines are more oriented to research; therefore, according to Braxton and Hargens teaching/research complementarities, tend to be lower. Similarly, evidence suggests that high consensus fields tend to be more universalistic. Braxton and Hargens believe that within high consensus disciplines merit, as opposed to social/personal characteristics, is of more importance. The above mentioned characteristics identified by Braxton and Hargens (1996) that distinguish high and low consensus disciplines and later summarized by Del Favero (2001) are shown in Table 4. These works, drawn from the literature, strongly suggest that teaching can be distinguished by disciplinary

background and thus stimulated the researcher's interest in exploring this phenomenon from a disciplinary lens.

Table 4
Behavioral Distinctions between High and Low Consensus Disciplines

Aspects of work/organization	High consensus	Low consensus
Emphasis on work roles	More oriented to research	More oriented to teaching
Departmental emphasis	Research goals	Teaching activities
Teaching/research complementarities	Low	High
External research funds	Greater availability	Less availability
Journal rejection rates	Lower	Higher
Departmental effectiveness	Higher	Lower
Resource acquisition	More successful	Less successful
Work norm tendencies	Universalistic	Particularistic

Note: From M. Del Favero, 2001 pp. 34, "The influence of academic discipline on administrative behaviors of academic deans," *Doctoral Dissertation*

In his influential study exploring faculty work across six disciplines within the United State (US) and the United Kingdon (UK), Becher (1989) found disciplinary variations as it relates to faculty work. Specifically, Becher found that faculty within hard-pure disciplines were more oriented to research when compared to their colleagues in soft disciplines. Becher claims that the primary dimensions that differentiate disciplines are the hard-soft, pure-applied dimensions - these being the same as outlined by Biglan (1973b) in an earlier study.
In support of these findings, a later study of graduate education in the UK conducted by Becher, Henkel and Kogan (1994) found disciplinary variations in the supervisory process and research experience of graduate students. Becher and his research associates found stark differences between hard-pure and soft-pure disciplines in the supervisory process and research experience

of graduate students. The authors found that graduate education in hard-pure fields (more oriented to research) was rooted in developing research competencies. They believed the supervisory process to more resemble an apprenticeship model where students work closely with a major professor on their research. Conversely, findings relative to soft-pure disciplines were quite to the contrary; students' research were not necessarily linked to that of their major professor. Students within these disciplines more often choose their own topics and work more independently on their research. While this study did not address teaching or teaching preparation, it helps in reinforcing the notion that high consensus disciplines are more oriented to research in addition to supporting disciplinary variations in faculty work.

In validating Biglan's taxonomy, Smart and Elton (1982) realized similar results using data obtained from a nationally representative sample of faculty from 301 institutions of higher education. Discriminant analysis was conducted to test the validity of the three dimensions of Biglan's taxonomy and to ascertain whether or not there were any differences among faculty affiliated with academic disciplines classified by his taxonomy. These differences among faculty members, as evidenced by the literature, have been explained by the genuine differences between fields of learning (high consensus vs. low consensus disciplines).

In their study on the structure of scientific fields and the function of university graduate programs, Lodahl and Gordon (1972) reported that faculty in high consensus fields were more likely to use TA's than those in low consensus fields. Using data collected from 80 university graduate departments by means of a survey instrument across 4 disciplines (physics, chemistry-high consensus disciplines; sociology, political science-low consensus disciplines), the authors found that disciplinary fields with high paradigm development (high consensus on the knowledge scale) differ in many ways from fields with low levels of consensus. Lodahl and

Gordon claim that high consensus disciplines are unique as they provide an accepted and shared vocabulary for discussing their field in addition to well structured and detailed information relative to what has been successful in the discipline. This, they suggest, is one explanation as to why the use of graduate students as teaching assistants is more likely in high consensus disciplines. Another explanation surrounds the notion that faculty in high consensus disciplines tend to bring in more funding to their institution in the form of grants, allowing them the opportunity to buy out of teaching requirements and hiring teaching assistants which in most cases allows for more time spent dedicated to research. In support of this notion, studies have shown that external funding for research and lower journal rejection rates are key elements reinforcing the strong emphasis on research in high consensus fields (Braxton & Hargens, 1996). Thus it could be inferred from these results that doctoral students in high consensus fields, while strongly oriented to research, spend some degree of time in front of the classroom as TAs and likely more so than those in low consensus fields who are not utilized as TAs as much. Evidence of this is reported by Golde and Dore (2001) who found in their study that teaching requirements (teaching assistantships) are most common in science fields, especially chemistry and biology (high consensus disciplines) and least common in disciplines like history (low consensus discipline).

According to Nyquist et al. (1989), TA's provide much of the undergraduate teaching at many colleges and universities. While it may be a good thing that programs allow and or require their students to serve as TA's, it is speculative whether this is a result of a genuine concern and desire to help students learn about the teaching role (construct courses, deliver lectures, grade work etc.) or simply a means to an end in allowing faculty to focus on their research or simply a mechanism by which universities reduce costs associated with teaching. Golde and Dore (2001)

posit that for those who aspire to the professoriate, taking progressively responsible roles in teaching is an imperative. The authors claim that although teaching assistantships are more common in high consensus fields, opportunities to take on progressively responsible roles in teaching is more common in low consensus disciplines, which could be explained by these disciplines' greater orientation to teaching.

As socialization to the teaching role typically occurs within the confines of the discipline, learning about teaching through such mediums as workshops or seminars according to Golde & Dore (2001) is most common in low consensus fields. According to the authors, these opportunities are least available in high consensus fields even though these fields are more likely to require doctoral students to serve as TA's. The authors state that doctoral students in high consensus fields seem to be at a disadvantage in their development as teaching scholars. In their study utilizing a sample of doctoral students (n=4,114) from 11 arts and science disciplines derived from 27 universities, Golde and Dore's (2001) findings revealed that approximately half of doctoral students in low consensus disciplines in their study reported feeling prepared by their programs to teach lecture courses. By contrast only 19.4% of doctoral students in high consensus disciplines reported feeling prepared for teaching. These findings suggest significant disciplinary differences in perception of preparedness for teaching. While these conclusions support the works of Biglan (1973a,b) and Braxton and Hargens (1996), they also support the conclusions of many scholars who report that doctoral programs across disciplines are not adequately preparing doctoral students for their college teaching role. It could be inferred from these finding that while there may be significant differences in junior faculty perceptions of their doctoral level teaching preparation from a disciplinary consensus lens, current initiatives within

the post secondary context geared towards better teaching preparation (e.g., PFF and Centers for Teaching Excellence) may be bridging this gap across disciplines.

The inclusion of this literature on discipline difference was key as it supports the researcher's rationale for exploring junior faculty perceptions of their doctoral level teaching preparation from this lens. There are serious implications for disciplinary difference in teaching as these empirical works would suggest that any initiative geared towards better teaching preparation must be rooted in the discipline.

Summary

Discipline differences have been variously described (hard vs. soft, high consensus vs. low consensus, paradigmatic vs. non-paradigmatic). In fact, disciplines differ so much so that Ruscio (1987) suggest that disciplines are a major source of fragmentation within the academy. Two key analytic frameworks for classifying and better understanding the nature of disciplines and their differences were presented and discussed in this section of the review of literature (i.e., level of paradigm development and consensus). In support of these frameworks which highlight the underpinnings of discipline differences, several related studies were later presented and discussed. The researcher's rationale behind reviewing this body of literature was largely inspired by the pioneering works of Biglan (1973a, 1973b). Specifically, the author suggests that simply looking at data on faculty work without controlling for discipline and other institutional factors (teaching vs. research oriented institution) may provide an inaccurate account on what is being investigated.

Chapter Summary

This chapter has provided a review of the relevant literature that informs this study which employed a disciplinary approach in investigating junior faculty perceptions of their doctoral

level teaching preparation. Empirical studies must be conducted to inform our understanding of what are those experiences from a disciplinary consensus perspective that were effective in preparing junior faculty for their college teaching role. It is my hope, that this study will be the first step of many towards better understanding this phenomenon. While this review of literature is replete with many authors calling for better teaching preparation for doctoral students, empirically there is little known about activities that support teaching preparation. This study, employing a disciplinary lens, begins to address that gap in the literature by empirically investigating factors believed to contribute to effective teaching preparation.

There were four bodies of literature found to be pertinent to the nature of the study. The literature on the teaching role in higher education illuminated what the teaching role entailed and what skills are believed to be important. Naturally, the review of literature began with an exploration of the teaching role, as it is central to the study. The literature on doctoral students experiences as it relates to their teaching preparation was then explored, as countless studies have found evidence that the training doctoral students receive does not adequately prepare them for faculty roles; specifically there is general consensus surrounding the lack of teaching preparation. This body of literature was central in identifying the problem which this study seeks to investigate. As part of this review of the literature, the researcher wanted to capture what initiatives were in place to help in better preparing doctoral students for their college teaching role. A discussion of PFF programs and the like followed that illuminated current initiatives which are believed to foster better preparation for teaching in the academic profession. While many of the activities suggested by these programs to better prepare doctoral students for college teaching are consistent with the recommendations of other scholars and captures elements of the teaching role, these have not been empirically tested to discern their effectiveness in preparation

for teaching. Following the synthesis of the literature on doctoral students and their experiences relative to teaching preparation, the literature on faculty socialization to the teaching role was discussed. This review of the literature approached socialization to the teaching role through an anticipatory lens (i.e., graduate students' perspectives) and an organizational lens (i.e., faculty as newcomers to the institutional organization). The nature of academic disciplines and their differences was then discussed, as this body of literature suggests that disciplines differ along many lines and that simply lumping together data on faculty work may provide an inaccurate account of what is being investigated. This body of literature revealed significant disciplinary differences in teaching. The review of this body of literature was of paramount importance as it supports the researcher's rationale for investigating doctoral level teaching preparation through a disciplinary lens.

This review of the extant literature relative to the problem (teaching preparation) helps to illuminate the need for the study in addition to providing the researcher's rationale for conducting such a study. Chapter Three provides a detailed methodological approach employed in exploring the problem and corresponding research questions this study seeks to address.

CHAPTER THREE

METHODOLOGY

The purpose of the study was to examine junior faculty perceptions of their doctoral level teaching preparation. The study took a disciplinary approach in exploring junior faculty perceptions of the training they received in doctoral programs for teaching in collegiate settings. The current literature on doctoral students' experiences suggest that doctoral degree programs are doing a less than adequate job of preparing future faculty (Austin, 2002a, 2002b; Golde, 2006; Golde & Dore, 2004; Meacham, 2002; Silverman, 2003; Sorcinelli & Austin, 1992). Specifically, the aforementioned scholars cite teaching preparation as an area of growing concern. With teaching being at the epicenter of learning, doctoral teaching preparation could potentially be linked to college retention rates and the quality of learning taking place in the classroom. New faculty entering the professoriate are not only tasked with the responsibility of learning the role of faculty members (Tierney & Bensimon, 1996), but are also expected to be effective teachers.

McCoy (2006) suggests that doctoral training is a period of anticipatory socialization where the aspiring faculty member learns the values of the group to which they aspire. While this has been cited by some higher education scholars as an important first step in the socialization process (Antony & Taylor, 2001; McCoy, 2006), Austin (2002b) reports that both aspiring and new faculty possess a limited understanding of faculty roles.

This chapter presents the methods used in the study, which took a disciplinary approach in exploring junior faculty perceptions of their doctoral level teaching preparation. The following sections describe the research design, research questions, participants, contact process,

response rate, selection criteria, instrumentation, expert panel review, pilot study for pretesting the modified instrument, justification for use of a survey design, procedures and data analysis.

Research Design

The study employed a quantitative approach in examining the research questions. Junior faculty from SREB Four-Year 1 institutions served as the population of interest. Specifically, junior faculty in physics, chemistry, geology, biology (high consensus disciplines) sociology, political science, psychology, economics (low consensus disciplines), were solicited to take part in the study. As disciplines differ along many dimensions (Braxton & DelFavero, 2000), exploring the research questions through a disciplinary lens is integral in understanding variations among academic fields. Biglan (1973b) asserts that "lumping together data from different areas may provide an inaccurate account of the organization of specific areas" (p. 212). Thus, by lumping all junior faculty into one category without taking into account the inherent differences in disciplines may result in an inaccurate reflection of their perceptions of their doctoral level teaching preparation. An instrument developed by Hall (2007) was modified by the researcher for the purpose of data collection.

Research Questions

The omnibus question this study seeks to address is whether or not there are discipline differences in junior faculty perceptions of their doctoral level preparation for college teaching. In exploring this question, four research questions raised by the problem of teaching preparedness were addressed. They are as follows:

Research Question #1 – What are those activities by disciplinary consensus that junior faculty engaged in during their doctoral studies that prepared them for college teaching?

Research Question #2 – Based on disciplinary consensus, what relationship exists between activities perceived to be effective in preparation for teaching and junior faculty perceived level of overall preparedness for college teaching?

Research Question #3 –Do junior faculty perceptions of the effectiveness of preparation for teaching sub roles differ by disciplinary consensus?

Research Question #4 – Do junior faculty perceptions of overall preparedness for college teaching differ significantly by disciplinary consensus?

Participants

The population of interest this study seeks to capture comprised junior faculty from SREB Four-Year 1 public post-secondary institutions. Based on SREB institutional classification, Four-Year 1 institutions are defined as institutions awarding at least 100 doctoral degrees that are distributed among at least 10 classification of instructional program (CIP) categories with no more than 50% in any one category (Southern Regional Education Board, 2010). Limiting the population to Four-Year 1 institutions was intended to minimize the inherent differences that typically exist across institutional type (Clark, 1987). Recognizing that this group of institutions is more oriented to research, it is reasonable to expect that doctoral students' socialization to the academic profession is more likely to emphasize research, thus making their effective preparation for teaching more challenging. Defining the population of interest in this way was done in an effort to represent and control for institutional differences, thereby allowing for more close scrutiny of the disciplinary factor. Junior faculty from all SREB Four-Year 1 institutions (n=35) comprised the population for the study. For a list of the targeted institutions, please refer to Appendix A.

The target population was delimited to junior faculty in four high consensus disciplines (physics, chemistry, geology, biology) and four low consensus disciplines (political science, sociology, psychology, and economics). A purposive sample of junior faculty from the aforementioned institutions were recruited to participate in the study. The sample (Junior Faculty*)* is defined as any tenure track faculty member who has earned a terminal degree, is within his/her first faculty appointment and who has been in position a maximum of three years. Although the study relies on a nonprobability sample, the statistical methods utilized are robust to violations of simple random sampling assumptions. Huck (2004) suggests that although inferential statistics can be utilized for nonprobability samples, he urges care in generalizing results from a sample to the population. As the study relied on a large sample of junior faculty representing eight disciplines from (n=35) institutions, any potential violations of homogeneity of variance was minimized. In addition to controlling for disciplines, the researcher also controlled for years in position and verified via the demographic section of the survey instrument whether or not their current teaching position was their first within the post secondary context. The inclusion of these criteria in identifying and narrowing the relevant sample aided in supporting the goals of the study. Contact information for junior faculty was derived from each university department website. The sample was contacted by electronic mail through an online survey service (Qualtrics ^{TM}) (see Contact Process section for details).

Contact Process

The names, contact information (e-mail addresses) and faculty rank of each junior faculty was collected from the selected universities department website. This information was organized by the following disciplines: political science, sociology, psychology, economics, physics, chemistry, geology and biology. In an effort to ensure the most current contact information for

the sample of interest, this data was collected between December 2010 and January 2011. As data collection began in February of 2011, the researcher believed that this would be sufficient time for institutions to remove faculty from their contact list who were no longer at the institution in addition to adding new hires. The researcher further verified sample contact information by randomly selecting 100 faculty members from the contact list and contacting departments to verify their tenure status. Subsequent to the expert panel review of the modified instrument, pilot testing and the University of New Orleans's Institutional Review Board (IRB) approval, the self administered survey instrument was e-mailed to subjects via Qualtrics ™. The invitation letter provided information about the topic, purpose of the study, consent to participate and a link to the on-line survey. (See Appendix B and C for sample letters that were e-mailed to subjects in the study.)

Selection Criteria for Disciplines

The sample for the study as discussed elsewhere in this chapter comprised junior faculty from SREB Four-Year 1 institutions in four high and four low consensus disciplines. Disciplines were selected using Biglan's (1973a) characteristics of subject matter in different academic areas in conjunction with Kuhn's (1962) conception of paradigm development in academic fields. Biglan (1973a) used multidimensional scaling of scholars' judgments relative to the similarities of the subject matter of different academic disciplines. In his study, academic disciplines were clustered according to their (a) concern with a single paradigm (hard vs. soft), (b) concern with application (pure vs. applied), and (c) concern with life systems (life versus nonlife systems). The author posits that the distance between points (disciplines) in the same cluster is a reliable indication of the relationship among different academic areas. This implies that disciplines that are closely grouped based on multidimensional scaling are more similar than those that are

widely dispersed. The researcher employed this approach for selecting the disciplines surveyed in the study.

Kuhn's (1962) conception of paradigm development - the level of agreement in field relative to what are important problems to study and the appropriate methods to be used - was also adopted in selecting the particular disciplines in the study. According to Kuhn, fields with well developed paradigms such as physics, chemistry, geology, biology have a clear way of defining and investigating knowledge. Conversely, disciplines with less developed paradigms are characterized by disagreement as to what constitutes new knowledge, what methods should be utilized for investigating problems, what criteria are applied and which theories are proven. According to Kuhn, disciplines with highly developed paradigms are marked by high levels of consensus, while disciplines with less developed paradigms are marked by low consensus levels (e.g., social sciences, education, humanities). The terms "paradigm development" and "consensus" are used interchangeably in describing dimensions of academic disciplines (Braxton & Hargens, 1996; Hargens & Kelly-Wilson, 1994). Table 5 provides a visual representation of the framework used in selecting the disciplines for the study.

Table 5
Visual Representation of Disciplines selected for study

	High Consensus Disciplines (Well-developed paradigms Kuhn (1970))	Low Consensus Disciplines (Less-developed paradigms Kuhn (1970))
Disciplines closely aligned based on Biglan (1973a) multidimensional scaling	- Chemistry - Geology - Physics - Biology	- Political Science - Psychology - Sociology - Economics

Instrumentation

This section of the methodology details the development of Hall's (2007) instrument titled the Preparation for Teaching Survey, followed by a section which details the researcher's

modifications to the aforementioned data collection instrument. Hall's survey instrument (with modifications) was used in the study as the items on the instrument - based on a comprehensive review of the literature - are consistent with experiences which may contribute to effective teaching preparation.

Hall's instrument (Preparation for Teaching Survey)

Within the literature on doctoral students' experiences/socialization, doctoral students consistently report not feeling adequately prepared for teaching (Austin, 2002b; Golde & Dore, 2001, 2004; Meacham, 2002; Nerad, Aanerud & Cerny, 2004; Nyquist et al., 1999; Nyquist & Woodford, 2000; Silverman, 2003). While this problem has been widely discussed within academe, there is a great deal of speculation relative to what experiences might contribute to effective teaching preparation (Golde, 2004; Hall, 2007; Meacham, 2002; Silverman, 2003). Acting on this knowledge, Hall (2007) developed the *Preparation for Teaching Survey* to study the experiences of counselor education graduates.

The *Preparation for Teaching Survey* (PFTS) is a 58-item survey instrument which employs Likert scales with anchored responses. The first nine items on the instrument are designed to collect demographic information namely: sex, ethnicity, tenure status, type of program employed in, type of institution, academic rank, number of years serving as a faculty member, degrees earned and an item which asks participants if their doctoral training program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The remaining items on the instrument have two variations of scales with anchored responses. These items ask participants two types of questions (how often certain events occurred during their doctoral training, and how effective they believe those events to be in preparing them for teaching). On one scale, participants assign a level of effectiveness to each of

23 events on a scale of 1 (not at all effective) to 7 (very effective). Relative to the other scale, participants assign a level of frequency to each of 16 events on a scale of 1 (never) to 7(very frequently). The last question on the instrument asks participants to provide any additional information about activities or experiences that could have helped in better preparing them for college teaching.

Hall (2007) developed the items on her instrument based on experiences cited within the literature that might better prepare doctoral students for teaching. The works of Austin (2002a; 2002), Meacham (2002) and Silverman (2003) were key in the development of the items the instrument measures. Silverman's (2003) research on the role of teaching in the preparation of future faculty was particularly influential in the development of items (18, 19, 20, 21, 22, 23, 24, 25 and 37). Silverman purports that taking courses in teaching, being a participant in a teaching practicum, being mentored, sharing resources with faculty, supervision, discussions about teaching philosophy, and discussions about why instructional decisions are made in courses are all activities that could aid in better preparing the next generation of faculty members. While these activities are cited by others as a means of better preparing the next generation of faculty for college teaching, they have not been empirically tested with a large sample of faculty from varying academic disciplines. Austin's (2002a, 2002b) works relative to preparing the next generation of faculty was instrumental in Hall's development of items 10-17, and 28-35. Austin, using a sample of TA's in her study, found that most participants in her investigation reported not experiencing sufficient guidance and training in many aspects of teaching. Based on the results of her study, the researcher advanced several recommendations in preparing future faculty (supervision, feedback about teaching, time for reflection on feedback about teaching, observing others teaching, participation in designing a course, teaching an entire course, gaining knowledge

about individual learning differences). Lastly, Meacham (2002) influenced the development of items 14, 15, and 38-42. These items were influenced by Meacham's recommendations in preparing a cadre of future faculty for teaching to include preparing a course syllabus, engaging in self-assessment and completing a teaching portfolio.

According to Hall (2007), 16 items on the instrument were generated based on an expert panel review of the survey in conjunction with feedback received from dissertation committee members. These items include numbers 26,27,36,43, and 44-57 of the PFTS (For a copy of Hall's instrument, see Hall, S., & Hulse, D. (2010). The researcher sought permission from Hall to modify and use her instrument for the purpose of the study (see Appendix D for permission letter).

Modifications to Hall's Instrument

This section outlines the changes to Hall's instrument in addition to providing the researcher's rationale behind the need for these changes.

Of the nine items in the personal information section of Hall's (2007) instrument, 4 items were taken out (i.e., items 4 - type of program in which you are currently employed, 5 - type of institution in which you are currently employed, 8 - was your doctoral training program CACREP accredited and 9 - please list all degrees that you currently hold). Item 4 was removed from the instrument as this data is not pertinent to the goals of the study. Item 5 was removed as the study is delimited to SREB Four-Year 1 institutions making this information irrelevant. Item 8 was removed as it was geared towards counselor education programs which does not fit the set of disciplines this study explored. Item 6 - academic rank was reworded to (what is your faculty rank) removing two possible selections (instructor and lecturer). This was done as the sample of interest is tenure track faculty members at the assistant professor rank.

Several new items were added to the demographic data section of the instrument in an effort to allow the researcher to verify the subject inclusion criteria (i.e., item 1 - are you employed full-time in a tenure track position, item 6 - in what year did you earn your highest degree, item 7 - please indicate the year in which your current faculty appointment began, item 8- is this your first faculty position within higher education, item 9 - what is your broad disciplinary area and item 10 - do you primarily teach graduate or undergraduate students) (see Appendix E for modified demographic information). These items were added in an effort to capture the population of interest (i.e., junior faculty who for the purpose of this study are defined as any new, tenure track faculty member who has earned a terminal degree, is within his/her first faculty appointment and who has been in position a maximum of three years). The population was defined in such a way as the researcher believes that it is reasonable to expect that their doctoral experiences would be freshly embedded in their minds, making for a rich study. Item 1 was designed in such a way that if the answer was no (i.e. not employed in a tenure track faculty position) the participant was thanked for their time and the survey closed. Again, this inclusion criterion was necessary in an effort to capture the population of interest this study seeks to explore. The following items are directly related to the inclusion criteria developed for the purpose of the study: Item 2 – what is your faculty rank, 3 – what is your tenure status, 7 – please indicate the year in which your current faculty appointment began, 8 – number of years as a faculty member, 9 – is this your first faculty position within higher education. Skip logics were also placed in question 2, 3, 8 in an effort to further capture the relevant sample.

Six new items were added to the instrument based on a comprehensive review of the literature. These items are consistent with other elements of the teaching role not measured by

the instrument in conjunction with recommendations from centers for teaching excellence relative to activities which may augment doctoral students teaching preparation (see Appendix E for new items).

Two items were inspired by the Preparing Future Faculty (PFF) program, a national initiative aimed at transforming how aspiring faculty are prepared for academic careers (Preparing Future Faculty, 2009).

1. As a doctoral student, did you participate in activities sponsored by your institution's center for teaching improvement or the like?
2. If you participated in activities sponsored by your institution's center for teaching improvement or the like, please rate the center program's effectiveness in preparing you for teaching.

PFF programs provide doctoral students, in addition to master's and postdoctoral students, opportunities to learn about and experience faculty responsibilities. Essentially, these programs aid in socializing aspirants to the academic profession. This is achieved by providing educational experiences that are informed by the kinds of responsibilities faculty members have in different institutional settings. A similar example is that of the Center for Teaching at Vanderbilt University which is committed to developing excellence in teaching (Vanderbilt University Center for Teaching, 2011). Recognizing that developing research competencies takes time, the Center for Teaching at Vanderbilt University according to its website, promotes teaching and learning as an ongoing process of inquiry, experimentation and reflection. Another example is that of the University of Michigan's Center for Research on Learning and Teaching (Singer, 2002). There are a variety of these types of programs across institutions of higher education in the United States. While there are many similarities, a common thread exists across

institutional type and that is a strong commitment to enhancing learning and teaching excellence (Singer). Some examples of PFF activities include the following: providing opportunities where students can attend seminars on college teaching; professional and career issues; workshops on developing portfolios documenting expertise in teaching, research and service; teaching a unit or an entire course and receiving feedback from mentor/mentors; shadowing faculty. These activities are consistent with many of the recommendations advanced by scholars in the review of literature as activities which could serve to better prepare doctoral students for their teaching role. While these activities have been advanced as recommendations to better prepare doctoral students for their teaching role, they have not been empirically tested from a disciplinary lens to unearth their effectiveness.

Four items were added to Hall's instrument based on a review of the literature that captures the teaching sub-roles (assessment and teaching to diverse learning styles) in post secondary settings.

1. How often did you have discussions with faculty about classroom assessments?
2. If you had discussions with faculty about classroom assessments, please rate the events effectiveness in preparing you for teaching.
3. How often did you have discussions with faculty about teaching to a diverse student population?
4. If you had discussions with faculty about teaching to a diverse student population, please rate the events' effectiveness in preparing you for teaching.

The addition of these items is supported in the works of Gaff and Pruitt-Logan (1998), Bess (2000), and Pruitt-Logan and Gaff (2004). Gaff and Pruitt-Logan (1998) claim that many graduate students do not acquire experience in the complex task of teaching. Specifically the

authors mention that graduate students gain no experience in assessing the achievement of goals within the classroom in addition to experience related to understanding and working effectively with diverse students. In a similar conception, Pruitt-Logan and Gaff (2004) call for doctoral programs to better prepare doctoral students for teaching to a student population with different skills, abilities and motivation. The authors mention that "with about 70 % of the high school cohort attending postsecondary education and large numbers of non-traditional students enrolled, there is a need for new professors to educate a heterogeneous student body" (Pruitt-Logan & Gaff, 2004 p. 191). Thus, understanding and working effectively with diverse students is critical in realizing this end. In Bess and Associate's (2000) conceptualization of the teaching role, the authors recognize that assessment is a critical teaching sub-role in which faculty evaluate the achievement of outcomes. The addition of these items to the instrument aids in fully capturing elements of the teaching role and their effectiveness in preparing doctoral students for college teaching. The following section provides a comprehensive review of the modified instrument by an expert panel.

Expert Panel Review of Modified Instrument

Content validity of the modified instrument was established through the assembly of an expert review panel. According to Huck (2004), content validity establishes whether or not an instrument measures what it is intended to measure. Huck (2004) postulates that an instrument's standing with regards to its content is determined by having experts review the instrument to ascertain whether or not it measures what it claims to measure. The researcher identified 6 subjects from the faculty rank to include Dr. Hall (developer of the *Preparation for Teaching Survey*), and other higher education scholars who have either conducted research on faculty work or have conducted extensive research using survey designs. Reviewers were sent a portable

document format file of the instrument as well as a link to the electronic version of the survey. They were asked to review the survey items for content validity, flow and clarity of directions. Several changes were made to the modified instrument based on feedback received from the expert panel. These changes are discussed below.

The *Preparation for Teaching Survey* used a 7 point scale with anchored response on both ends of the continuum which assessed frequency and effectiveness of experiences. It was recommended that each point be labeled, as this provides for ease of explanation and specificity in data analyses. A few panel members suggested that it also ensures that respondents look at and interpret the different points in the same way. Based on this feedback, the researcher used the following labels for each point on the scale for frequency and effectiveness.

Frequency

- Never (1)
- Less than Once a Year (2)
- Yearly (3)
- Less than once a Semester (4)
- Once a Semester (5)
- Monthly (6)
- Weekly (7)

Effectiveness

- Very Ineffective (1)
- Ineffective (2)
- Somewhat Ineffective (3)
- Neither Effective nor Ineffective (4)
- Somewhat Effective (5)
- Effective (6)
- Very Effective (7)

It was recommended that another option be added to item 10 in the demographic section of the survey to capture who junior faculty in the sample primarily taught. Given the nature of the institutions in this study (SREB Four-Year 1 institutions), it was felt that having a clearer understanding of who they primarily taught could help in fully describing the sample in addition to further disaggregating the data for other types of statistical analyses. Based on this recommendation the following modification to item 10 was made to the demographic section of the survey.

Do you primarily teach graduate or undergraduate students?

- ❍ Graduate students
- ❍ Undergraduate students
- ❍ Split 50% graduate students, 50% undergraduate students

Several panel members recommended removing five items from the instrument as they felt the experiences where too discipline specific and would not comport with the general experiences believed to support teaching preparation across the sample of disciplines. The following items were removed from the instrument as advised by the expert panel.

- Did you participate in a teaching practicum? Yes____ No ____
- If you participated in a teaching practicum, please rate this activity's effectiveness in preparing you for teaching:
- Were you encouraged to develop a teaching portfolio? Yes____ No ____
- Were you provided assistance in developing the portfolio by a faculty member? Yes___ No___ N/A____
- If you were given the opportunity to develop a teaching portfolio, please rate this activity's effectiveness in preparing you for teaching:

The researcher was comfortable removing these items as an informal survey of (n=5) faculty from high consensus disciplines suggested that these types of experiences were not the norm in their respective disciplines. Additionally, other items on the instrument compensated for the removal of these items such as teaching a course independently and teaching under the supervision of a faculty member. The expert panel believed that the remaining items on the instrument supported teaching preparation and captured the essence of the teaching role in higher education thus making them valid for use in this study. After the necessary changes were made

to the instrument, it was pilot tested in late January 2011. The following section provides a review of the process, results and actions taken.

Pilot Test of Modified Instrument

Pilot testing the data collection instrument is an important component of the research process. This allows the researcher the ability to make any modifications that may improve clarity and ultimately the response rate to the instrument. The researcher pilot tested the modified instrument prior to conducting the main study. As part of the pilot testing process, the questionnaire was administered to a small number of subjects (n=10) who fit the sample inclusion criteria. The sample was evenly split between high and low consensus disciplines. Six females and 4 males participated in the pilot study. Each subject was directed to the electronic survey administered via Qualtrics ™. Subjects were asked to provide feedback about the clarity of the survey items, ease of completion, clarity of survey directions, and the appropriateness of response scales. Some changes were made to the instrument as a result of feedback received from subjects. These changes are detailed below:

Question 45 – How many courses in college teaching did you take? Several subjects suggested that another category be added to capture whether or not these types of courses were available during doctoral training. The researcher decided to add another response category to the string of potential responses titled none available.

Question 55 – How many times did you attend seminars on college teaching? Several subjects suggested that another category be added to capture whether or not these opportunities existed during doctoral training. The researcher decided to add another response category to the string of potential responses titled none available.

Question 57 – As a doctoral student, did you participate in activities sponsored by your institution's center for teaching improvement or the like? Several subjects suggested that another category be added to capture whether or not these types of centers existed at their institution during doctoral training. The researcher decided to add another response category to the available responses titled none available.

As the instrument was somewhat long (60 items), the researcher was particularly interested in assessing how long it took subjects to complete the self administered survey. It took the pilot respondents an average of 8.50 minutes to complete the self administered survey. Assessing this data was important as long surveys tend to have low response rates Baruch (1999). The researcher then conducted an assessment of the data collected in an effort to make certain that subjects were directed to all core questions on the instrument and that appropriate skips were working as designed. Results suggested that the instrument was working as designed. The researcher received several comments from the sample which comports with what the literature suggests about teaching preparation and the need for the kinds of studies that the researcher was undertaking. Below are a few of those responses from subjects.

> Dear Franz,
> Sounds like an interesting project. Does anyone get teaching preparation as part of their doctoral experience? I didn't.
> xxxxxxxx
>
> Franz
> I wish that my adviser and other mentors had been more willing to share their teaching philosophies, techniques, and lessons learned in the same way they shared research techniques and tips. I received no preparation for teaching during my years in doctoral education. The problem you are investigating is an important one. Good luck on your study.
> Xxxxxxxxx

The aforementioned comments by pilot respondents provided that researcher additional support for the need to include the open-ended item at the end of the survey. See appendix F for a sample

of the online survey with modifications based on expert panel review and pilot testing. The following section details the teaching sub-roles as measured by the modified instrument.

Teaching Sub-Roles as Measured by Instrument

The themes derived from the review of literature on the teaching sub-roles are captured in the instrument that was used to collect data for the study. The following items from the data collection instrument are believed to capture the teaching sub-role – advising/mentoring:

- How often did you have discussions with faculty about your teaching philosophy?
- If you discussed your teaching philosophy with faculty, please rate this activity's effectiveness in preparing you for teaching
- How often did faculty share teaching resources (e.g. lecture materials) with you?
- If faculty shared teaching resources with you, please rate this activity's effectiveness in preparing you for teaching:
- How often did you have discussions with faculty about why instructional classroom decisions are made?
- If you had discussions with faculty about why instructional classroom decisions are made, please rate this activity's effectiveness in preparing you for teaching:
- How often did you receive feedback from a faculty member about your teaching skills?
- If you received feedback from a faculty member about your teaching skills, please rate this activity's effectiveness in preparing you for teaching:
- How often were you provided with opportunities to reflect on feedback about your teaching?
- If you were given the opportunity to reflect on feedback about your teaching, please rate this activity's effectiveness in preparing you for teaching:

- How often did you engage in conversations with other students about teaching?
- If you engaged in conversations with other students about teaching, please rate this activity's effectiveness in preparing you for teaching:
- How often were you able to ask faculty members questions about teaching?
- If you asked faculty members questions about teaching, please rate this activity's effectiveness in preparing you for teaching:

The following items from the data collection instrument are believed to support development in the teaching sub-role – course design:

- How many times did you participate in designing a course?
- If you participated in designing a course, please rate this activity's effectiveness in preparing you for teaching:
- How many times did you design a course syllabus?
- If you designed a course syllabus, please rate this activity's effectiveness in preparing you for teaching:
- How often did you prepare course assignments?
- If you prepared course assignments, please rate this activity's effectiveness in preparing you for teaching:

The following items from the data collection instrument are believed to support development in the teaching sub-role – assessment:

- How often did you have conversations with faculty about their approaches to grading?
- If you had conversations with faculty about their approaches to grading; please rate this activity's effectiveness in preparing you for teaching:
- How often did you engage in self assessment with regard to your teaching?

- If you engaged in self assessment with regard to your teaching, please rate this activity's effectiveness in preparing you for teaching:
- How often did you grade exams?
- If you graded exams, please rate this activity's effectiveness in preparing you for teaching:
- How often did you grade or provide feedback on written assignments?
- If you graded or provided feedback on written assignments, please rate this activity's effectiveness in preparing you for teaching:
- How often did you have discussions with faculty about classroom assessments?
- If you had discussions with faculty about classroom assessments, please rate this activity's effectiveness in preparing you for teaching:

The following items from the data collection instrument are believed to support development in the teaching sub-role – Instructional Approach:

- How many times did you independently teach an entire course from beginning to end?
- If you taught a course independently from beginning to end, please rate this activity's effectiveness in preparing you for teaching:
- How many times did you teach a course under the supervision of a full time faculty member?
- If you taught a course under the supervision of a full time faculty member, please rate this activity's effectiveness in preparing you for teaching:
- How many courses in college teaching did you take?
- If you took courses in college teaching, please rate this activity's effectiveness in preparing you for teaching:

- How often did you observe someone teaching (not including classes that you were enrolled in?)
- If you observed someone teaching, please rate this activity's effectiveness in preparing you for teaching:
- How often did you deliver a lecture in the classroom?
- If you delivered a lecture in the classroom, please rate this activity's effectiveness in preparing you for teaching:

The following items from the data collection instrument are believed to support development in the teaching sub-role – teaching to diverse learning styles:

- How often did you have discussions with faculty about individual learning differences?
- If you had discussions with faculty about individual learning differences, please rate this activity's effectiveness in preparing you for teaching:
- How often did you have discussions with faculty about teaching to a diverse student population?
- If you had discussions with faculty about teaching to a diverse student population, please rate the activity's effectiveness in preparing you for teaching:

Justification for Use of Survey Method

For the purpose of the study, the researcher was interested in sampling a large proportion of the junior faculty population in the Southern Regional Education Board member states. McMillan (2004) posits that survey research is an efficient and cost effective mode of collecting information from a population or sample. In addition to its cost effectiveness and its descriptive nature, survey research is also used to investigate the relationships between variables in a study (McMillan, 2004). McMillan goes on to discuss that "surveys are versatile in being able to

address a wide range of problems or questions, especially when the purpose is to describe attitudes, perceptions, and beliefs of the respondents" (p.195). This makes this approach most suitable for the purpose of the study. Fraenkel and Wallen (2009) suggest that survey research allows respondents sufficient time to reflect and provide thoughtful responses to questions being asked. Given that the sample for this study is junior faculty (tenure track assistant professors) who have earned terminal degrees, are within their first faculty appointment, and who have been in position a maximum of three years, this approach allowed respondents the liberty of reflecting on those experiences during doctoral training that were most effective in preparing them for the job of teaching in collegiate settings.

While the use of survey research has grown exponentially over the years as a popular method of collecting data for non-experimental designs, this approach to data collection has its shortcomings. Within the literature on survey research, a common concern is response rate. According to Baruch (1999), response rates for academic studies have been declining in recent years. Griffis, Goldsby and Cooper (2003) believe that mail surveys have been prone to non-response. Recognizing the issue of low response rates associated with survey research, Dillman (2000) developed tactics aimed at addressing the declining rates of responses to survey research. These tactics are to include following up with a post-card to non-responders, following-up with a telephone call, a hard-copy survey with cover letter to non-responders etc. In a study exploring response rate and measurement differences in mixed-mode surveys, Dillman et al. (2009) realized a 12.7% response rate on a web-based instrument in its first administration. In a second phase, the researchers followed up with non-responders by telephone, and realized an overall response rate of 47.7%. In a similar study exploring web and mail survey response rates, Kaplowitz et al. (2004) realized a 25.4% response rate when personalized postcard reminders

were sent to non-responders. Recognizing the inherent issues associated with response rates on survey research, the researcher adopted - as needed - Dillman's (2000) tactics in gaining a favorable response rate.

Due to the nature of the research questions and the researcher's intent to sample a large proportion of the junior faculty population in SREB, a survey design was the most appropriate and logical approach to conducting the study.

Procedures

As discussed elsewhere in this chapter, data for the study was collected from junior faculty in SREB Four-Year one institutions (see Appendix A for a list of institutions). These institutions represent the entire population of public, post-secondary institutions in this category. The study employed a quantitative approach in collecting data through the use of a modified instrument developed by Hall (2007). The survey was electronically mailed to junior faculty in select disciplines in SREB Four-Year one institutions via Qualtrics ™.

The researcher administered the survey in the spring of 2011. Contact information for the population of interest was collected between December 2010 and January 2011 in an effort to ensure that contact information was current which can have some implications for response rate. As data collection began in February of 2011, the researcher believed that this would be sufficient time for institutions to remove faculty from their contact list who were no longer at the institution in addition to adding new hires. The researcher ran the survey for three weeks with reminder e-mails being sent to participants at the end of each week. Data was anonymously collected from respondents through Qualtrics ™.

Data Analysis

The study employed a range of statistical tools in answering the research questions. To determine how various activities clustered conceptually, principal axis factor analysis with oblique rotation was conducted to assess the underlying structure of the effectiveness of teaching sub-roles as measured by the *Preparation for Teaching Survey*. The researcher employed computer software namely, the Statistical Package for the Social Sciences (SPSS) 19.0, for the purposes of statistical analysis. Data analyses for the study began with descriptive statistics being computed on the demographic information collected by means of the *Preparation for Teaching Survey*. This was done in an effort to describe the sample of junior faculty. Descriptive statistics was then computed for all items on the instrument. Independent t-test analysis was used in comparing junior faculty in high and low consensus disciplines in an effort to test whether or not there were any significant differences in overall perception of doctoral level teaching preparedness. Below is an expanded view of the research questions and the corresponding statistical approach for data analysis.

Research Question # 1	What are those activities by disciplinary consensus that junior faculty engaged in during their doctoral studies that prepared them for college teaching?
Data Analysis	Descriptive statistics were computed on all activities derived from the instrument to answer this research question. The researcher was particularly interested in mean and standard deviation of scores by disciplinary consensus.
Research Question # 2	Based on disciplinary consensus, what relationship exists between activities perceived to be effective in preparation for teaching and

	junior faculty perceived level of overall preparedness for college teaching?
Data Analysis	To address this question, Pearson product moment correlation was computed on the frequency of engagement in activities that were rated as somewhat important to important to junior faculty self reported overall preparedness for college teaching for both high and low consensus disciplines. The researcher was particularly interested in examining whether a relationship existed between these items and junior faculty perceptions of overall preparedness for the task of college teaching.
Research Question # 3	Do junior faculty perceptions of the effectiveness of preparation for teaching sub roles differ by disciplinary consensus?
Data Analysis	To address this question, the researcher first assessed the underlying structure of the teaching sub-roles through conducting a factor analysis. Factor scores were produced using the regression method in factor analysis. These scores were then used to examine discipline differences in the effectiveness of teaching sub roles using Independent t- test analysis.
Research Question # 4	Do junior faculty perceptions of overall preparedness for college teaching differ significantly by disciplinary consensus?
Data Analysis	Independent t-test analysis was employed in comparing junior faculty perceived level of overall preparedness for college teaching in high and low consensus disciplines.

The last item on the survey instrument asked subjects to provide any additional information about activities or experiences during their doctoral training that would have better prepared them for college teaching. The researcher utilized a basic interpretive approach in analyzing and making sense of that data.

CHAPTER FOUR

FINDINGS

The purpose of this study was to increase our understanding of junior faculty perceptions of their doctoral level teaching preparation. The study took a disciplinary approach in exploring junior faculty perceptions of the training they received in doctoral programs for teaching in collegiate settings. The researcher decided to pursue a disciplinary approach in this study, as empirical studies have found differences in faculty work across disciplines (Biglan, 1973a; Becher, 1989; Jacobsen, 1981; Lodahl & Gordon, 1972). This approach was instrumental in the researcher's ability to closely scrutinize the data set for variations in perceptions across disciplinary consensus. Specifically, the omnibus question this study seeks to answer is - are there discipline differences in junior faculty perceptions of their doctoral level preparation for college teaching. The modified instrument titled "*The Preparation for Teaching Survey*" assessed the extent to which certain activities believed to support teaching preparation were perceived by subjects to be effective in preparing them for teaching. To assess whether the items on "*The Preparation for Teaching Survey"* formed a reliable scale, Cronbach's alpha was computed. The alpha for the items was .833 which indicated that the items form a scale that has good internal reliability. This chapter summarizes the response rate, the characteristics of the respondent sample and presents the results of data analyses. It concludes with a thematic summary of subjects' qualitative responses to the open ended item from the survey based on disciplinary consensus.

Response Rate

Questionnaires were e-mailed to 1809 junior faculty at SREB Four-Year 1 institutions. A total of 40 e-mail addresses bounced. These addresses were researched, of which 11 were fixed

and resubmitted and 29 removed from the original sample as a result of faculty who were no longer holding positions at the sample of institutions identified in this study (see Appendix A). This action resulted in a relevant sample of 1780 junior faculty. Six hundred and twenty nine (n=629) faculty responded for a response rate of 35.33%. Eighty four subjects were removed from the final analysis because of association with disciplinary fields not meeting the criteria for the study and faculty who did not fit the sample inclusion criteria (see Table 6).

Table 6
Response Rate

Initial Sample -	Non-Deliverable =	Relevant Sample	Survey Respondents	Useable Responses	Response Rate
1809	29	1780	629	545	35.33%

Characteristics of Respondent Sample

Useable responses were received from 545 junior faculty representing 35 post-secondary institutions that are classified as SREB Four-Year 1. Appendix A provides a list of institutions in the sampling frame. Males comprised 54% of the respondents and females 46%. It can reasonably be inferred from the demographic data collected in this study that female representation within public four-year and above institutions has marginally improved. Caucasians represented 81% (n=442) of the sample, which is consistent with their representation when compared to other ethnicities within institutions similar to those surveyed in the study. Asians represented 8% (n=42) of the sample, followed by Hispanics/Latinos 6% (n=33), African Americans/Blacks 4% (n=21), Pacific Islanders .18% (n=1) and American Indians or Alaskan natives .18% (n=1). Other ethnicities represented .92% (n=5) of the sample and comprised individuals who were racially mixed as indicated by their open ended responses to item 5 on the survey.

Faculty from eight disciplines were represented in the study (physics, chemistry, geology and biology – high consensus disciplines, political science, psychology, sociology and economics – low consensus disciplines). Respondents by discipline category were physics (n=41), chemistry (n=48), geology (n=33), and biology (n=101) for a total of (n=223) faculty representing high consensus disciplines (40.9%); political science (n=106), psychology (n=87), sociology (n=69), and economics (n=60) for a total of (n=322) faculty representing low consensus disciplines (59.1%). All respondents (n=545) were in their first tenure track faculty position within higher education. There were 8% (n=44) who primarily taught graduate students, 36% (n=196) who primarily taught undergraduates and 56% (n=305) who were evenly split between graduate and undergraduate teaching. Respondent sample characteristics are summarized in Table 7.

Table 7
Respondent Sample Characteristics

Characteristic	*n*	%
Gender		
Male	295	54.1
Female	250	45.8
Ethnicity		
African American/Black	21	3.9
Asian	42	7.7
Caucasian	442	81.1
Hispanic/Latino	33	6.1
Pacific Islander	1	.18
American Indian or Alaska native	1	.18
Other	5	.92
Broad Disciplinary Classification		
High Consensus Disciplines	223	40.9
Physics	41	7.5
Chemistry	48	8.8
Geology	33	6.1
Biology	101	18.5
Low Consensus Disciplines	322	59.1
Political Science	106	19.4
Psychology	87	16.0
Sociology	69	12.7
Economics	60	11.0

Table 7 Continued

Characteristic	*n*	%
First Teaching Position within Higher Education	545	100
Respondents Target Teaching Population		
Graduate Students	44	8
Undergraduate Students	196	36
Split 50% Graduate and 50% Undergraduate	305	56

Descriptive Statistics for Items Associated with Teaching Role

Research Question 1: What are those activities by disciplinary consensus that junior faculty engaged in during their doctoral studies that prepared them for college teaching?

Descriptive statistics were computed for each of twenty four activities derived from the literature believed to support teaching preparation. One scale asked respondents how frequently they engaged in specified activities during their doctoral training ranging on a scale of 1 (never) to 7 (weekly). The other scale asked respondents how effective engagement in specified activities were in preparing them for college teaching on a scale of 1 (very ineffective) to 7 (very effective). There were several items that asked respondents specifically how many times they engaged in specified activities believed to support teaching preparation. The mean rating for each item along with standard deviation of scores and sample size is reported in Table 7. Of the 24 items derived from the literature that are believed to support teaching preparation, 13 items were rated as somewhat effective to effective in preparing junior faculty for their college teaching role (i.e. items with a mean rating of 5 or greater). They are as follows: (24) asking faculty members questions about teaching (M=5.02), (14) sharing teaching resources (M=5.11), (34) engagement in self assessment with regards to teaching (M=5.19), (38) grading and providing feedback on written assignments (M=5.2), (46) taking a course in college teaching (M=5.32), (48) observing teaching (M=5.34), (58) involvement in institution's center for teaching improvement (M=5.34), (44) teaching under supervision (M=5.49), (30) preparing course assignments (M=5.61), (50)

delivering a lecture in the classroom (M=5.84), (28) designing course syllabus (M=5.87), (26) course design (M=6.01), (42) independently teaching an entire course (M=6.43). See Table 8 for more details.

Table 8
Participant responses, means and standard deviations for each item

Item	*n*	*M*	*SD*
11. How Often You Had Discussions with Faculty About Your Teaching Philosophy	545	2.73	1.72
12. Rating of Effectiveness for Discussions About Teaching Philosophy	382	4.56	1.28
13. How Often Faculty Shared Teaching Resources With You	541	3.17	1.84
14. Rating of Effectiveness for Sharing of Teaching Resources	*414*	*5.11*	*1.31*
15. How Often You Discussed With Faculty Why Instructional Decisions are Made	538	2.91	1.87
16. Rating of Effectiveness for Discussion of Why Instructional Decisions are Made	359	4.82	1.25
17. How Often Did You Receive Feedback from Faculty About Your Teaching Skills	534	2.65	1.57
18. Rating of Effectiveness for Receiving Feedback from faculty About Your Teaching	366	4.76	1.30
19. How Often Were You Provided With Opportunities to Reflect On Feedback About Your Teaching	533	3.02	1.70
20. Rating of Effectiveness for Reflecting on Feedback About Your Teaching	386	4.84	1.18
21. How Often Did You Engage in Conversations with Other Students About Teaching	531	4.63	1.98
22. Rating of Effectiveness for Conversations with Other Students About Teaching	481	4.96	1.28
23. How Often Were You Able To Ask Faculty Members Questions About Teaching	530	3.76	1.82

Table 8 Continued

Item	*n*	*M*	*SD*
24. Rating of Effectiveness for Asking Faculty Members Questions About Teaching	*454*	*5.02*	*1.15*
25. Times You Participated in Designing a Course	530	2.72	2.12
26. Rating of Effectiveness For Course Design	*346*	*6.01*	*1.02*
27. Times You Designed a Course Syllabus	530	3.34	3.04
28. Rating of Effectiveness For Designing Course Syllabus	*363*	*5.87*	*1.04*
29. How Often Did You Prepare Course Assignments	529	4.70	2.26
30. Rating of Effectiveness for Preparing Course Assignments	*451*	*5.61*	*1.17*
31. How Often Did You Have Conversations with Faculty About Grading	528	3.45	1.84
32. Rating of Effectiveness for Conversations with Faculty About Grading	413	4.96	1.17
33. How Often Did You Engage in Self Assessment with Regards to Teaching	524	3.82	2.13
34. Rating of Effectiveness for Engagement in Self Assessment with Regards to Teaching	*405*	*5.19*	*1.16*
35. How Often Did You Grade Exams	523	4.70	1.88
36. Rating of Effectiveness for Grading Exams	465	4.93	1.30
37. How Often Did You Grade or Provide Feedback on Written Assignments?	522	4.68	2.04
38. Rating of Effectiveness for Grading or Providing Feedback On Written Assignments	*450*	*5.20*	*1.16*
39. How Often Did you have Discussions with Faculty about Classroom Assessments	521	2.97	1.87
40. Rating of Effectiveness for Discussions with Faculty about Classroom Assessments	340	4.77	1.14

Table 8 Continued

Item	*n*	*M*	*SD*
41. Times you Independently Taught an Entire Course	517	4.23	5.23
42. Ratings of Effectiveness for Independently Teaching an Entire Course	*314*	*6.43*	*0.84*
43. Times You Taught a Course Under the Supervision of a Full Time Faculty Member	*515*	*1.91*	*1.90*
44. Rating of Effectiveness for Teaching Under Supervision	*166*	*5.49*	*1.31*
46. Rating of Effectiveness for Taking a Course in College Teaching	*148*	*5.32*	*1.60*
47. How Often Did You Observe Teaching (Not including Classes that you were enrolled in)	513	3.09	2.25
48. Rating of Effectiveness for Observing Teaching	*318*	*5.34*	*1.14*
49. How Often Did you Deliver a Lecture in the Classroom	513	4.58	2.32
50. Rating of Effectiveness for Delivering a Lecture in the Classroom	*432*	*5.84*	*1.05*
51. How Often Did you have Discussions with Faculty about Individual Learning Differences	512	2.11	1.61
52. Rating of Effectiveness for Discussions with Faculty About Individual Learning Differences	223	4.70	1.21
53. How Often Did you have Discussions with Faculty about Teaching a Diverse Student Population	509	2.11	1.57
54. Rating of Effectiveness for Discussions with Faculty about Teaching a Diverse Student Population	226	4.65	1.16
56. Rating of Effectiveness for Attending Seminars on College Teaching	191	4.98	1.30

Table 8 Continued

Item	*n*	*M*	*SD*
58. Rating of Effectiveness for Involvement in Institution's center for teaching improvement	*142*	*5.34*	*1.27*
59. Overall Preparedness for College Teaching	508	4.64	1.69

Note: The Teaching Preparation Survey assessed participants' engagement in activities that support Teaching Preparation and the effectiveness of those experiences. As a result, if participants never experienced the activity, they were skipped to the next question, thus resulting in different Ns for each item.

There were several items on the instrument that the researcher wanted to capture specifically to determine if these types of activities were available during the respondents' doctoral training. Table 9-11 provides a summary of these findings. Although the literature suggests that taking courses in college teaching is believed to support teaching preparation, 30% (n=159) indicated that there were no such courses available to them during their doctoral training. Conversely, 29% of the respondent sample indicated that they took one or more courses in college teaching. In reference to the number of times they attended seminars on college teaching, 23% (n=118) of the respondent sample indicated that none were available to them during their doctoral training. Moreover, approximately 40% (n=201) of the respondent sample indicated that these opportunities were available to them, but they did not take advantage of them. See Table 10 for more details.

Since there has been some effort in better preparing doctoral students for their college teaching role via initiatives such as the Preparing Future Faculty and centers for teaching excellence, the researcher wanted to gauge the penetration of these initiatives within research institutions. Respondents were asked if, as doctoral students, they participated in activities sponsored by their institutions center for teaching improvement or the like. Surprisingly, 72% (n=368) of respondents indicated that they did not participate in such programs or that there were none available. This is a stark contrast between the 28% (n=143) of respondents who

participated in such programs and rated them as somewhat effective to effective in preparing them for college teaching.

Table 9
Response to Item 45 "How many courses in college teaching did you take"

Response	Frequency	% of Participants
None Available	159	30.7
Available but did not take	209	40.3
One	118	22.8
More than One	32	6.20

Table 10
Response to Item 55 "How many times did you attend seminars on college teaching"

Response	Frequency	% of Participants
None Available	118	23.1
Available but did not attend	201	39.3
Once	87	17.0
More than Once	105	20.6

Table 11
Response to Item 57 "As a doctoral student, did you participate in activities sponsored by your institution's center for teaching improvement or the like"

Response	Frequency	% of Participants
Yes	143	28.0
No	275	53.8
None Available	93	18.2

To explore potential discipline differences in engagement in activities derived from the literature believed to support teaching preparation, the data set was disaggregated into high and low consensus disciplines. The mean rating for each item along with standard deviation of scores and sample size is reported in Table 12. Of the 24 items derived from the literature believed to support doctoral level teaching preparation, 10 items were rated as somewhat effective to effective in preparing junior faculty in high consensus disciplines for their college teaching role. They are as follows: (26) designing a course (M=5.92), (34) engagement in self

assessment with regard to teaching (5.03), (48) observing teaching (M=5.26), (58) involvement in institution's center for teaching improvement (M=5.32), (44) teaching under supervision (M=5.33), (30) preparing course assignments (M=5.37), (50) delivering a lecture in the classroom (M=5.5), (28) designing course syllabus (M=5.65), (46) taking a course in college teaching (5.93) and (42) independently teaching an entire course (M=6.20).

There was a statistically significant difference in the amount of activities that were rated as somewhat effective to effective in preparing junior faculty in low consensus disciplines for their college teaching role when compared to high consensus disciplines. Of the 24 items derived from the literature believed to support doctoral level teaching preparation, 16 items were rated as somewhat effective to effective in preparing junior faculty in low consensus disciplines for their college teaching role. The same activities that were rated as somewhat effective to effective in preparing junior faculty in high consensus disciplines were similar to those of faculty in low consensus disciplines, with the exception of six additional activities. They are as follows: (36) grading exams (M=5), (32) conversations with faculty about grading (M=5.02), (22) conversations with other students about teaching (M=5.1), (46) taking a course in college teaching (M=5.18), (24) asking faculty members questions about teaching (M=5.19), (14) sharing teaching recourses (M=5.28), (34) engagement in self assessment with regard to teaching (M=5.28), (38) grading or providing feedback on written assignments (M=5.32), (58) involvement in institution's center for teaching improvement (M=5.35), (48) observing teaching (M=5.39), (44) teaching under supervision (M=5.59), (30) preparing course assignments (M=5.74), (28) designing a course syllabus (M=5.94), (50) delivering a lecture in the classroom (M=5.99), (26) course design (M=6.05) and (42) independently teaching an entire course (M=6.51). Interestingly, across disciplinary consensus, junior faculty rated independently

teaching an entire course as the most effective experience in preparing them for college teaching (High consensus disciplines (M=6.20), Low consensus disciplines (M=6.51). Overall, junior faculty in low consensus disciplines reported a higher level of overall preparedness for college teaching (M=5.10) when compared to their counterparts in high consensus disciplines (M=3.94). See Table 12 for more details.

Descriptive Statistics for High and Low Consensus Disciplines

Table 12
High and Low Consensus Disciplines, means and standard deviations for each item

	High Consensus Disciplines			Low Consensus Disciplines		
Item	*n*	*M*	*SD*	*n*	*M*	*SD*
11. How Often You Had Discussions with faculty About Your Teaching Philosophy	224	2.56	1.74	321	2.84	1.70
12. Rating of Effectiveness for Discussions about Teaching Philosophy	135	4.59	1.36	247	4.57	1.24
13. How Often Faculty Shared Teaching Resources With You	220	2.95	1.80	321	3.32	1.85
14. *Rating of Effectiveness for Sharing of Teaching Resources*	154	4.82	1.45	260	*5.28*	1.20
15. How Often You Discussed With Faculty Why Instructional Decisions are Made	218	2.69	1.90	320	3.05	1.86
16. Rating of Effectiveness for Discussion of Why Instructional Decisions are Made	131	4.77	1.28	228	4.86	1.23
17. How Often Did You Receive Feedback from Faculty About Your Teaching Skills	217	2.45	1.55	317	2.79	1.57
18. Rating of Effectiveness for Receiving Feedback from faculty About Your Teaching	132	4.61	1.36	234	4.85	1.26
19. How Often Were You Provided With Opportunities to Reflect On Feedback About Your Teaching	217	2.79	1.72	316	3.18	1.67

Table 12 Continued

Item	*High Consensus Disciplines*			*Low Consensus Disciplines*		
	n	*M*	*SD*	*n*	*M*	*SD*
20. Rating of Effectiveness for Reflecting on Feedback About Your Teaching	141	4.79	1.19	245	4.87	1.17
21. How Often Did You Engage in Conversations with Other Students About Teaching	216	4.20	2.04	314	4.93	1.89
22. *Rating of Effectiveness for Conversations with Other Students About Teaching*	189	4.76	1.34	292	*5.10*	1.25
23. How Often Were You Able To Ask Faculty Members Questions About Teaching	216	3.57	1.89	314	3.88	1.77
24. *Rating of Effectiveness for Asking Faculty Members Questions About Teaching*	176	4.57	1.22	278	*5.19*	1.07
25. Times You Participated in Designing a Course	216	1.99	1.62	314	3.23	2.28
26. Rating of Effectiveness For Course Design	*99*	*5.92*	*.98*	*247*	*6.05*	*1.04*
27. Times You Designed a Course Syllabus	216	2.27	2.31	314	4.07	3.27
28. Rating of Effectiveness For Designing Course Syllabus	*92*	*5.65*	*1.01*	*271*	*5.94*	*1.04*
29. How Often Did You Prepare Course Assignments	216	4.02	2.48	313	5.16	1.98
30. Rating of Effectiveness for Preparing Course Assignments	*158*	*5.37*	*1.27*	*293*	*5.74*	*1.09*
31. How Often Did You Have Conversations with Faculty About Grading	216	3.22	1.85	312	3.61	1.82

Table 12 Continued

Item	*High Consensus Disciplines*			*Low Consensus Disciplines*		
	n	*M*	*SD*	*n*	*M*	*SD*
32. Rating of Effectiveness for Conversations with Faculty About Grading	157	4.87	1.22	256	*5.02*	1.15
33. How Often Did You Engage in Self Assessment with Regards to Teaching	215	3.32	2.09	309	4.17	2.09
34. Rating of Effectiveness for Engagement in Self Assessment with Regards to Teaching	*152*	*5.03*	*1.24*	*253*	*5.28*	*1.20*
35. How Often Did You Grade Exams	215	4.05	2.12	308	5.16	1.54
36. Rating of Effectiveness for Grading Exams	172	4.81	1.35	293	*5.00*	1.26
37. How Often Did You Grade or Provide Feedback on Written Assignments?	215	4.04	2.35	307	5.13	1.66
38. Rating of Effectiveness for Grading or Providing Feedback On Written Assignments	160	4.98	1.23	290	*5.32*	1.20
39. How Often Did you have Discussions with Faculty about Classroom Assessments	215	2.68	1.86	306	3.16	1.82
40. Rating of Effectiveness for Discussions with Faculty about Classroom Assessments	120	4.63	1.26	220	4.85	1.06
41. Times you Independently Taught an Entire Course	212	2.68	3.22	305	5.30	6.03
42. Ratings of Effectiveness for Independently Teaching an Entire Course	*75*	*6.20*	*.99*	*239*	*6.51*	*.77*
43. Times You Taught a Course Under the Supervision of a Full Time Faculty Member	212	1.98	2.20	303	1.87	1.68

Table 12 Continued

Item	*High Consensus Disciplines*			*Low Consensus Disciplines*		
	n	*M*	*SD*	*n*	*M*	*SD*
44. Rating of Effectiveness for Teaching Under Supervision	*69*	*5.33*	*1.26*	*97*	*5.59*	*1.36*
46. Rating of Effectiveness for Taking Courses in College Teaching	*28*	*5.93*	*1.25*	*120*	*5.18*	*1.65*
47. How Often Did You Observe Teaching (Not including Classes that you were enrolled in)	210	2.80	2.12	303	3.29	2.33
48. Rating of Effectiveness for Observing Teaching	*123*	*5.26*	*1.12*	*195*	*5.39*	*1.16*
49. How Often Did you Deliver a Lecture in the Classroom	210	3.91	2.41	303	5.04	2.15
50. Rating of Effectiveness for Delivering a Lecture in the Classroom	*161*	*5.50*	*1.21*	*271*	*5.99*	*.92*
51. How Often Did you have Discussions with Faculty about Individual Learning Differences	209	2.15	1.64	303	2.09	1.58
52. Rating of Effectiveness for Discussions with Faculty About Individual Learning Differences	93	4.86	1.17	130	4.59	1.22
53. How Often Did you have Discussions with Faculty about Teaching a Diverse Student Population	208	1.96	1.55	301	2.21	1.59
54. Rating of Effectiveness for Discussions with Faculty about Teaching a Diverse Student Population	77	4.74	1.23	149	4.60	1.14
56. Rating of Effectiveness for Attending Seminars on College Teaching	69	4.96	1.43	122	4.99	1.22
58. Rating of Effectiveness for Involvement in Institution's center for teaching improvement	*38*	*5.32*	*1.36*	*104*	*5.35*	*1.25*
59. Overall Preparedness for College Teaching	208	3.94	1.77	300	*5.10*	1.46

Item 45 on the survey asked respondents how many courses in college teaching they took as doctoral students. The results show that there was a higher proportion of junior faculty in low consensus disciplines that took one or more courses in college teaching (39.6%) when compared to their counterparts in high consensus disciplines (13.7%). Approximately 52% of the respondent sample from high consensus disciplines indicated that courses in college teaching were available to them during their doctoral training, but they did not take advantage of the opportunity to enroll in such courses compared to 32% from low consensus disciplines. Interestingly, 34% of the respondent sample from high consensus disciplines and 28% from low consensus disciplines indicated that no such courses were available to them during their doctoral training. See Table 13 for more details.

Table 13
High and Low Consensus Disciplines Response to Item 45 "How many courses in college teaching did you take"

Response	High Consensus Disciplines		Low Consensus Disciplines	
	Frequency	% of Participants	Frequency	% of Participants
None Available	73	34.4	86	28.1
Available but did not take	110	51.9	99	32.4
One	18	8.5	100	32.7
More than One	11	5.2	21	6.9

Item 55 on the survey asked respondents how many times during their doctoral training did they attended seminars on college teaching. Results show that a higher proportion of the respondent sample from low consensus disciplines attended one or more seminars on college teaching during their doctoral training (40.6%) when compared to high consensus discipline respondents (33.2%). A similar proportion of the respondent sample from high and low consensus disciplines indicated that such opportunities existed during their doctoral training, but they did not take advantage of the opportunity (40.4% and 38.6% respectively). There was a

higher proportion of the respondent sample from high consensus disciplines indicating that no such opportunities existed during their doctoral training (26.4%) compared to 20.8% of the respondent sample in low consensus disciplines. See Table 14 for more details.

Table 14
High and Low Consensus Disciplines Response to Item 55 "How many times did you attend seminars on college teaching"

Response	High Consensus Disciplines		Low Consensus Disciplines	
	Frequency	% of Participants	Frequency	% of Participants
None Available	55	26.4	63	20.8
Available but did not attend	84	40.4	117	38.6
Once	32	15.4	55	18.2
More than Once	37	17.8	68	22.4

Item 57 on the survey asked respondents if as a doctoral student they participated in activities sponsored by their institution's center for teaching improvement or the like. There was a higher proportion of the respondent sample from high consensus disciplines (27%) indicating that no such centers existed at their institution compared to 12% of the respondent sample from low consensus disciplines. A similar proportion of the respondent sample from high and low consensus disciplines indicated that while such centers existed at their institution, they did not participate (54.3% and 53.5% respectively). There was a stark contrast between respondents in low consensus disciplines who participated in activities sponsored by such centers for teaching improvement (34.7%) when compared to respondents from high consensus disciplines (18.3%). See Table 15 for more details.

Table 15
High and Low Consensus Disciplines Response to Item 57 "As a doctoral student, did you participate in activities sponsored by your institutions center for teaching improvement or the like"

Response	High Consensus Disciplines		Low Consensus Disciplines	
	Frequency	% of Participants	Frequency	% of Participants
Yes	38	18.3	105	34.7
No	113	54.3	162	53.5
None Available	57	27.4	36	11.9

Results of Pearson Product Moment Correlations

Research Question 2: Based on disciplinary consensus, what relationship exists between activities perceived to be effective in preparation for teaching and junior faculty perceived level of overall preparedness for college teaching? To address this question, Pearson product moment correlations were computed on the frequency of engagement in activities that were rated as somewhat effective to effective to junior faculty self reported, overall preparedness for college teaching for both high and low consensus disciplines. Pearson product moment correlations were calculated on these activities primarily because the researcher was particularly interested in exploring the relationships that existed between these activities experienced by junior faculty during their doctoral training and their perceptions of overall preparedness for college teaching. Results of Pearson product moment correlations are presented in Table 16.

All correlations computed between items were significant. Positive correlations among items ranged from ($r(212)=.117$, $p=.011$ to ($r(308)=.548$, $p=<.001$), suggesting a wide range of variability relative to the strength of the correlations. For high consensus disciplines, (three out of ten) of the correlations produced a correlation coefficient above .400 indicating that these correlations were statistically significant (Field, 2009). They are as follows: (item 29) how often did you prepare course assignments ($r(216)=.407$,$p<.001$, $r^2=.165$); (item 33) how often did you

engage in self assessment with regards to your teaching ($r(215)=.408, p<.001, r^2=.166$) and (item 49) how often did you delivered a lecture in the classroom ($r(210)=.414, p<.000, r^2=.171$).

For low consensus disciplines, (6 out of 16) of the correlations produced a correlation coefficient above .400 indicating that these correlations were statistically significant. They are as follows: (item 29) how often did you prepare course assignments ($r(313)=.459, p<.000, r^2=.211$); (item 33) how often did you engage in self assessment with regards to your teaching ($r(309)=.414, p<.001, r^2=.171$); (item 49) how often did you deliver a lecture in the classroom ($r(303)=.488, p<.001, r^2=.238$); (item 21) how often did you engage in conversations with other students about teaching ($r(314)=.404, p<.001, r^2=.163$); (item 35) how often did you grade exams ($r(308)=.548, p<.001, r^2=.300$); (item 37) how often did you grade or provide feedback on written assignments ($r(307)=.454, p<.001, r^2=.206$).

Effect sizes for all correlations computed for both high and low consensus disciplines were small to medium (see Table 16 for details). All correlations computed were positive, suggesting a significant linear relationship between frequency of engagement in activities and junior faculty ratings of perceived overall preparedness for college teaching. These data suggest that for those respondents in the study who reported higher levels of engagement in activities listed in Table 16, overall, they tended to rate themselves as better prepared for college teaching.

Table 16
Results of Pearson product moment correlations for selected items correlated to perceived overall preparation for college teaching

	High Consensus Disciplines				Low Consensus Disciplines			
	Overall Preparation for Teaching				Overall Preparation for Teaching			
Variables	*r*	r^2	*p*	*n*	*r*	r^2	*p*	*n*
25. Times you participated in designing a course	.335	.112	<.001	216	.339	.115	<.001	314
27. Times you designed a course syllabus	.292	.085	<.001	216	.359	.129	<.001	314

Table 16 Continued

Variables	High Consensus Disciplines				Low Consensus Disciplines			
	r	r^2	*p*	*n*	*r*	r^2	*p*	*n*
29.How often did you prepare course assignments	.407	.165	<.001	216	.459	.211	<.000	313
33.How often did you engage in self assessment with regards to your teaching	.408	.166	<.001	215	.414	.171	<.001	*309*
41.Times you independently taught an entire course from beginning to end	.117	.014	.011	212	.262	.069	<.001	*305*
43.Times you taught a course under the supervision of a full time faculty member	.200	.04	.004	212	.125	.016	.013	*303*
45.How many courses in college teaching did you take	.269	.007	<.000	212	.221	.049	<.001	303
47.How often did you observe someone teaching	.297	.088	<.000	210	.245	.06	<.001	303
49.How often did you deliver a lecture in the classroom	.414	.171	<.000	210	.488	.238	<.001	303
57.Participation in institution's center for teaching improvement or the like	.275	.076	<.000	203	.270	.073	<.001	303
13. How often faculty shared teaching resources					.349	.122	<.001	321
21. How often did you engage in conversations with other students about teaching					.404	.163	<.001	314
23. How often did you ask faculty members questions about teaching					.361	.130	<.001	314
31. How often did you have conversations with faculty about their approach to grading					.345	.119	<.001	312
35. How often did you grade exams					.548	.300	<.001	308
37. How often did you grade or provide feedback on written assignments					.454	.206	<.001	307

Effect size r = .1 small, .3 medium, .5 large Fields (2009)

Factor Analysis Results

Research Question 3: Do junior faculty perceptions of the effectiveness of preparation for teaching sub roles differ by disciplinary consensus? To address this question, the researcher first assessed the underlying structure of the teaching sub-roles through conducting a principal axis factor analysis with oblique rotation. All survey items relative to teaching sub-roles were included in the factor analysis, in consideration of potential discipline differences. Factor scores were produced using the regression method in factor analysis. These scores were then used to examine discipline differences in teaching sub roles.

Several assumptions were tested. Patterns of relationship assumptions were met with an *R* – matrix determinant = 0.000171 (>.00001 per Field, 2010), suggesting that multicollinearity is not a issue. Bartlett's measure testing the null hypothesis that the original correlations matrix is an identity matrix was rejected (X^2 = 5499.57, df=276, p=.000). Sampling adequacy was sufficient as indicated by Kaiser-Meyer-Olkin (KMO) statistics of .921 which is superb (>.90) according to Field. The Anti-image correlation matrix reflected diagonal values well over the 0.5 minimum with the majority of values above .90.

Factor analysis results are displayed in Table 17. Four factors were identified for teaching preparation - - advising/mentoring (F1), course design (F2), individual/student assessment (F3) and professional development (F4). Initial eigenvalues were 8.152, 2.259, 1.725 and 1.544, explaining 51% of total variance. The scree plot was ambiguous, suggesting either a three or a four factor solution. The curve was somewhat difficult to interpret because it began to tail off after factor three, but there was another drop after factor four, suggesting two points of inflexion. Because eigenvalues represent the proportion of variation explained by a factor and eigenvalues of one represent a substantial proportion of variation (Field , 2009), Kaiser (1960)

recommends retaining all factors with eigenvalues greater than 1. Because of the exploratory nature of this study, the researcher used Kaiser's recommendation in conjunction with the results of the scree plot to support his rationale for retaining four factors. Table 17 displays the items and factor loadings for the rotated factors, with loadings less than .40 omitted to improve clarity.

Table 17
Summary of Factor Analysis Results for Teaching Preparation

	F1	F2	F3	F4
12. Rating of effectiveness for discussing teaching philosophy with faculty	.656			
14. Rating of effectiveness for faculty sharing teaching resources with you	.717			
16. Rating of effectiveness for discussions with faculty about why instructional classroom decisions are made	.713			
18. Rating of effectiveness for receiving feedback from faculty about teaching skills	.646			
24. Rating of effectiveness for asking faculty members questions about teaching	.657			
26. Rating of effectiveness for participating in designing a course		.745		
28. Rating of effectiveness for designing a course syllabus		.742		
30. Rating of effectiveness for preparing course assignments		.714		
32. Rating of effectiveness for discussion with faculty about approaches to grading	.473			
34. Rating of effectiveness for engagement in self assessment with regards to teaching			.481	
36. Rating of effectiveness for grading exams			.528	
38. Rating of effectiveness for providing feedback on written assignments			.602	
40. Rating of effectiveness for discussions with faculty about classroom assessments			.447	
42. Rating of effectiveness for teaching a course independently		.726		
44. Rating of effectiveness for teaching a course under supervision of faculty				.453
50. Rating of effectiveness for delivering a lecture in the classroom			.495	

Table 17 Continued

	F1	F2	F3	F4
52. Rating of effectiveness for discussion with faculty about individual learning differences			.666	
54. Rating of effectiveness for discussions with faculty about teaching to a diverse student population			.648	
56. Rating of effectiveness for attending seminars on college teaching				.705
58. Rating of effectiveness for participation in center for teaching improvement				.987
Initial Eigenvalues	8.152	2.259	1.725	1.544
% of variance	32.91	7.65	5.12	4.86

Note: Table reflects principal axis factoring pattern matrix; Loadings <.40 are omitted from analysis. Factor 1 – Advising/Mentoring, Factor 2 – Course Design, Factor 3 – Individual/Student Assessment, Factor 4 – Professional Development

As stated previously, factor scores were generated using the regression method in SPSS. To examine potential discipline differences, t-test analysis was then conducted on factor scores. T-test results are presented in Table 18. Of the four factors generated from the factor analysis, the results of t-test revealed significant disciplinary differences in perceptions of the effectiveness of preparation for teaching sub-roles in three of four factors. There was a significant difference in junior faculty perceptions of the effectiveness of Factor 1 which seems to index advising/mentoring ($t(543) = -3.21, p < .05$). The results show that junior faculty in low consensus disciplines perceived advising/mentoring to be more effective in their doctoral level teaching preparation than did their counterparts from high consensus disciplines. Similarly, significant differences between junior faculty in high and low consensus disciplines were found in F2 which seems to index course design ($t(543) = 3.22, p < .05$). Junior faculty in low consensus disciplines perceived course design to be more effective in their doctoral level teaching preparation than did their counterparts from high consensus disciplines. Lastly, significant differences were found between junior faculty in high and low consensus disciplines on their self

rating of the effectiveness of teaching sub-role (factor 3) which seems to index individual/student assessment ($t(543) = -2.99, p < .05$). Junior faculty in low consensus disciplines perceived individual/student assessment to be more effective in their doctoral level teaching preparation than did their colleagues from high consensus disciplines. Effect sizes for the discipline difference demonstrated in F1, F2 and F3 were small (r=.02 for all factors). While the effect sizes were small, it is valuable to understand the extent to which disciplinary consensus makes a difference in junior faculty perceptions of the effectiveness of their preparation in each teaching sub-role. See Table 18 for more details.

Table 18
t-test Analysis of Factor Scores

Factor	*n*	*M*	*SD*	*t*	*df*	*p*
F1 – *Advising/Mentoring*				-3.21	543	.001
High Consensus Disciplines	221	-.1493	.9031			
Low Consensus Disciplines	321	.0997	.8800			
F 2 – *Course Design*				3.22	543	.002
High Consensus Disciplines	221	-.1430	.7305			
Low Consensus Disciplines	321	.0948	.9909			
F 3 – Individual/Student Assessment				-2.99	543	.003
High Consensus Disciplines	221	-.1392	.9077			
Low Consensus Disciplines	321	.0920	.8763			
F 4 – *Professional Development*				.532	543	.595
High Consensus Disciplines	221	.0202	.8480			
Low Consensus Disciplines	321	-.0191	.8510			

t-test Analysis of Perceptions of Overall Teaching Preparedness

Research Question 4: Do junior faculty perceptions of overall preparedness for college teaching differ significantly by disciplinary consensus. Independent t-test analysis was employed in comparing junior faculty perceived level of overall preparedness for college teaching in high and low consensus disciplines. Table 19 shows that the perceptions of overall

teaching preparedness for faculty in high consensus disciplines differed significantly from their counterparts in low consensus disciplines. Inspection of the two group means indicates that junior faculty in low consensus disciplines reported a higher level of doctoral level teaching preparation (M=5.10) when compared to high consensus disciplines (M=3.98). This difference was significant $t(388.74) = -7.54, p < .05$; however, it represented a small-sized effect $r = .13$. Although effect size is an objective and often standardized measure of the magnitude of an observed effect (Field, 2009), Tabachnick and Fidell (2007) suggest that small effect sizes are common and to be expected in social science research. It is valuable, though, to understand the extent to which disciplinary consensus makes a difference in junior faculty overall preparedness for college teaching. While the effect size was small in comparing high and low consensus disciplines, the results comport with the literature on discipline differences as it relates to faculty work within the post-secondary context as supported in the works of Biglan (1973a,b), and Braxton and Hargens (1996) .

Table 19
Comparison of High and Low Consensus Discipline on Overall Preparedness for College Teaching

Variable	*M*	*SD*	*t*	*df*	*p*
Overall Preparedness for College Teaching			-7.54	388.74	.000
High Consensus Disciplines	3.98	1.77			
Low Consensus Disciplines	5.10	1.50			

Themes Derived from Responses to Open Ended Questions

The last item on the instrument asked subjects to respond to an open ended prompt about additional information pertaining to activities or experiences during their doctoral training that would have served to better prepare them for teaching as a faculty member within the post-secondary context. As the study took a disciplinary approach in exploring perceptions of teaching preparation, the researcher disaggregated this data into two groups (high consensus and

low consensus disciplines). This was done in an effort to explore if themes derived from the open ended items would further support variations in disciplinary consensus as it relates to perceptions of teaching preparation.

The researcher employed a basic interpretive qualitative approach in making sense of these data. All responses to the open ended item from the survey were read paying keen attention to experiences/activities that would support teaching preparation. Codes were then assigned based on patterns identified in the data. Cross case data displays were created to evaluate the themes. Peer review, a method used for establishing the credibility of qualitative research studies, was then undertaken to ensure rigor in data analysis (Glesne, 2006; Lincoln & Guba, 1985). During the peer review process, all codes/themes and subjects responses were reviewed for accuracy.

Of the (n=223) faculty members representing high consensus disciplines completing the *Preparation for Teaching Survey,* 31% (n=70) responded to the open ended item from the survey. Similarly, of the (n=322) faculty members representing low consensus disciplines completing the electronic survey, 29% (n=92) responded to the open ended item from the survey.

Eight themes emerged from the data for faculty responses to the open ended prompt in high consensus disciplines. These themes are summarized in Table 20. Results suggest that faculty in high consensus disciplines, while in some cases recognize the importance of teacher training, perceive doctoral level preparation for teaching counterproductive, as teaching is an auxiliary function and not their primary function as faculty members in research institutions. This theme labeled 'Manifestation of the Teaching Problem' is presented in Table 20. Thirty-four percent (n=24) of subjects in high consensus disciplines responding to the open ended prompt shared in this opinion. While a sizeable proportion of faculty in high consensus

disciplines responding to the open ended item from the survey did not perceive doctoral level teaching preparation to be important, other themes suggest that junior faculty in these disciplines desired a more structured approach to teaching preparation involving more courses and seminars on college teaching (24%) or (n=17), more opportunities to teach independently (20%) or (n=14) and mentoring from senior faculty (10%) or (n=7). Other themes which emerged with less frequency were more opportunities to receive supervised teaching (4%) or (n=3), presenting at professional conferences (1%) or (n=1), informal discussions about teaching (1%) or (n=1) and involvement in centers for teaching improvement (4%) or (n=3). Table 20 provides a list of themes, frequency/sample size and supporting quotes.

Table 20

Thematic Summary of High Consensus Disciplinary Faculty Responses to Question 60: Please provide any additional information about activities or experiences during your doctoral training that would have better prepared you for teaching as a faculty member:

Themes	Frequency (%) (n=70)	Supporting Quotes
Mentoring	7 (10%)	*I wish that my adviser and other mentors had been more willing to share their teaching philosophies, techniques, and lessons learned in the same way they shared research techniques and tips. In many cases I learned how I DIDN'T want to teach, rather than what were the tried and true approaches that were successful for others.* *Being a teaching assistant for an outstanding senior faculty member/mentor and for a first-time new faculty member was the best preparation for college teaching in my experience.* *My PhD program and my advisor/mentor in particular did emphasize and educate on public speaking and presentation skills, which are applicable to teaching,*

Table 20 Continued

Themes	Frequency (%) (n=70)	Supporting Quotes
		and also served as a role model in how to divide time between teaching preparation and research as a faculty member at a major research university.
Course/Seminar on College Teaching	17 (24%)	*I think that having courses in teaching for sciences that were separate from courses in teaching for a general audience (most of which are taught by individuals in Education and/or the Humanities) would be very useful.* *Courses: on teaching/learning philosophies (pedagogy); instructional design; evaluation techniques would have been helpful.* *I think that having a more varied offering of seminars and classes on teaching would have helped a lot* *I think that some formal training would be helpful at the doctoral level. Providing courses on college teaching could help to bridge the gap.*
Presenting at Professional Conferences	1 (1%)	*Generally research, presentations at scientific meetings are excellent ways to prepare for teaching.*
Informal Discussions about Teaching	1 (1%)	*Most of what I learned about teaching was from peers in casual discussions and from students telling me about their professors.*

Table 20 Continued

Themes	Frequency (%) (n=70)	Supporting Quotes
Centers for Teaching Improvement	3 (4%)	*The University of Colorado Graduate Teacher Program is outstanding, and the teaching improvements obtained there as a graduate student were as effective (or more effective) than 2 NSF-funded workshops on pedagogy I attended as a faculty member.* *I participated in Preparing Future Faculty for 2 semester. This was very helpful in practicing lecturing, discussing teaching approaches, and preparing a teaching philosophy.*
Teaching Independently	14 (20%)	*Additional opportunity to teach on my own.* *Teaching seems to be the best preparation for teaching.* *More experience in the classroom teaching.* *Delivering more lectures as a "guest" lecturer.* *I would have been more prepared for teaching if I had developed and taught more classes.* *More guest lectures and discussion leads*
Supervised Teaching	3 (4%)	*If I team taught a lecture course with a professor I would have had more experience. Instead I was always a TA.* *Receiving supervised teaching was very helpful in preparing me for teaching. I wished I had more of this type of opportunity during grad school.*

Table 20 Continued

Themes	Frequency (%) (n=70)	Supporting Quotes
Manifestation of the Teaching Problem	24 (34%)	*I wasn't required to teach while in graduate school. However, my lack of teaching does not mean that I would have isolated myself from other students and never had these discussions. It was a strange environment where teaching was the dirty little thing we did to get to do the good stuff - our research. No one ever discussed teaching, we were never made aware of any training sessions, and as a result I suffered horribly when I first began teaching as a faculty member.* *I was enrolled in a research-dominated institution. In fact I had to request specifically to be allowed to be a TA... Anyway, teaching was seen as a necessary evil, and there was never any discussion about how to do it, let alone do it right. The idea was: if you know your research, you can teach it. So all the training was basically, just stand up and do it!* *I had no interaction with faculty about teaching. My teaching experience was 1 semester of leading a lab section, and some teaching I had done before I started graduate school. No seminars, no courses, and only the student evals at the end of that one semester that I taught for feedback.*

Table 20 Continued

Themes	Frequency (%) (n=70)	Supporting Quotes
		My doctoral training was at a research institute, there was no time for teaching preparation *Despite the fact that many PhD students pursue a career in Academia, these programs are designed to help the students to become scientists. It is unreasonable to expect that in addition, the program will also prepare them as teachers...* *I feel that this question is front loaded with the primary assumption that teaching is the primary or most important role of a faculty member. It seems that teaching is an auxiliary function and that research is the primary role of faculty members at research institutions. To expend any additional time on teaching would take away from the research training and so overall would be considered counterproductive to research.* *I should note that I was in a doctoral program that primarily supported students on research assistantships, not TAships. Teaching was not supported as it did not bring money into the department. As I work in a research institution, research is my primary function, it does not matter if I learned or even know how to teach so long as I publish and bring in money to my institution.*

Table 20 Continued

Themes	Frequency (%) (n=70)	Supporting Quotes
		Did not have time to learn about teaching *It is just not viewed as being important. I was after a R1 research job; there was simply no motivation to be a good teacher.* *I got my PhD from an institution that did not provide any courses to prepare you for teaching. (It was not important)* *I received no preparation for teaching. Most scientists view teaching as a necessary requirement for the opportunity to conduct research at a university, so my professors/mentors did not understand someone that was interested in teaching and were not interested in discussing teaching methodology.*

Note: Percentages are rounded to the nearest whole number.

Nine themes emerged from the data for faculty responses to the open ended item from the survey in low consensus disciplines. The themes are summarized in Table 21. Thirty three percent (n=30) of subjects in low consensus disciplines responding to the open ended item from the survey suggest that these disciplines require/offer more courses/seminars on college teaching. This theme is aligned with a more structured approach to teaching preparation. Faculty in these disciplines desired more opportunities to teach independently (16%) or (n=15) and a mentoring approach to teaching preparation (11%) or (n=10). The theme 'manifestation of the teaching problem' also emerged in low consensus disciplines. Twenty two percent or (n=20) of subjects responding, stated that these disciplines offered no teaching preparation and that teaching was

viewed as un-important. Quite similar to high consensus disciplines, some faculty viewed teaching as an auxiliary function. Other themes which emerged with less frequency were more opportunities to learn about and teach to diverse learning styles and populations (undergraduate and graduate students) (5%) or (n=5), leading discussion sections (5%) or (n=5), receiving supervised teaching experience (3%) or (n=3) and more involvement in activities sponsored by centers for teaching improvement (2%) or (n=2). Two percent or (n=2) of subjects in low consensus disciplines stated that their preparation for teaching was self-taught. Table 21 provides a list of themes, frequency/sample size and supporting quotes.

Table 21
Thematic Summary of Low Consensus Disciplinary Faculty Responses to Question 60: Please provide any additional information about activities or experiences during your doctoral training that would have better prepared you for teaching as a faculty member:

Themes	Frequency (%) (n=92)	Supporting Quotes
Teaching to Diverse Learning Styles/Populations	5 (5%)	*I was very prepared for teaching undergraduates, but not prepared as well for teaching graduate students. However, I was able to contact doctoral mentors for advice in teaching graduate courses. It would have been nice to have some experience teaching graduate students while I was in my doctoral program.* *It would have been beneficial to have more experience teaching to different learning styles and caliber of students.* *I wish I had more opportunities to teach to (i) varying ability levels, and (ii) teaching relatively unmotivated students.*

Table 21 Continued

Themes	Frequency (%) (n=92)	Supporting Quotes
Teaching Independently	15 (16%)	*Teaching another course independently.* *If I had more opportunities to teach my own courses, I would have been more prepared.* *As part of my grad program, I never had to teach a course. I independently sought out to teach a course one summer at a different school. Teaching that one summer was very effective in preparing me to teach.* *Teaching independent course* *Just more teaching; though admittedly at the time I didn't want to do it since I was focused on research instead.*
Supervised Teaching	3 (3%)	*I was a teaching assistant for several classes as a grad student which allowed me to learn by observing the professor teaching the course* *My institution had courses on teaching preparation but it was difficult to make time in my schedule to enroll in them. What would have been helpful (similar to the university I work at now) would have been to at least have a faculty member supervise my teaching as well as observe and provide feedback on my skills.*

Table 21 Continued

Themes	Frequency (%) (n=92)	Supporting Quotes
Mentoring	10 (11%)	*A mentoring approach would have been nice. At this stage, classes/workshops seem to have minimal impact when compared with one-to-one relationships.* *It would have been helpful to have a faculty mentor who I could go to for advice during the semester that I was teaching my first course.* *Any mentoring from faculty or co-teaching would have been helpful. I learned through preparing my own courses without supervision or anyone that I could ask questions. More mentoring from faculty to help students learn about effective teaching.* *Closer supervision/mentoring by faculty members in regards to teaching.*
Course/Seminar on College Teaching	30 (33%)	*Require courses in college teaching, course construction, grading, etc....* *Have a course or two on teaching effectiveness.* *More discussion of pedagogy* *More instruction on all dimensions of pedagogy at the University level.* *Seminars in pedagogy* *It would have been helpful to have some real preparation for teaching, maybe courses in teaching.* *Courses in teaching*

Table 21 Continued

Themes	Frequency (%) (n=92)	Supporting Quotes
Leading Discussion Sections	5 (5%)	*Leading discussion sections were the main reason why I felt prepared to teach despite having had little/no formal training in pedagogy.* *Being a TA leading discussion sections (crucial midway step in my opinion), aided the most in preparing me for teaching.*
Centers for Teaching Improvement	2 (2%)	*I had outstanding training through an institutionalized "Future Professoriate" program. They couldn't have done much more.* *I took the Preparing Future Faculty sequence, which was helpful, but the semester focusing on teaching would have been much more effective if the instructor(s) would have been from the social sciences (my area).*
Self-Taught	2 (2%)	*Self-taught. Everyone in my program was.* *I basically taught myself.*
Manifestation of the Teaching Problem	20(22%)	*Research at my institution was emphasized over teaching. I'm not terribly disappointed that this is the case. In my discipline, teaching does not contribute to advancement in the field or at your institution. It is a lip-service requirement. In other words, you can be a great teacher, but if you do not publish, you're fired. Therefore, investment in teaching is not wise for a junior faculty member in my field.*

Table 21 Continued

Themes	Frequency (%) (n=92)	Supporting Quotes
		No one taught independent courses in my program as all students were fully funded for 5 years with only the obligation to TA once for one course. *Teaching wasn't something we did, so there was no training for it and more over we do not get rewarded for it as faculty members.* *In graduate school I was discouraged from teaching. It was not viewed as important and I was advised that you do not get promoted for it.* *I went to a research institution and was on a research fellowship most of my years in graduate school. Teaching was unimportant* *At Research I universities, the emphasis is on research skills and the teaching comes later*

Note: Percentages are rounded to the nearest whole number.

Summary of Findings

This chapter presented the findings from the study which took a disciplinary approach in exploring junior faculty perceptions of their doctoral level teaching preparation. Descriptive statistics were computed and presented for all items on the instrument used for data collection. Next the data was disaggregated into high and low consensus disciplines in an effort to find out what were those activities that were effective in preparing junior faculty while they were doctoral students for their college teaching role. The results of descriptive analyses revealed a differentiated amount of engagement in activities that were rated as somewhat effective to effective in preparing junior faculty for their college teaching role when viewed from a

disciplinary consensus lens. Of the 24 items derived from the literature believed to support doctoral level teaching preparation, ten were rated as somewhat effective to effective in preparing junior faculty in high consensus disciplines for their college teaching role compared to engagement in 16 activities rated as somewhat effective to effective in preparing junior faculty from low consensus disciplines for their college teaching role. The differentiated level of effectiveness junior faculty attributed to engagement in specified activities could be explained by the genuine differences between disciplines which will be discussed in the next chapter.

The descriptive analysis pointed to specific activities that were effective in preparing junior faculty while they were doctoral students for their college teaching role. Interestingly, while respondents in both high and low consensus disciplines rated taking courses in college teaching as effective in preparing them for teaching, the majority of respondents from high consensus disciplines indicated that such opportunities existed for them, but they did not take advantage of them (52%), compared to (32%) from low consensus disciplines. This could be explained by the orientation of high and low consensus disciplines to teaching. Braxton and Hargens (1996) suggest that low-consensus fields are more oriented to teaching which can be explained by the higher proportion of junior faculty from these disciplines who took one or more courses in college teaching.

Similarly, it is widely discussed in the literature that engagement in activities sponsored by institution's centers for teaching improvement or the like is believed to support teaching preparation. The results of this study support that conclusion; however, of the respondent sample only (n=38) from high consensus disciplines and (n=105) from low consensus disciplines participated in activities sponsored by such programs.

Several correlation analyses were conducted based on activities that were rated as somewhat effective to effective in preparing junior faculty for their college teaching role. Here the researcher was primarily interested in examining whether relationships existed between these activities experienced by junior faculty while they were doctoral students and their perceptions of overall preparedness for college teaching. All correlations calculated were positive suggesting some relationship between frequency of engagement in activities that support teaching preparation and junior faculty overall preparedness for college teaching. Positive correlations among items ranged from ($r(212)=.117, p=.011$ to ($r(308)=.548, p=<.001$), suggesting a wide range of variability relative to the strength of the correlations. These results suggest that respondents did find some level of importance from their involvement in these activities. This analysis offers strong support for developing programs at the doctoral level that are geared towards better teaching preparation.

Factor analysis results revealed four factors associated with teaching preparation, which together explained 51% of total variance. Significant discipline differences were found between faculty in high and low consensus disciplines in three of the four factors. While the study found significant discipline differences between high and low consensus disciplines on overall preparedness for college teaching the effect size was small. Descriptive analysis revealed that junior faculty in low consensus disciplines on average reported being somewhat prepared for teaching compared to their counterparts in high consensus disciplines who on average reported being somewhat unprepared for college teaching.

The analysis of the open ended prompt (Please provide any additional information about activities or experiences during your doctoral training that would have better prepared you for teaching as a faculty member) revealed a number of interesting themes. Eight themes emerged

from the data for high consensus disciplines and nine for low consensus disciplines. There were a total of six themes that were common to both high and low consensus disciplines. Given the sample and institution type (SREB Four-Year 1) surveyed in this study, the researcher expected that doctoral level teaching preparation would be somewhat challenging, however what was unanticipated was the theme '*manifestation of the teaching problem*' which points to an anti teaching - pro research culture within research institutions. This theme will be discussed further in the following chapter as the researcher believes that any tactic geared towards better preparing doctoral students for their college teaching role hinges on cultivating a culture within research institutions that is inclusive of the importance of teaching as is research. Chapter 5 presents a discussion of all findings.

CHAPTER FIVE

DISCUSSION OF FINDINGS

Introduction

This study took a disciplinary approach in exploring junior faculty perceptions of the training they received in doctoral programs for teaching in collegiate settings. Junior faculty from SREB Four-Year-1 institutions were solicited via electronic mail to participate in the study. The findings reported in chapter four suggest that there are discipline differences in junior faculty self-reported perceptions of their doctoral level preparation for teaching in the academy. In this chapter, these findings are discussed within the context of the relevant literature. The discussion of the findings will be presented in five sections; (a) discussion of descriptive statistics findings, (b) discussion of correlation analyses findings (c) discussion of factor analyses findings (d) discussion of t-test analyses and (e) discussion of an open-ended item about teaching preparation. The chapter concludes with a discussion of the limitations of the study, implications for practice, and recommendations for future research.

Discussion of Findings in Light of Research Questions and the Literature

Discussion of Descriptive Statistics Findings

Throughout the review of literature on doctoral students' experiences as it relates to their doctoral level teaching preparation, many scholars advanced recommendations to better prepare doctoral students for their college teaching role. Many of these recommendations were incorporated into the preparation for teaching survey, which was the instrument used for data collection. Tables 8 through 15 presented the results of descriptive analysis. Respondents' mean ratings and standard deviation of scores were presented in Table 8 and 12. For engagement in each activity derived from the literature believed to support teaching preparation, there was a

corresponding question asking respondents who had the experience to rate its effectiveness in preparing them for college teaching. Respondents were asked to rate the frequency of their engagement in activities believed to support teaching preparation on a scale of one to seven, with one being "never" and seven "weekly". If respondents did not have the experience, they were skipped to the next question. However if they had the experience, the second part of the question asked them to rate its effectiveness in preparing them for the task of collegiate teaching on a scale of one to seven with one being very "ineffective" and seven "very effective". These results were presented in the aggregate and then disaggregated in an effort to explore potential discipline differences in doctoral level activities/experiences that were effective in preparing junior faculty for their college teaching role.

Aggregate analysis of the data revealed 13 items out of 24 that were rated as somewhat effective to effective in preparing junior faculty for their college teaching role (see Table 8). There is strong support in the literature for engagement in these activities as a means of better preparing doctoral students for their college teaching role.

In exploring potential discipline differences, of the 24 items derived from the literature believed to support doctoral level teaching preparation, 16 items were rated as somewhat effective to effective in preparing junior faculty in low consensus disciplines for their college teaching role compared to 10 items from high consensus disciplines. The same activities that were rated as somewhat effective to effective in preparing junior faculty in high consensus disciplines were similar to those of faculty in low consensus disciplines, with the exception of six additional activities (see Table 22 for descriptive summary).

Table 22

Summary Descriptive Statistics Findings - Comparison of High and Low Consensus Disciplines

High Consensus Disciplines		**Low Consensus Disciplines**	
Item	**M**	**Item**	**M**
26. Rating of effectiveness for Course Design	*5.92*	14. Rating of effectiveness for sharing teaching resources	5.28
28. Rating of effectiveness for designing course syllabus	*5.65*	22. Rating of effectiveness for conversations with other students about teaching	5.10
30. Rating of effectiveness for preparing course assignments	*5.37*	24. Rating of effectiveness for asking faculty members questions about teaching	5.19
34. Rating of effectiveness for engagement in self assessment with regards to teaching	*5.03*	*26. Rating of effectiveness for Course Design*	*6.05*
42. Rating of effectiveness for independently teaching an entire course	*6.20*	*28. Rating of effectiveness for designing course syllabus*	*5.94*
44. Rating of effectiveness for teaching under supervision	*5.33*	*30. Rating of effectiveness for preparing course assignments*	*5.74*
46. Rating of effectiveness for taking courses in college teaching	*5.93*	32. Rating of effectiveness for conversations with faculty about grading	5.02
48. Rating of effectiveness for observing teaching	*5.26*	*34. Rating of effectiveness for engagement in self assessment with regards to teaching*	*5.28*
50. Rating of effectiveness for delivering a lecture in the classroom	*5.50*	36. Rating of effectiveness for grading exams	5.00
58. Rating of effectiveness for involvement in Inst. Center for Teaching Improvement	*5.32*	38. Rating of effectiveness for grading or providing feedback on written assignments	5.32
		42. Rating of effectiveness for independently teaching an entire course	*6.51*
		44. Rating of effectiveness for teaching under supervision	*5.59*
		46. Rating of effectiveness for taking courses in college teaching	*5.18*
		48. Rating of effectiveness for observing teaching	*5.39*
		50. Rating of effectiveness for delivering a lecture in the classroom	*5.99*
		58. Rating of effectiveness for involvement in Inst. Center for Teaching Improvement	*5.35*

Note: Italicized items were similar for both high and low consensus disciplines

Ratings of effectiveness for engagement in activities believed to support teaching preparation in low consensus disciplines ranged from 4.57 (effectiveness of discussions about teaching philosophy) to 6.51 (effectiveness of independently teaching an entire course). These ratings suggest that faculty in low consensus disciplines did not find having discussions with faculty about their teaching philosophy effective in preparing them for college teaching; however, they found that having the experience of teaching a course independently effective in preparing them for college teaching. These findings suggest that experiential teaching is much more effective than other activities believed to support teaching preparation.

Conversely, ratings of effectiveness for engagement in activities believed to support teaching preparation in high consensus disciplines ranged from 4.57 (effectiveness of asking faculty members questions about teaching) to 6.20 (effectiveness of independently teaching an entire course). Interestingly, across disciplinary consensus, junior faculty rated independently teaching an entire course as the most effective experience in preparing them for college teaching. Similar to low consensus disciplines, these findings suggest that experiential teaching is much more effective than other activities believed to support teaching preparation. There is strong support in the literature for teaching a class as a means of better preparing doctoral students for their college teaching role (e.g. Austin, 2002a, 2002b; Hall, 2007; Levin, 2008; Rice et al., 2000). These results in isolation may lead one to believe that if doctoral students have opportunities to teach independently, then they will be better prepared for college teaching. However, results of the study also suggest that across disciplinary consensus, junior faculty found value in taking courses in college teaching and teaching under supervision. It is reasonable to believe that after the foundation has been laid (i.e., learning about pedagogy

through courses and seminars on college teaching), junior faculty perceive teaching independently as a culminating experience of putting theory to practice.

There is strong support both in the literature and this study for taking courses in college teaching and participating in seminars on college teaching as activities that support teaching preparation. Results of the study show that well over 30 % of the respondent sample in high consensus disciplines and 28 % from low consensus disciplines reported that there were no courses in college teaching available to them during their doctoral training. Interestingly, over 50 % of the respondent sample from high consensus disciplines and 32 % from low consensus disciplines reported that courses were available to them during their doctoral training, but they did not enroll. There was 26 % of the respondent sample from high consensus disciplines and 21 % from low consensus disciplines who reported that there were no seminars on college teaching available to them as doctoral students. However, for those institutions and programs that did have such activities available, 40 % of the respondent sample from high consensus disciplines and 39 % from low consensus disciplines did not attend. Based on these results, imbedding courses and seminars on college teaching within the discipline may serve to better prepare doctoral students for their college teaching role. What the quantitative data do not reveal however, is why in instances where these programs were available within institutions and disciplinary fields, such a large proportion of the respondent sample did not participate. Insight into this probing question was realized from respondents' responses to the open ended prompt on the instrument, which will be discussed later in the chapter.

Other items perceived to be effective in preparing the respondent sample for college teaching in high consensus disciplines included: designing a course, engaging in self assessment with regards to teaching, observing teaching, preparing course assignments, delivering lectures in

the classroom and designing course syllabus. Several researchers have advanced these activities as recommendations to better prepare doctoral students for their college teaching role. For example, Meacham (2002) and Wulff et al. (2004) recommend that having the experience in designing a course syllabus and designing a course helps in preparation for teaching. Similarly, Austin (2002b) recommends observing teaching as a way of aiding in teacher preparation. All of the before mentioned activities provide support for a more structured approach to teacher training in high consensus disciplines.

As stated previously, there were 16 items found to be effective in preparing the respondent sample from low consensus disciplines for their college teaching role. The same items rated as effective in high consensus disciplines emerged in low consensus disciplines with the addition of six items (experience grading exams, conversations with faculty about grading, conversations with other students about teaching, asking faculty members questions about teaching, sharing teaching resources, grading or providing feedback on written assignments). A plausible explanation for the differentiated level of importance that junior faculty in high and low consensus disciplines attribute to these items can be explained by the notion that low consensus disciplines place a higher value on mentoring therefore respondents in these disciplines found these activities to be more effective in their doctoral level teaching preparation.

Based on these results, it seems that junior faculty in low consensus disciplines experienced more of a mentoring approach to teacher training. Many of Austin's (2002a; 2002b) recommendations for better preparing doctoral students for college teaching is supported in these findings. Austin emphasized teaching under supervision, receiving feedback about teaching, and reflecting on feedback about teaching as essential components of faculty teaching preparation. It seems that a more collaborative model for doctoral level teaching preparation in low consensus

disciplines might be more effective in preparation for teaching. Essentially, a collaborative model for doctoral level teaching preparation would resemble one in which the student and mentor/mentors work closely on fostering skill development in the teaching roles. These results may also explain why junior faculty in low consensus disciplines reported an overall high rating of doctoral level teaching preparation.

Many of the doctoral level experiences rated as effective in preparing junior faculty for their college teaching role is supported in PFF programs and centers for teaching improvement. It seems reasonable to expect that if a larger proportion of the respondent sample participated in activities sponsored by their institution's center for teaching improvement or the like, then perhaps their self rating of overall preparedness for college teaching would be higher. What the results of the study show; however, is that well over 50 % of the respondent samples in both high and low consensus disciplines while aware that these programs existed at their institutions, did not participate in them. Insights into this phenomenon were assessed in respondents' responses to the open ended prompt, which will be discussed later in this chapter. Following is a discussion of correlation analyses.

Discussion of Pearson Product Moment Correlation Findings

Based on disciplinary consensus, correlation analyses were conducted on the frequency of engagement in activities that were rated as effective in preparing the respondent sample for their college teaching role. Here the researcher was primarily interested in better understanding the relationship between frequency of engagement in activities that were effective in preparation for teaching and junior faculty perceptions of overall doctoral level preparedness for college teaching. All correlations calculated based on disciplinary consensus were statistically significant. Positive correlations among items ranged from ($r(212)=.117, p=.011$ to

($r(308)=.548, p=<.001$). These results indicate that as frequency of engagement in activities that were effective in preparation for teaching increased, junior faculty perceptions of overall preparedness for college teaching increased. These findings are important, as they provide further support for their utilization in better preparing doctoral students for their college teaching role. The following section presents a discussion of the factor analysis findings.

Discussion of Factor Analysis Findings

The factor analysis results indicated four factors associated with teaching preparation – (F1) advising/mentoring, (F2) course design, (F3) individual/student assessment and (F4) professional development (see Table 17). Together these factors explain approximately 51 % of total variance.

Support for engagement in activities captured by each factor as a means of preparing doctoral students for their college teaching role can be found in the literature. For example, Silverman (2003) purports that a part of preparation for teaching involves advising and mentoring by faculty. The author claims that such advising/mentoring relationships may include opportunities where faculty supervise and share resources with students during teaching practica and engaging them in discussions about teaching philosophies and why instructional decisions are made. Silverman is not alone in his recommendations, as Arreola (2000), Bess (2000), Austin (2002a,2002b) among others, have made similar recommendations for better preparing doctoral students for their college teaching role. The second factor which seems to index course design is an important component of preparing doctoral students for their college teaching role. Some examples of activities which support development in this teaching sub-role involves participating in designing a course, designing a course syllabus, and preparing course assignments. Strong support for engagement in these activities as a means of better preparing

doctoral students for their college teaching role can be found in the works of Gaff and Pruitt-Logan (1998) and Speck (2003). The third factor which seems to index individual/student assessment entails involvement in activities such as engaging in self assessment with regards to teaching, grading exams, providing feedback on written assignments, having discussion with faculty about classroom assessments, delivering a lecture in the classroom etc. (see Table 17 for more details). Lastly, factor four which is labeled 'professional development' involves engagement in activities sponsored by one's institution's center for teaching improvement, attending seminars on college teaching and teaching under supervision. It is not surprising that teaching under supervision would load highly on this factor, since it is a common approach employed by centers for teaching excellence and PFF programs to better prepare doctoral students for their college teaching role. The clustering of these items are important in considering a model for better preparing doctoral students for their college teaching role.

To examine the disciplinary difference aspect of factor scores, t-test analysis was conducted. Results revealed statistically significant disciplinary differences in perceptions of the effectiveness of teaching sub-roles in three of four factors. Significant differences were found in junior faculty perceptions of the effectiveness of factor one (advising/mentoring). These results suggest that respondents from low consensus disciplines perceived advising/mentoring to be more effective in their teaching preparation than their counterparts from high consensus disciplines. These results also imply that respondents from low consensus disciplines found engagement in activities summarized by factor one (advising/mentoring) to be more effective in their doctoral level teaching preparation. This makes reasonable sense given the notion that low consensus disciplines are more oriented to teaching. However, based on the thematic summary of respondents' responses to the open ended prompt form the survey, it seems that junior faculty

in high consensus disciplines recognize the importance of mentoring and, in many cases, desired mentoring relationships in better preparing them for college teaching.

Similarly, statistically significant differences were found between junior faculty in high and low consensus disciplines on factor two (course design). Junior faculty in low consensus disciplines perceived factor two (course design) to be more effective in their teaching preparation than did faculty from high consensus disciplines. Again, these results are reasonable to expect given that low consensus disciplines are more oriented to teaching suggesting that a part of their doctoral socialization to the academic profession would incorporate some level of teaching preparation.

Lastly, statistically significant differences were found between junior faculty in high and low consensus disciplines on factor three (individual/student assessment). Junior faculty in low consensus disciplines perceived factor three (individual/student assessment) to be more effective in their teaching preparation than did faculty from high consensus disciplines. Again, these results are reasonable to expect given that low consensus disciplines are more oriented to teaching. Another explanation can be found in the works of Gamson (1966) and Vreeland and Bidwell (1966) who suggest that within the social sciences (low consensus disciplines) there exists a strong commitment and emphasis on the importance of teaching and the role that it serves within academe. The authors believe that scholars from low consensus disciplines are more committed to educating the whole student than their counterparts from high consensus disciplines. Thus, it would seem reasonable to believe based on the works of Gamson and Vereeland and Bidwell that apart of socializing aspiring faculty members to the academic profession would emphasize some level of teaching preparation.

While effect sizes for the discipline differences found in F1, F2 and F3 were small, it is not unusual given the nature of the study. It is valuable though to understand the extent to which disciplinary consensus makes a difference in junior faculty perceptions of the effectiveness of their engagement in activities that support teaching preparation.

Discussion of t-test analysis findings

An independent t-test analysis was employed to compare junior faculty perceived level of overall preparedness for college teaching in high and low consensus disciplines. The results showed that the perceptions of overall teaching preparedness for faculty in high consensus disciplines differed significantly from their counterparts in low consensus disciplines. Junior faculty in low consensus disciplines perceived a higher level of doctoral level teaching preparation (M=5.10) compared to junior faculty from high consensus disciplines (M=3.98).

While the effect size was small, these results comport with the literature on discipline difference. Results of a study conducted by Biglan (1973a) revealed that high consensus disciplines were more oriented to research and less so to teaching when compared to their peers in low consensus disciplines. This could explain the higher rating of overall preparedness for college teaching reported by junior faculty in low consensus disciplines. Another explanation is found in the work of Golde and Dore (2001) who suggest that learning about teaching is most common in low consensus disciplines. Based on this premise, it seems reasonable to believe that doctoral students in low consensus disciplines would report higher levels of teaching preparedness because of their disciplines' orientation to teaching.

Given the many initiatives geared towards better preparing doctoral students for their college teaching role (e.g. PFF programs, Centers for Teaching Improvement etc.), the researcher expected to find higher levels of overall teaching preparedness reported by respondents in this

study. Such programs are spreading rapidly across institutions of higher education; however, based on the results of this study, very few students are taking advantage of the many opportunities these programs provide. Of the respondent sample, only 18.3% of respondents from high consensus disciplines participated in such programs, compared to 35% from low consensus disciplines. More than 50 % of the respondent sample from both high and low consensus disciplines - while aware that such programs were available at their institutions - perhaps did not see the value of participating in activities offered by said programs in better preparing them for college teaching. Support for this conclusion can be found in respondents' answers to the open ended prompt derived from the survey. For example one respondent from a high consensus discipline said:

> "I should note that I was in a doctoral program that primarily supported students on research assistantships, not TAships. Teaching was not supported as it did not bring money into the department. As I work in a research institution, research is my primary function, it does not matter if I learned or even know how to teach so long as I publish and bring in money to my institution".

In a similar response, one respondent from a low consensus discipline said "I went to a research institution and was on a research fellowship most of my years in graduate school. Teaching was unimportant".

The anti teaching pro research sentiment in SREB Four-Year 1 institutions, which is supported in the thematic summary of respondents answers to the open ended prompt on the instrument can have serious implications for the quality of the undergraduate experience. With 36 % of the respondent sample primarily teaching undergraduates and 56 % evenly split between graduate and undergraduate teaching, the level of overall preparedness for college teaching reported in both high and low consensus disciplines is more than alarming within this institutional classification. It also signals that PFF programs and centers for teaching

improvement have not sufficiently and effectively penetrated research institutions, where teaching preparation is concerned. While they are clearly present on university campuses, the synergy needed to support doctoral level teaching preparation is clearly lacking. What needs to happen is the development of a unified relationship between PFF programs/centers for teaching improvement and doctoral programs in hopes of better preparing the next generation of faculty for their college teaching role. The following section provides a discussion of the thematic summary of respondent responses to the open ended prompt from the survey and provides much insight into the anti-teaching-preparation pro-research training that many of the respondent sample experienced during their doctoral training.

Discussion of Open-ended item about Teaching Preparation

The *Preparation for Teaching Survey* had one open-ended item, which asked subjects to provide additional information pertaining to activities or experiences during their doctoral training that would have served to better prepare them for teaching as a faculty member. Eight themes emerged in faculty responses to the open ended item from the survey in high consensus disciplines and 9 themes emerged in faculty responses derived from low consensus disciplines. Six themes were common to both high and low consensus disciplines— mentoring, courses/seminars on college teaching, involvement in centers for teaching improvement, teaching independently, receiving supervised teaching experiences and manifestation of the teaching problem (see Figure 2). Two themes with lower frequencies emerged that were specific to high consensus disciplines— presenting at professional conferences and informal discussions about teaching. There were three themes that were specific to low consensus disciplines which are believed to support teaching preparation— teaching to diverse learning styles, leading discussion sections and self-taught.

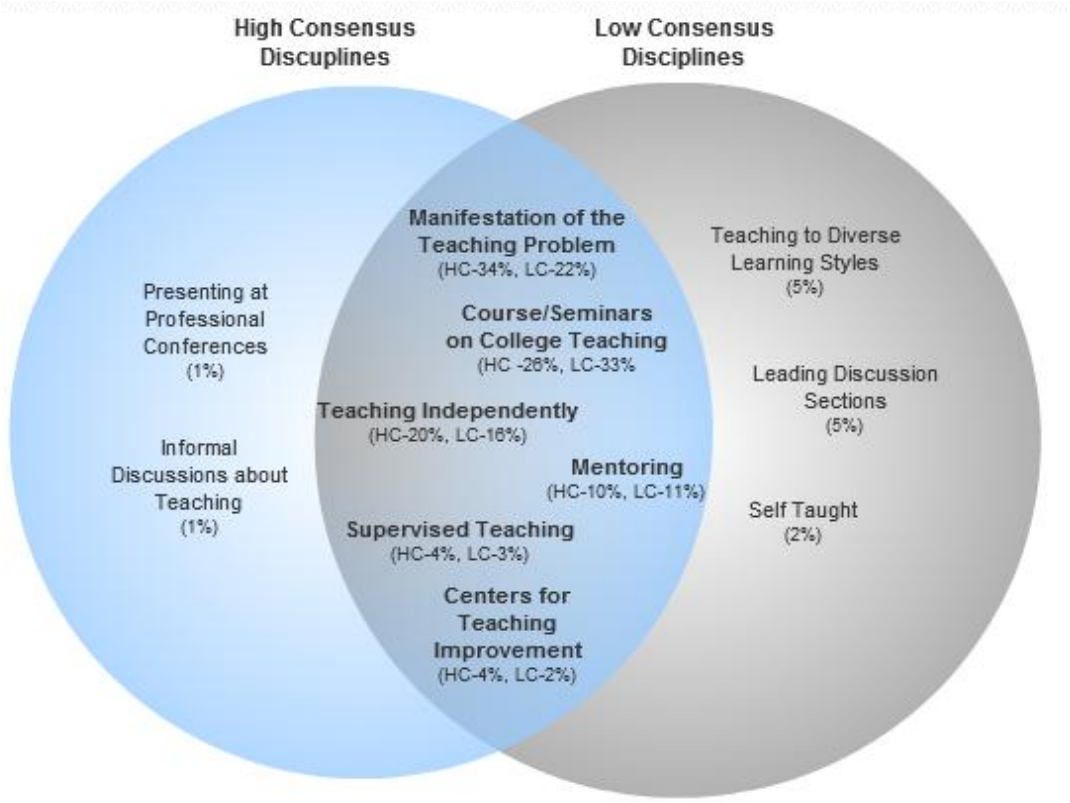

Figure 2. Themes derived from responses to item 60 on *Preparation for Teaching Survey*
Note: HC = High Consensus Disciplines (physics, chemistry, geology, biology), LC = Low Consensus Disciplines (political science, sociology, psychology, economics).

Junior faculty in both high and low consensus disciplines responding to the open ended prompt on the instrument recognized the importance of taking courses/seminars on college teaching. Based on the responses, respondents identified a need for a more comprehensive and structured approach to teaching preparation. This finding comports with the literature as across several empirical works, scholars call for including courses/seminars related to teaching where students can obtain pedagogical knowledge (e.g. Given et al., 1998; Holdaway et al., 1994; Lambert & Tice, 1993; Nyquist, 2001; Meacham, 2002; Waldinger, 1990 etc.). Within both high and low consensus disciplines, respondents called for more seminars/courses on pedagogy.

One respondent from a high consensus discipline said "I think that having courses in teaching for sciences that were separate from courses in teaching for a general audience (most of which are taught by individuals in education and or the humanities) would be very helpful". This would suggest an approach to teaching preparation that is imbedded in the discipline. As socialization to the profession occurs within the confines of the discipline, this makes reasonable sense. Additionally, the content of the sciences could be complex for some to grasp much less teach. Thus, having courses/seminars on teaching that are imbedded in the discipline offers the opportunity for future faculty to learn about various approaches/tactics that may be proven to be successful in teaching for example evolutionary theory or particle physics. As most science lecture courses have a lab component, preparing future faculty for teaching within the discipline affords them the opportunity to learn more about effectively integrating lecture and lab instruction, which could have some implications for the quality of learning taking place in the classroom. This is supported in the works of Wulff and Austin (2004) who believe that doctoral students should be afforded the opportunity to develop teaching competencies appropriate to their disciplinary field.

Responses to the open ended prompt from both high and low consensus disciplines suggested a need for more opportunities to teach independently as a means of better preparing respondents for college teaching. Interestingly, across disciplinary consensus, junior faculty rated independently teaching an entire course as the most effective experience in preparing them for college teaching (high consensus disciplines (M=6.2), low consensus disciplines (M=6.51). Having practical experience in teaching is commonly cited in the literature as an approach to teaching preparation. Silverman (2003) believes that graduate students need experience teaching in environments similar to those they may encounter later in their careers as faculty. This

support for teaching independently and within the discipline is important as it puts theory to practice. It is my belief that this privilege of teaching independently should only be afforded to those who have had formal training in pedagogy, primarily because of what's at stake (i.e. the quality of student learning).

Another theme common to both high and low consensus disciplines that emerged from respondents responses to the open ended prompt was mentoring. This theme provides further support for Silverman (2003) and others (Austin, 2002b; Meacham, 2002; Preparing Future Faculty, 2009) who have all cited mentoring as an important component of teaching preparation. Silverman (2003) believes that mentoring is an integral part of the socialization process of helping students develop into successful university teachers.

Respondents to the open ended prompt from low consensus disciplines recognized the importance of mentoring but seemed to have missed this opportunity during their doctoral training. This is surprising given that low consensus disciplines are more oriented to teaching, so the expectation might be that their socialization to the college teaching role would include a higher level of mentoring experiences. Even more surprising is that there was a higher frequency of respondents teaching independently in low consensus disciplines compared to high consensus disciplines (M=5.30 vs. M=2.68). One respondent from a high consensus discipline stated that "I wish that my advisor and other mentors had been more willing to share their teaching philosophies, techniques, and lessons learned in the same way they shared research techniques and tips…" Based on these responses, respondents clearly valued mentoring in the teaching role as a means of better preparing them for college teaching.

Receiving supervised teaching experience is another theme that emerged in respondent's answers to the open ended prompt on the instrument in both high and low consensus disciplines.

This theme is differentiated form mentoring, as the researcher could not accurately decipher whether or not the faculty supervising the teaching is also a mentor. One respondent stated that "Receiving supervised teaching was very helpful in preparing me for teaching. I wish I had more of this type of opportunity during grad school". Receiving supervised teacher training is a well-documented approach to preparation for teaching (Meacham, 2002; Silverman, 2003). While this theme emerged with less frequency in the data, it is worth mentioning as the researcher feels that it is an important component of doctoral level teaching preparation that does not receive enough attention.

Involvement in centers for teaching improvement or the like also emerged as a theme in both high and low consensus disciplines. Respondents from both high and low consensus disciplines cite their experiences in these programs as effective in preparing them for teaching. One respondent from a high consensus discipline said "The University of Colorado Graduate Teacher Program is outstanding and the teaching improvements obtained there as a graduate student were as effective (or more effective) than 2 NSF-funded workshops on pedagogy I attended as a faculty member". Similarly, one respondent from a low consensus discipline said "I had outstanding training through an institutionalized future professoriate program. They couldn't have done much more".

These initiatives are geared towards providing doctoral students opportunities to learn about and experience faculty responsibilities. This is achieved by providing educational experiences that are informed by the kinds of responsibilities future faculty will experience upon entry into the academic profession. These programs are particularly focused on enhancing teaching preparation. Results of the study show that the majority of respondents in both high and low consensus disciplines (M=54.3% and M=53.5% respectively) did not participate in such

programs. While this theme emerged with less frequency compared to the aforementioned themes, Boice (2001) believes that the programmatic activities that undergird centers for teaching and learning can strengthen faculty abilities in the classroom. This theme involvement in Centers for Teaching Improvement supports Boice's conclusions. One possible explanation for the low frequency associated with this theme is the notion that doctoral programs are rooted in a long-standing tradition of producing researchers (Cambpell et. al., 2005; Golde & Dore, 2001; Neumann, Parry, Becher, 2002; Nyquist & Woodford, 2000) oftentimes at the expense of providing teaching preparation. The theme manifestation of the teaching "problem" perhaps sheds light on why the majority of the respondent sample in this study did not participate in activities sponsored by their institution's center for teaching improvement or the like.

Anti-Teaching Culture as a Manifestation of the Problem

While it was reasonable to expect socialization to teaching being a challenge for junior faculty given the nature of institutions in this study, the theme 'manifestation of the teaching problem' was a key finding given the increasing initiatives devoted to improving faculty teaching. This finding also sheds light on a culture in research institutions pertaining to the importance of teaching. This theme provides further support for the lack of doctoral level teaching preparation discussed in the review of literature and supported in the works of Austin, (2002); Golde and Dore, (2001); Jarvis, (1991); Silverman, (2003); Wulff and Austin, (2004). One respondent from a high consensus discipline stated that:

> I feel that this question is front loaded with the primary assumption that teaching is the primary or most important role of a faculty member. It seems that teaching is an auxiliary function and that research is the primary role of faculty members at research institutions. To expend any additional time on teaching would take away from the research training and so overall would be considered counterproductive to research.

In a similar response, a respondent from a low consensus discipline stated that:

> Research at my institution was emphasized over teaching. I'm not terribly disappointed that this is the case. In my discipline, teaching does not contribute to advancement in the field or at your institution. It is a lip-service requirement. In other words, you can be a great teacher, but if you do not publish, you're fired. Therefore, investment in teaching is not wise for a junior faculty member in my field.

The theme 'manifestation of the teaching problem' points to a critical issue in research institutions. As anticipatory socialization to the academic profession is most proximal during doctoral training (Tierney & Bensimon, 1996), it could be inferred that doctoral programs are failing to adequately socialize doctoral students to their teaching role. This conclusion is supported in the works of Austin (2002b), Fagen and Wells (2002), Katz (2001) among others who report that doctoral students do not receive sufficient training in many aspects of teaching. More importantly, it could also be inferred from these results that there is an anti teaching culture embedded in research institutions. To view teaching at best, as an auxiliary function is to trivialize the true purpose of higher education (i.e. to prepare students for participatory democracy (Dewey, 1944)). It is arguable that if students did not grace the doors of higher education, then higher education would cease to exist. Thus, one of the primary roles of higher education is the dissemination of knowledge through teaching.

This theme 'manifestation of the teaching problem' also points to the fragmented perceptions of teaching being completely independent of research in doctoral research institutions. In support of Boyer's (1990) notion that research keeps the flame of teaching alive, I view the relationship between teaching and research as one that is symbiotic. Research has the potential to inform teaching, thus impacting the quality of student learning. Braxton (1996), makes mention of the contrasting perspectives relative to the relationship between teaching and research. Similar to the researcher's perspective, the author provides evidence suggesting that teaching and research may share a complementary relationship. This complementary

relationship resembles one in which the roles of both teaching and research are similar. Because a major goal of research institutions is the advancement and furthering of knowledge, it becomes clear how this can be realized through both teaching and research, which may ultimately impact student learning. Braxton suggests that "teaching and research may also be positively related because these roles are mutually reinforcing" (p. 7). An example drawn from the works of Braxton clarifies this perspective "excitement generated by engagement in research may be communicated to students during the course of instruction. Likewise, stimulating teaching could generate student questions that might suggest topics for research" (p. 7). Based on the results of this study, research institutions, need to develop a culture for the importance of both teaching and research. While this goal may be elusive, it requires a re-engineering of the faculty rewards system in research institutions to resemble one in which faculty are rewarded for the broad range of roles they perform. In support of this goal, one respondent in the sample stated that:

> "Nothing short of a fundamental shift in the culture and priorities of the modern research university is going to resolve the problem of under-preparation. My mentors actively discouraged the seeking of teaching experiences and/or training. This would take time away from my development into a marketable researcher--and useful research assistant. I would in fact have had a difficult time finding a job if I hadn't followed this advice. After my job talk at the institution where I currently am employed, the head of the search committee said, "We are supposed to ask you about your teaching at this point, but, frankly, I do not care." Incidentally, that faculty member was head of undergraduate studies in our department. Coming from a public liberal arts school, I did not understand what the modern research university is all about. I thus had my guard down and allowed myself to follow the anti-teaching/pro-researcher incentives that were placed before me. If I had to do it all over again, I would have sought a doctoral program that was committed to developing professors who take their teaching responsibilities seriously. I think it is the most important part of our job and it is why I sought a doctoral degree. That said, I do also believe that I would have had a difficult time finding employment if I had gone through such a program. After all, departments like the one I went through are the rule, rather than the exception, and the same values that taint their graduate curriculum also inform their hiring decisions".

Discipline Difference

As stated previously, there were three themes specific to low consensus disciplines that emerged from respondent answers to the open ended item on the survey. They are as follows—leading discussion sections, teaching to diverse learning styles and self taught. Relative to the theme 'teaching to diverse learning styles', it is evident based on the data, that respondents desired opportunities to teach to different learning styles, ability levels and student populations (graduate and undergraduate). One respondent said "It would have been beneficial to have more experience teaching to different learning styles and caliber of students". With college campuses becoming more and more diverse, the challenge to address the needs associated with diverse learning styles within the classroom requires training and experience. Such training could be garnered from courses or seminars on pedagogy backed up by experience in the classroom.

One theme specific to low consensus disciplines that emerged with less frequency was 'self taught'. One respondent said "Self-taught. Everyone in my program was". Another respondent said "I basically taught myself". While this theme emerged with less frequency, it is important as it provides further support for the notion that graduate education is rooted in a tradition of developing research competencies (Campbell et al., 2005; Becher, 2002; Nyquist & Woodford, 2000; Silverman, 2003) oftentimes at the expense of teaching preparation.

Several respondents to the open ended item from the survey in low consensus disciplines cited leading discussion sections as an experience that was effective in preparing them for teaching in the academy. This comports with Austin's (2002a) and Golde's (2004) recommendations for doctoral programs to offer opportunities for doctoral students to engage in activities that support development in a range of teaching skills.

Conversely, two themes emerged that were specific to high consensus disciplines. They are as follows -- presenting at professional conferences and informal discussions about teaching. While these themes emerged with less frequency in the data, they are worth mentioning as they confirm recommendations offered by Austin (2002a) and other scholars who suggest that doctoral programs should afford doctoral students the opportunity to engage in a wide range of activities that support teaching preparation.

Together these themes, derived from respondent answers to the open ended prompt, help in providing further support for the quantitative findings in this study. Essentially, these findings have helped to reinforce why in cases where opportunities existed for the respondent sample to take advantage of teaching preparation programs (i.e. centers for teaching improvement etc.) the majority of them declined. Results generated by the open-ended prompt also confirm other empirical works which suggest that doctoral programs are rooted in a tradition of developing research competences within the students they serve often times at the expense of more holistic preparation for faculty careers.

Limitations of Study

Limitations of the study are addressed in this section. The first limitation of the study is related to the sample selected for analysis. Subjects were not randomly selected, which limits the generalizability of the study beyond SREB Four Year-1 institutions. A second limitation of the study lies in its retrospective nature. It is unknown whether junior faculty perception of their doctoral level teaching preparation is an accurate representation of actual preparation for teaching. Because the study is delimited to SREB Four-Year 1 institutions and recognizing that this group of institutions is more oriented to research, it is reasonable to expect that socialization

to the academic profession is more likely to emphasize research training thus making teaching preparation a challenge.

The purposive inclusion of faculty from a limited number of disciplines— political science, sociology, psychology, economics, physics, chemistry, biology and geology also limits the generalizibility of findings to the full range of high and low consensus disciplines within the post-secondary context. These results must be interpreted with caution as the disciplines represented in this study were not inclusive of all disciplines. For these reasons, the study's findings should not be generalized beyond SREB Four-Year 1 institutions and disciplines outside the purview of this study. In addition, the study was exploratory in nature, given that it is the first known study to take a disciplinary approach in investigating and indentifying factors that are perceived to be effective in teaching preparation. The exploratory factor analyses conducted in this study is a first attempt in understanding how items on the preparation for teaching survey cluster. Additional studies employing the instrument should focus on conducting a confirmatory factor analyses in efforts to further refine the instrument. Another limitation of the study lies in the correlation analyses. These results do not tell whether or not the relationships discovered in the correlation analyses are causal; they only reveal that the variables are related in a systematic way. Finally, while not unusual in the social sciences and particularly in education, the small effect sizes associated with the discipline difference analysis must be taken into consideration in applying the findings of this exploratory study (Field, 2010).

Implications for Practice

The purpose of this study was to increase our understanding of junior faculty perceptions of their doctoral level teaching preparation through a disciplinary lens. This study was an important contribution to our understanding of teaching preparation as it employed a disciplinary

lens in both quantitative and qualitative analyses. The study's contribution to the literature on teaching preparation and discipline differences has been the identification of experiences that were effective in preparing junior faculty for their college teaching role. These experiences included – course design, designing course syllabus, preparing course assignments, engaging in self assessment with regards to teaching, independently teaching an entire course, teaching under supervision, taking courses on college teaching, observing teaching, delivering a lecture in the classroom, involvement in programs sponsored by institution's center for teaching improvement, sharing teaching resources, having conversations with other students about teaching, asking faculty members questions about teaching, engaging in conversations with faculty about grading, grading exams, and grading and providing feedback on written assignments. Identifying these experiences is a first step in conducting more in-depth empirical works designed to inform our understanding of the changes needed to facilitate teaching preparation in doctoral programs.

To enhance the preparation of doctoral students for their college teaching role, the pre-arrival stage of their enculturation (i.e. graduate education) must reflect preparation for the range of roles (i.e. teaching, research and service) that new faculty are expected to perform when they enter the academy. While Austin and Wulff (2004), among other higher education scholars, contend that improving the preparation of future faculty has become a significant issue in academia, it is unclear from the results of this study and review of literature whether any substantive gains have been realized in addressing the problem.

Based on this study's findings regarding a possible anti-teaching culture in research institutions, it seems reasonable to believe that any substantive gains in better preparing doctoral students for their college teaching role hinges on fostering a culture within SREB Four-Year 1 institutions that support teaching preparation. It is also reasonable to believe based on the results

of the study, that any gains in fostering a culture for teaching preparation is unlikely to occur without re-engineering the faculty reward system. Based on this premise, doctoral programs can then begin to implement the findings of this study in better preparing doctoral students for their college teaching role. Results of the subjective analysis of respondents' responses to the open ended item from the survey, suggest that preparation for teaching should occur within the confines of the discipline as supported by the conceptual framework developed for this study.

Recommendations for Future Research

Academic policies designed decades ago cannot be expected to achieve the same level of success today. While it is clear that research training is and will continue to be the basis of doctoral programs, doctoral institutions' heavy emphasis on research training has resulted in graduates who are less than well prepared for the array of responsibilities, including college teaching, that they will be called upon to perform as future faculty.

Future research could focus on duplicating the current study at other institutional types (e.g. teaching institutions). This type of study would add yet another layer to our understanding of the teaching preparation problem. Future research could also focus on expanding the pool of disciplines and faculty rank in further exploring if perceptions may differ based on faculty rank. Other studies could also employ Biglan's (1973) classification of academic fields into hard-pure, hard-applied, soft-pure, soft applied, in further exploring discipline differences in doctoral level teaching preparation.

As socialization to the academic profession occurs within the confines of the discipline, similar studies employing Biglan's (1973) taxonomy could serve to provide discipline specific recommendations for better preparing doctoral students for their college teaching role. Additionally, other studies could focus on establishing a link between perceptions of teaching

preparedness and student learning perhaps in classrooms where they have taught. Such correlation studies could provide strong evidence and support for better preparing doctoral students for their college teaching role.

Qualitative studies geared towards examining the teaching preparation problem could also aid in broadening our understanding from the perspectives of senior faculty and graduate administrators. By attacking the teaching preparation problem from all fronts, it is conceivable that stakeholders advocating for better teaching preparation could be in a position to lead a cultural shift in doctoral education. Such a shift would be more inclusive of preparation that includes the full range of roles future faculty will perform upon entry into the academic profession.

Conclusions

The results of this empirical investigation certainly provides a starting point for addressing the problem of teaching preparation in doctoral programs. The study approached teaching preparation from a disciplinary lens exploring activities that are believed to be effective in doctoral level teaching preparation in both high and low consensus disciplines. Several key conclusions can be drawn from the results of this empirical investigation.

(1) The culture of research institutions would appear to de-emphasize teaching to the detriment of preparing future college faculty for their teaching role.

While results of the study provides important information to help in better preparing doctoral students for their college teaching role, it is obvious from the findings that teaching at research institutions seems to be perceived by new faculty as an ancillary function that university faculty are contractually obligated to perform in an effort to engage in the types of activities that support tenure (i.e. research). One respondent in the study stated it well when he said “Nothing

short of a fundamental shift in the culture and priorities of the modern research university is going to resolve the problem of under-preparation…"

(2) Despite the proliferation of PFF programs and other initiatives geared towards better teaching preparation, doctoral level teaching preparation remains a major concern especially for students in high consensus disciplines.

The results of this study are congruent to other empirical works that explore doctoral students' teaching preparation. Across a string of studies, higher education scholars conclude that the research component of doctoral education rooted in tradition is often emphasized at the expense of broader and more holistic training and skill development for the academic profession (Campbell et al. 2005; Fagen & Wells, 2002; Golde & Dore, 2001; Nerad, Aanerud & Cerny, 2004; Wulff et al. 2004). Specifically, these authors all cite lack of teaching preparation as a core problem. The results of this study suggest, that teaching preparation is still a major concern especially for junior faculty in high consensus disciplines. The respondent sample from low consensus disciplines reported being more prepared for college teaching when compared to their counterparts from high consensus disciplines which could be explained by low consensus disciplines' orientation to teaching. It is clear based on these findings that much work in the realm of teaching preparation needs to be undertaken at the doctoral level in an effort to better prepare doctoral students for their college teaching role.

The results of the study also revealed that for the small proportion of the respondent sample that participated in their institution's center for teaching excellence or the like, across disciplines the majority of participants rated this experience as being effective in preparing them for college teaching. It is still unclear whether the spread of centers for teaching excellence or the like across college campuses is a knee-jerk reaction by higher education to satiate concerns

for teaching preparation advocates or if it is indeed based on the notion that while aware of the teaching preparation problem, they are making constructive efforts to better prepare both existing and future faculty for their college teaching role. Given the small proportion of junior faculty (26% or n=144) from the respondent sample who participated in their institution's center for teaching excellence or the like, the analysis of the open ended item from the survey points to a culture within research institutions where teaching obviously is not important.

(3) Research institutions have forgotten the core of their purpose

These findings also suggest that research institutions have obviously forgotten the core of their purpose - that is the dissemination of knowledge. It is conceivable that if students were to shy away from these institutions, then the research which is so revered and rewarded would be difficult to perform in an environment that is fueled by student enrollment. What is needed is the cultivation of a culture within research institutions that recognizes the importance of teaching and teaching preparation. Given the faculty reward systems in these institutions, research is the primary yard stick by which most faculty are judged. Thus, supporting a culture that is all inclusive of the varying roles that faculty perform to also include the importance of the teaching role is perceptually out of bound. It is time we ask the question how do the priorities of the professoriate relate to the missions of American higher education? In beginning to re-conceptualize and re-engineer the culture of research institutions, the faculty reward system must reflect the importance of teaching and teaching preparation.

There is no doubt that teaching at its best, shapes both research and practice (Boyer, 1990). What is needed within research institutions is a realization that teaching and research are not two separate entities, but two roles that are intimately connected and shared by a symbiotic relationship (Braxton, 1996). Boyer (1990) claims that teaching keeps the scholarship of

research alive, but the same argument could be made about research. This conceptualization of teaching and research sharing a symbiotic relationship coupled with a re-engineering of the faculty reward system, could have important implications for faculty work, doctoral students preparation for their college teaching role, and the quality of learning taking place in the classroom. What is urgently needed in research institutions in support of Boyer's work, "is a more inclusive view of what it means to be a scholar – a recognition that knowledge is acquired through research, through synthesis, through practice and through teaching" (p.24).

(4) There is a definite need for attention to teaching preparation in doctoral programs across disciplinary consensus.

This study's findings also point to a definite need for attention to teaching preparation in doctoral programs across disciplines. The socialization literature makes the argument that doctoral students as part of their induction into the academic profession would be well served if they are socialized to and develop an understanding for the broad array of roles that faculty members perform (Austin & McDaniels, 2006). As the anticipatory socialization process is most optimal during doctoral training, one of the fundamental developmental milestone for doctoral students is to begin to develop an identity as a future member of the profession (McDaniels, 2010). McDaniels argues that optimally students will be given progressively more demanding teaching experiences that will help in socializing them to their college teaching role. The argument could be made that if faculty in research institutions do not buy into the importance of teaching and teaching preparation, then their students' anticipatory socialization to their college teaching role will more than likely resemble that of their own, contributing to and perpetuating a culture that does not recognize the importance of teaching.

While it is clear that I am calling for a re-engineering of the faculty reward system to be more inclusive of the importance of teaching, and the cultivation of a culture in higher education that supports teaching preparation and excellence, pedagogical training is needed to help doctoral students develop the knowledge and skills to carry out their teaching responsibilities effectively. There is no doubt that teaching in higher education requires a combination of content knowledge and pedagogy. An understanding of teaching and learning, and more specifically the different ways in which students learn and the usefulness of different teaching strategies that support learning in the discipline, is important in preparing stewards of the profession. Teaching according to McDaniels (2010) requires careful planning, knowledge of one's audience and the ability to effectively engage different learning styles; a realization of the importance of establishing learning goals and knowledge of assessment in gauging outcomes; and a willingness to be innovative. Such an understanding could be garnered from imbedding courses on college teaching in the curriculum. Within both high and low consensus disciplines, junior faculty rated taking courses in college teaching and attending seminars on college teaching while they were doctoral students as experiences that were effective in preparing them for teaching.

I believe that teaching is a complex endeavor that requires the teacher to engineer a learning environment that fosters intellectual exchange, understanding and the promotion of skill development. Despite one's view on the role of teaching and research, teaching is a necessity for the transmittal of knowledge. Research has shown that doctoral students cite a love for teaching as one of the primary reason for their decision to pursue faculty careers (Golde & Dore, 2001). While this may be true, their utopic aspirations where research institutions are concerned are quickly overshadowed by the demand to publish or perish. One respondent stated that:

> "Research at my institution was emphasized over teaching. I'm not terribly disappointed that this is the case. In my discipline, teaching does not contribute to advancement in the field or at your institution. It is a lip-service requirement. In other words, you can be a great teacher, but if

> you do not publish, you're fired. Therefore, investment in teaching is not wise for junior faculty….."

While the results of this study has certainly broadened our understanding of teaching preparation from a disciplinary lens, university faculty and administrators within research institutions have a responsibility to their students (i.e. to deliver a quality education). If we are to successfully fulfill that mission, then it will require both faculty and administrators to think differently about the role of teaching in research institutions.

REFERENCES

Adams, K. A. (2002). What colleges and universities want in new faculty. Washington, DC: Association of American Colleges and Universities.

The Almanac of Higher Education. (2009). The Chronicle of Higher Education LVI.

Anderson, M. S., & Louis-Seashore, K. (1991). The changing locus of control over faculty research: From self-regulation to dispersed influence. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. VII, pp. 57-101). New York, NY: Agathon.

Antony, J. S., & Taylor, E. (2001). Graduate student socialization and its implications for the recruitment of African American education faculty. In W. G. Tierney (Ed.), *Faculty work in schools of education: Rethinking roles and rewards for the twenty-first century* (pp. 189-209). Albany, NY: State University of New York Press.

Arreola, R. A. (2000). Higher education meta-profession. *The Department Chair, 11*(2), 4-5.

Austin, A. E. (2002a). Creating a bridge to the future: Preparing new faculty to face changing expectations in a shifting context. *The Review of Higher Education, 26*, 119-144.

Austin, A. E. (2002b). Preparing the next generation of faculty: Graduate school as socialization to the academic career. *Journal of Higher Education, 73*(1), 94-122.

Austin, A. E., & McDaniels, M. (2006). Preparing the professoriate of the future: Graduate student socialization for faculty roles. In J. C. Smart (Ed.), *Higher Education Handbook of theory and research* (Vol. XXI, pp. 397-486). New York, NY: Agathon Press.

Bain, K. (2004). *What the best college teachers do*. Cambridge, MA: Harvard University Press.

Barr, R. B., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education *Change, 27*, 12-25.

Baruch, Y. (1999). Response rate in academic studies: A comparative analysis. *Human Relations, 42*(4), 421-438.

Becher, T. (1989). Academic tribes and territories: Intellectual enquiry and the culture of disciplines: Milton Keynes, SRHE/Open University Press.

Becher, T., Henkel, M., & Kogan, M. (1994). *Graduate education in Britain*. London: Jessica Kingsley.

Benassi, V. A., & Fernald, P. S. (1993). Preparing tomorrow's psychologists for careers in academe. *Teaching of Psychology, 20*(3), 149-155.

Bess, J. L. (1978). Anticipatory socialization of graduate students. *Research in Higher Education 8*, 289-317.

Bess, J. L., & Associates. (2000). *Teaching alone, teaching together*. San Francisco, CA: Jossey-Bass.

Beyer, J. M., & Lodahl, T. M. (1976). A comparative study of patters of influence in united states and English universities. *Administrative Science Quarterly, 21*, 104-129.

Bieber, J. P., & Worley, L. K. (2006). Conceptualizing the academic life: Graduate students' perspectives. *Journal of Higher Education 77*(1009-1034).

Biglan, A. (1973a). Relationships between subject matter characteristics and the structure and output of university departments. *Journal of Applied Psychology, 57*(3), 204-213.

Biglan, A. (1973b). The characteristics of subject matter in different academic areas. *Journal of Applied Psychology, 57*(3), 195-203.

Boice, R. (1992). *The new faculty member*. San Francisco, CA: Jossey-Bass.

Boice, R. (2001). *Advice for new faculty members*. Needham Heights, MA: Allyn & Bacon.

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Menlo Park, CA: Carnegie Foundation for the Advancement of Teaching.

Boyle, P., & Boice, B. (1998). Best practices for enculturation: Collegiality, mentoring and structure. *New Directions for Higher Education, 101*, 87-94.

Bragg, A. K. (1976). The socialization process in higher education Washington, DC: The American Association of Higher Education

Braxton, J. M. (1996). Contrasting perspectives on the relationship between teaching and research In *New Directions for Institutional Research* (pp. 5-14): Jossey-Bass

Braxton, J. M., & Del Favero, M. D. (2000). The researcher: Generating knowledge for team teaching. In J. L. Bess (Ed.), *Teaching alone teaching together: Transforming the structure of teams for teaching* (pp. 62-84). San Francisco, CA: Jossey-Bass.

Braxton, J. M., & Hargens, L. L. (1996). Variation among academic disciplines: Analytical frameworks and research. *Higher Education: Handbook of Theory and Research, 11*, 1-46.

Campbell, S. P., Fuller, A. K., & Patrick, D. A. G. (2005). Looking beyond research in doctoral education. *Frontiers in Ecology and the Environment, 3*(3), 153-160.

Clark, B. (1987). The academic life: small worlds, different worlds. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching

Clark, S. M., & Corcoran, M. (1986). Perspectives on the professional socialization of women faculty: A case of accumulative disadvantage. *Journal of Higher Education, 57*(1), 20-43.

Cooper-Thomas, H. D., & Anderson, N. (2005). Organizational socialization: A field study into socialization success and rate. *International Journal of Selection and Assessment 13*(2), 116-128.

Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed methods approaches* (2 ed.). Thousand Oaks, CA: Sage Publications, Inc.

Del Favero, M. (2001). *The influence of academic discipline on administrative behaviors of academic deans.* Vanderbilt University, Nashville, TN.

DeNeef, A. L. (1993). Right here right now. *Liberal Education, 79*(2), 20-26.

DeNeff, L. (2002). The preparing future faculty program: What difference does it make. Washington, DC: Association of American Colleges and Universities.

Dewey, J. (1944). *Democracy and education: An introduction to the philosophy of education* New York, NY: The free press.

Diamond, R. M. (2000). *The disciplines speak II: More statements on rewarding the scholarly, professional, and creative work of faculty*. Washington, DC: American Association for Higher Education

Dillman, D. (2000). *Mail and internet surveys: the tailored design method* (2 ed.). New York, NY: John Wiley Co.

Dillman, D. A., Phelps, G., Tortora, R., Swift, K., Kohrell, J., & Berck, J. (2009). Response rate and measurement differences in mixed-mode surveys using mail, telephone, interactive voice response (IVR) and the internet. *Social Science Research 38*, 1-18.

Dunn, D., Rouse, L., & Seff, M. A. (1994). New faculty socialization in the academic workplace. In J. C. Smart (Ed.), *Higher education: Theory and research* (Vol. 10, pp. 374-416). New York, NY: Agathon.

Eddy, P. L., & Gaston-Gayles, J. L. (2008). New faculty on the block: Issues of stress and support. *Journal of Human Behavior in the Social Environment 17*(1/2), 89-106.

Entwistle, N. (2000). Approaches to studying and levels of understanding: The influence of teaching and assessment. In J. C. Smart (Ed.), *Higher Education: Handbook of Theory and Research*. New York, NY: Agathon Press.

Evans, N. J., Forney, D. S., & Guido-DiBrito, F. (1998). *Student development in college: Theory, research and practice*. San Francisco, CA: Jossey-Bass.

Fagen, A. P., & Wells, K. M. S. (2002). The 2000 national doctoral program survey: An on-line study of students' voices. In D. H. Wulff, A. E. Austin & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty*. San Francisco, CA: Jossey-Bass.

Field, A. (2009). *Discovering statistics using SPSS* (Third ed.). Thousand Oaks, CA: Sage Publications inc.

Fink, D. L. (1982). First year on the faculty: a study of 100 beginning college teachers. University of Oklahoma: Office of Instructional Services.

Fink, L. D. (1992). Orientation programs for new faculty. *New Directions for Teaching and Learning*(50), 39-49.

Finnegan, D. E., & Gamson, Z. F. (1996). Disciplinary adoptions to research culture in comprehensive institutions. *The Review of Higher Education, 19*(2), 144-177.

Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education*. New York, NY: McGraw-Hill.

Gaff, J. G., & Pruitt-Logan, A. S. (1998). Preparing college faculty. *New Directions for Higher Education, 101*.

Gamson, Z. (1966). Utilitarian and normative orientations toward education *Sociology of Education 39*, 46-73.

Given, B. K., Tyler, E. P., Hall, N., & Wood, M. (1998). Tactual resource at the college level: Toys for adult learning. Fairfax, VA: George Mason Graduate School of Education.

Glesne, C. (2006). *Becoming qualitative researchers: An introduction*. San Francisco, CA: Pearson Education, Inc.

Golde, C. M. (2004). The responsibility of doctoral programs for the career preparation of future faculty. *Association of American Colleges & Universities*

Golde, C. M. (2005). Preparing stewards of the discipline. In C. M. Golde & G. E. Walker (Eds.), *Envisioning the future of doctoral education*. Standford, CA: Jossey-Bass.

Golde, C. M., & Dore, T. M. (2001). At cross purposes: What the experiences of today's doctoral students reveal about doctoral education.: A survey initiated by the PEW charitable trust.

Golde, C. M., & Dore, T. M. (2004). The survey of doctoral education and career preparation: The importance of disciplinary contexts. In D. H. Wulff, A. E. Austin & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty*. San Francisco, CA: Jossey-Bass.

Grasha, A. F. (1996). *Teaching with style*. Pittsburg, PA: Alliance Publishers.

Griffis, S. E., Goldsby, T. J., & Cooper, M. (2003). Web-base and mail surveys: a comparison of response, data and cost. *Journal of Business Logistics, 24*(2).

Hall, S. (2007). *Counselor Educators' Perceptions of their Doctoral Level Teaching Preparation (Unpublished doctoral dissertation)* University of New Orleans, New Orleans, LA.

Hall, S., & Hulse, D. (2010). Perceptions of doctoral level teaching preparation in counselor education. *The Review of Higher Education, 1*(2), 2-15.

Hargens, L. L., & Kelly-Wilson, L. (1994). Determinants of disciplinary discontent. *Social Forces, 72*(4), 1177-1195.

Holdaway, E. A., Deblois, C., & Winchester, I. S. (1994). Practices and opinions reported by coordinators of graduate programs. *Interchange, 25*(65-86).

Huck, S. W. (2004). *Reading statistics and research* (4 ed.). Boston, MA: Pearson Education Inc.

Hutchings, P., & Clarke, S. E. (2004). The scholarship of teaching and learning: Contributing to reform in graduate education. In D. H. Wulff, A. E. Austin & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty* San Francisco, CA: Jossey-Bass.

Institute, H. E. R. (1999). The American college teacher: National norms for the 1998-99 HERI faculty survey. Los Angeles, CA: University of California, Los Angeles.

Jarvis, D. K. (1991). *Junior faculty development: A handbook*. New York, NY: Modern Language Association of America.

Johnson, J. B. (2001). Faculty socialization: Lessons learned from urban Black colleges. *Urban Education 36*(5), 630-647.

Jones, A. (2008). Preparing new faculty members for their teaching role. *New Directions for Higher Education, 143*, 93-100.

Kaplowitz, M. D., Hadlock, T. D., & Levine, R. (2004). A comparison of web and mail survey response rates. *Public Opinion Quarterly, 68*(1), 94-101.

Katz, P. M. (2001). CGE's e-mail survey focuses on challenges in graduate training: American historical association.

Kolb, D. A. (1981). Learning styles and disciplinary differences. In A. W. C. Associates (Ed.), *The modern American college: Responding to the new realities of diverse students and a changing society* (pp. 232-255). San Francisco, CA: Jossey-Bass.

Kuhn, T. (1970). The structure of Scientific Revolutions. Chicago, IL: University of Chicago Press.

Lambert, L. M., & Tice, S. L. (1993). Preparing graduate students to teach: A guide to programs that improve undergraduate education and develop tomorrow's faculty Washington, DC: American Association for Higher Education

LaPidus, J. (1997). Doctoral education: Preparing for the future. from www.cgsnet.org/pdf/doctoraledpreparing.pdf

Levin, E. (2008). Career preparation for doctoral students: The university of Kansas history department. *New Directions for Teaching and Learning*(113).

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage.

Lodahl, J. B., & Gordon, G. (1972). The structure of scientific fields and the functioning of university graduate departments. *American Sociological Review, 37*, 55-72.

Lowman, J. (1995). *Mastering the techniques of teaching* (2 ed.). San Francisco, CA: Jossey-Bass.

Lucas, C. J., & Murry, J. W. (2002). *New faculty: A practical guide for academic beginners*. New York, NY: Palgrave.

Maanen, J. V., & Schein, E. H. (1979). Towards a theory of organizational socialization. *Research in Organizational Behavior, 1*, 209-264.

Main, E. C. (1994). Teaching assistant training and teaching opportunities (TATTO) program. Atlanta, GA: Emory University Graduate School of Arts and Sciences.

McCoy, D. L. (2006). *Entering the academy: exploring the socialization experiences of African American male faculty (Unpublished doctoral dissertation).* Louisiana State University Baton Rouge, LA.

McDaniels, M. (2010). Doctoral student socialization for teaching roles. In S. K. Gardner & P. Mendoza (Eds.), *On becoming a scholar: Socialization and development in doctoral education*. Sterling, VA: Stylus Publishing.

McKeachie, W. J. (1969). *Teaching tips: A guidebook for the beginning college teacher* (6th ed.). Lexington, MA: D.C. Heath and Company.

McKeachie, W. J. (1999). *McKeachie's teaching tips: strategies, research, and theory for college and university teachers* (10th ed.). Boston, MA: Houghton Mifflin Company.

McMillan, J. H. (2004). *Educational research: fundamentals for the consumer* (4 ed.). Boston, MA: Pearson Education, Inc.

Meacham, J. (2002). Our doctoral programs are failing our undergraduate students. *Liberal Education, 88*(3), 22-28.

Meizlish, D., & Kaplan, M. (2008). Valuing and evaluating teaching in academic hiring: A multi-disciplinary, cross-institutional study. *Journal of Higher Education 79*(5), 489-512.

Menges, R. J. (1999). *Faculty in new jobs: A guide to settling in, becoming established, and building institutional support*. San Francisco, CA: Jossey Bass

Nerad, M. (2002). The PhD in the U.S.: criticisms, facts, and remedies. *Higher Education Policy, 17*, 183–199.

Nerad, M., Aanerud, R., & Cerny, J. (2004). "So you want to become a professor!": Lessons from the phds-ten years later study. In D. H. Wulff, A. E. Austin & Associates (Eds.),

Paths to the professoriate: Strategies for enriching the preparation of future faculty. San Francisco, CA: Jossey-Bass.

Neuman, R. (2001). Disciplinary difference and university teaching. *Studies in Higher Education, 26*(2), 135-146 doi: 101080/03075070120052071.

Nilson, L. B. (2003). *Teaching at its best: A research-based resource for college instructors* (2 ed.). San Francisco, CA: Jossey-Bass.

Nyquist, J. (2001). Re-envisioning the Ph.d.: Update from Jody Nyquist, principal investigator. from http://grad.washington.edu/envision/greetings.html

Nyquist, J., Abbott, R., & Wulff, D. (1989). The challenge of TA training in the 1990's. In J. D. Nyquist, R. D. Abbott & D. H. Wulff (Eds.), *Teacher assistant training in the 1990's* (Vol. 39, pp. 7-14). San Francisco, CA: Jossey Bass.

Nyquist, J. D., Austin, A., Sprague, J., & Wulff, D. (2001). The development of graduate students as prospective teaching scholars, a four year longitudinal study. Seattle, WA: University of Washington, Center for Instructional Development and Research

Nyquist, J. D., Manning, L., Wulff, D. H., Austin, A. E., Sprague, J., Fraser, P. K., et al. (1999). On the road to becoming a professor: The graduate student experience. *Change: The Magazine of Higher Learning, 31*, 18-27.

Nyquist, J. D., & Woodford, B. J. (2000). Re-envisioning the Ph.D.: What concerns do we have? , from http://www.grad.washington.edu/envision

Nyquist, J. D., & Wulff, D. H. (2001). Recommendations from national studies on graduate education. from http://www.grad.wahington.edu/envision/project_resource/national_recommend.html.

Prentice-Dunn, S., & Rickard, H. C. (1994). A follow-up note on graduate training in the teaching of introductory psychology. *Teaching in Psychology, 21*, 111-112.

The preparing future faculty program. Retrieved January 22, 2009, from http://www.preparing-faculty.org/

Primrose, P. L., Leonard, R., & Singer, K. E. (1995). The training of postgraduates. *Engineering Science and Education Journal, 5*(6), 245-248.

Pruitt-Logan, A. S., & Gaff, J. G. (2002). Preparing future faculty: Changing the culture of doctoral education. In D. H. Wulff, A. E. Austin & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty*. San Francisco, CA: Jossey-Bass.

Rice, E. R. (2006). Enhancing the quality of teaching and learning: The U.S. experience. *New Directions for Higher Education, 133*, 13-22.

Rice, R. E., Sorcinelli, M. D., & Austin, A. E. (2000). Heeding new voices: academic careers for a new generation - New Inquiry # 7. Washington, DC: American Association for Higher Education.

Schuster, J. H., & Finkelstein, M. J. (2006). *The restructuring of academic work and careers: The American faculty* Baltimore, MA: The Johns Hopkins University Press.

Seidel, L. F., & Montgomery, B. (1996 June). *Formal academic programs in college teaching: A model for preparing future faculty*. Paper presented at the What Works II: Post Secondary Education in the 21st Century conference, National Center on Postsecondary Teaching, Learning, and Assessment, State College, PA.

Serafin, A. G. (1991 March). *Faculty Satisfaction Questionnaire: Development, Validity, and Reliability*. Paper presented at the Research Convocation of the College of Education of Western Michigan University, Kalamazoo, MI.

Silverman, S. (2003). The role of teaching in the preparation of future faculty. *Quest, 55*, 72-81.

Smith, R. (1995). Reflecting critically on our efforts to improve teaching and learning. In E. Neal (Ed.), *To improve the academy*. Stillwater, OK: New Forums Press.

Singer, S. R. (2002). Learning and teaching centers: Hubs of educational reform. *New Directions for Higher Education*(119), 59-64.

Smart, J. C., & Elton, C. F. (1982). Validation of the biglan model. *Research in Higher Education, 17*(3), 213-229.

Smeby, J. (1996). Disciplinary differences in university teaching. *Studies in Higher Education, 21*(1), 69-78.

Sorcinelli, M. D., & Austin, A. E. (1992). *Developing new and junior faculty*. San Francisco, CA: Jossey-Bass.

Southern Regional Education Board (SREB). Retrieved September 1, 2009, from http://www.sreb.org/

Southern Regional Education Board: Criteria and Definitions. (2010). Retrieved February, 26, 2010, from http://www.sreb.org/page/1135/criteria_and_definitions.html

Speck, B. W. (2003). The role of doctoral programs in preparing faculty for multiple roles in the academy. *New Directions for Higher Education*(124), 41-55.

A Test of Leadership Charting the Future of U.S. Higher Education: A Report of the Commission Appointed by Secretary of Education Margaret Spellings. (2006).): U.S. Department of Education.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (Fifth ed.): Allyn & Dacon.

Terpstra, D., & Honoree, A. (2009). The effects of different teaching, research, and service emphases on individual and organizational outcomes in higher education institutions. *Journal of Education for Business, 84*(3), 169-176.

Tierney, W. G., & Bensimon, E. M. (1996). *Promotion and tenure: community and socialization in academe*. New York, NY: State University of New York Press.

Tierney, W. G., & Rhoads, R. A. (1993). *Enhancing promotion, tenure and beyond: Faculty socialization as a cultural process*. Washington, D. C.: ASHE-ERIC Higher Education Report 6.

Tierney, W. G., & Rhoads, R. A. (1994). Faculty socialization as a cultural process: A mirror of institutional commitment (ASHE-ERIC Higher Education Report No. 93-6). Washington , DC: The George Washington University, School of Education and Human Development.

Utecht, R. L., & Tullous, R. (2009). Are we preparing doctoral students in the art of teaching. *Research in Higher Education Journal, 4*.

Valentine, D. P., Edwards, S., Gohagan, D., Huff, M., Pereira, A., & Wilson, P. (1998). Preparing social work doctoral students for teaching: Report of a survey. *Journal of Social Work Education 34*, 273-282.

Vanderbilt University Center for Teaching. (2011). Retrieved June 1, 2011, from http://cft.vanderbilt.edu/about/overview/

Van-Maanen, J. (1978). People processing: Strategies of organizational socialization. *Organizational Dynamics, 3*(19-36).

Van-Mannen, J., & Schein, E. H. (1979). Towards a theory of organizational socialization. *Research in Organizational Behavior, 1*, 209-264.

Vreeland, R. S., & Bidwell, C. E. (1966). Classifying university departments: An approach to the analysis of their effects upon undergraduates' values and attitudes. *Sociology of Education, 38*, 237-254.

Waldinger, R. (1990). Training Ph.D. students to teach in college. *ADFL Bulletin, 22*(1), 20-23.

Wertheimer, L. K. (2001, January 22). Few students ready to teach, survey finds: The Dallas Morning News.

Whitley, R. (1984a). The intellectual and social organization of the sciences. Oxford, NY: Oxford University Press Inc.

Whitley, R. (1984b). *The intellectual and social organizations of the sciences*. Oxford: Clarendon Press.

Wilkins, L. (1997). Teaching about teaching: Preparing doctoral students for the first job and beyond. Chicago, IL: Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication.

Williams, L. A. (2005). *From TA to faculty member: The socialization of doctoral completers (Unpublished doctoral dissertation).* University of New Orleans, New Orleans, LA.

Wulff, D. H., & Austin, A. E. (2004). Future directions: Strategies to enhance paths to the professoriate. In D. H. Wulff & A. E. Austin (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty*. San Francisco, CA: Jossey-Bass.

Wulff, D. H., Austin, A. E., Nyquist, J. D., & Sprague, J. (2004). The development of graduate students as teaching scholars: A four-year longitudinal study. In D. H. Wulff, A. E.

Austin & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty*. San Francisco, CA: Jossey-Bass.

Ylijoki, O. H. (2000). Disciplinary cultures and the moral order of studying-a case study of four Finnish university department. *Journal of Higher Education 39*, 339-362 doi:310.1080/03075070600680539.

APPENDICES

APPENDIX A

SREB FOUR-YEAR 1 INSTITUTIONS

State	Institution
Alabama	Auburn University University of Alabama University of Alabama at Birmingham
Arkansas	University of Arkansas, Fayetteville
Delaware	University of Delaware
Florida	Florida State University University of Central Florida University of Florida University of South Florida
Georgia	Georgia State University University of Georgia
Kentucky	University of Kentucky University of Louisville
Louisiana	Louisiana State University
Maryland	University of Maryland, College Park
Mississippi	Mississippi State University University of Southern Mississippi
North Carolina	North Carolina State University University of North Carolina at Chapel Hill
Oklahoma	Oklahoma State University (Main Campus) University of Oklahoma (Norman Campus)
South Carolina	Clemson University University of South Carolina-Columbia
Tennessee	University of Tennessee, Knoxville
Texas	Texas A& M University Texas Tech University University of Houston

Appendix A Continued

State		Institution	
		University of North Texas	
		University of Texas at Arlington	
		University of Texas at Austin	
		University of Texas at Dallas	
Virginia		George Mason University	
		University of Virginia	
		Virginia Tech	
West Virginia		West Virginia University	
Total # of States:	**16**	**Total # of Institution:**	**35**

APPENDIX B

SURVEY COVER LETTER

Date

Greetings Scholars:

My name is Franz Reneau, and I am a doctoral candidate at the University of New Orleans in the Department of Educational Leadership, Counseling and Foundations. I am currently conducting my dissertation research on *junior faculty perceptions of their doctoral level teaching preparation* under the direction of Dr. Marietta Del Favero. You are part of a carefully selected sample of junior faculty from doctoral granting institutions chosen to participate in this study. Your responses/experiences will help in better understanding doctoral level teaching preparation and could inform the training of future faculty. Because teaching is an integral role that faculty members perform, understanding preparation for teaching is important in preparing doctoral students for the professoriate.

To ensure your anonymity, survey responses will be reported only in aggregate, so there will be no association with your name, e-mail address, department, or institution. Your participation in this study is voluntary and should take approximately 10-15 minutes. Refusal to participate will involve no penalty as you may discontinue participation at any time. Your consent to participate is automatically assumed with your submission of the completed survey.

If you have any questions concerning the research study, please feel free to contact me, Franz Reneau at fhreneau@uno.edu. You may also contact Dr. Marietta Del Favero, chair of my dissertation committee, at mdelfave@uno.edu. I appreciate your willingness to support this research endeavor.

Thank you in advance for your participation.

Please click this link to access the survey:
http://neworleans.qualtrics.com/SE/?SID=SV_bqGnFam8oGEoRLu

Sincerely,
Franz H. Reneau
Ph.D. Candidate
University of New Orleans
College of Education & Human Development
Department of Educational Leadership, Higher Education Concentration
2000 Lakeshore Drive, New Orleans, LA 70148

APPENDIX C

REMINDER E-MAIL TO PARTICIPANTS

Date

Dear Dr. (_____)

Recently you received a request to complete an electronic questionnaire for a study exploring junior faculty perceptions of their doctoral level teaching preparation. As one of a carefully selected sample of junior faculty, your response is integral in understanding teaching preparation at the doctoral level. If you have completed and returned the survey, I would like to take this opportunity to thank you for your participation. If for some reason, you have been unable to complete the survey, this electronic mail serves as a kind reminder for you to complete the questionnaire at your earliest convenience.

Please click this link to access the survey:
http://neworleans.qualtrics.com/SE/?SID=SV_bqGnFam8oGEoRLu

Thanks again,
Franz H. Reneau
Ph.D. Candidate
University of New Orleans
College of Education & Human Development
Department of Educational Leadership, Higher Education Concentration
2000 Lakeshore Drive, New Orleans, LA 70148

APPENDIX D

Hello Franz,

Certainly, you may use my instrument in your study. Of course I am very interested in your topic and would love to read your dissertation! You can find a journal article re: my study and instrument at: http://www.naraces.org/JCPS%20January%202010.pdf .
Let me know if I can be of assistance to you in any way. Best of luck!

Stephanie

Stephanie F. Hall, Ph.D., NCC, LPC
Assistant Professor, Department of Psychological Counseling
Monmouth University
(office) 732.263.5731
(fax) 732.923.4661
Secretary, Association for Multicultural Counseling and Development

APPENDIX E

Modified Survey Instrument

Teaching Preparation Survey

Part I - Demographic Information

(Note: Includes modified demographic section and items added to Hall's instrument)

1. Are you employed full-time in a tenure track position?
   ___ Yes
   ___ No
   (If you answered no, you need not continue. This survey is intended for tenure-track faculty members only.)

2. What is your faculty rank?
   ___ Professor
   ___ Associate Professor
   ___ Assistant Professor
   ___ Other
   If other, please specify:_____

3. What is your tenure status?
   ___ Tenured
   ___ Tenure-track
   ___ Non tenure-track

4. What is your gender?
   ___ Male
   ___ Female
   ___ Other

5. What is your race/ethnicity:
   ___ African American/Black ___ Asian ____ Pacific Islander
   ___ Caucasian ___ Hispanic/Latino
   ___ American Indian or Alaska Native
   ___Other
   *(If other, please specify)*_____

6. In what year did you earn your highest degree? _____

7. Please indicate the year in which your current faculty appointment began.
   ___ 2008-2009
   ___ 2009-2010
   ____2010-2011
   ___ Other

*(If other, please specify)*_____

8. Is this your first faculty position within higher education?
   ___ Yes
   ___ No

9. What is your broad disciplinary area?

___ Physics	___ Political Science
___ Chemistry	___ Psychology
___ Geology	___ Sociology
___ Biology	___ Economics

10. Do you primarily teach graduate or undergraduate students?
    Graduate students _____
    Undergraduate students _____

Part II

Note: The following items will be added to Hall's instrument

1. As a doctoral student, did you participate in your institution's Center for Teaching Excellence or the like?
   Never 1 2 3 4 5 6 7 Very Frequently

2. If you participated in your institution's Center for Teaching Excellence or the like, please rate the events effectiveness in preparing you for teaching:
   Not at all effective 1 2 3 4 5 6 7 Very Effective

3. How often did you have discussions with faculty about classroom assessments?
   Never 1 2 3 4 5 6 7 Very Frequently

4. If you had discussions with faculty about classroom assessments, please rate the events effectiveness in preparing you for teaching:
   Not at all effective 1 2 3 4 5 6 7 Very Effective

5. How often did you have discussions with faculty about teaching to a diverse student population?
   Never 1 2 3 4 5 6 7 Very Frequently

6. If you had discussions with faculty about teaching to a diverse student population, please rate the events effectiveness in preparing you for teaching:
   Not at all effective 1 2 3 4 5 6 7 Very Effective

APPENDIX F

Teaching Preparation Survey
Part I – Demographic Information

Adapted from the Preparation for Teaching Survey by Stephanie F. Hall, Ph.D

Greetings Scholars: You have reached the Survey of Junior Faculty Perceptions of their Doctoral Level Teaching Preparation. Your responses are critical to the success of this study and will help inform the preparation of doctoral students for their college teaching role. Your participation in this study includes completing this online survey which takes approximately 10-15 minutes. It is important that you complete the survey in its entirety in order to generate a sufficient number of responses for accurate and generalizable results. Thanks for your participation.

Q.1 Are you employed full-time in a tenure track position?
- ❍ Yes
- ❍ No

Q.2 What is your faculty rank?
- ❍ Professor
- ❍ Associate Professor
- ❍ Assistant Professor
- ❍ Other (Please specify) _____

Q.3 What is your tenure status?
- ❍ Tenured
- ❍ Tenure Track
- ❍ Non tenure-track

Q.4 What is your sex?
- ❍ Male
- ❍ Female

Q.5 What is your race/ethnicity:
- ❍ African American/Black
- ❍ Asian
- ❍ Caucasian
- ❍ Hispanic/Latino
- ❍ Pacific Islander
- ❍ American Indian or Alaska native
- ❍ Other (Please specify) _____

Q.6 In what year did you earn your highest degree?
[ ]

Q.7 Please indicate the year in which your current faculty appointment began.
- ❍ 2007-2008
- ❍ 2008-2009
- ❍ 2009-2010
- ❍ 2010-2011
- ❍ Other (Please specify) _____

Q.8 Is this your first tenure track faculty position within higher education?
- ❍ Yes
- ❍ No

Q.9 What is your broad disciplinary area?
- ❍ Physics
- ❍ Chemistry
- ❍ Geology
- ❍ Biology
- ❍ Political Science
- ❍ Psychology
- ❍ Sociology
- ❍ Economics
- ❍ Other (Please specify) _____

Q.10 Do you primarily teach graduate or undergraduate students?
- ❍ Graduate students
- ❍ Undergraduate students
- ❍ Split 50% graduate students, 50% undergraduate students

Instructions
Please read the following items and respond based on the training that you received as a doctoral student. In responding, please reflect on those activities experienced as a doctoral student and their effectiveness in preparing you for the task of college teaching. Please select the next button to begin.

Q.11 How often did you have discussions with faculty about your teaching philosophy?
- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.12 If you discussed your teaching philosophy with faculty, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.13 How often did faculty share teaching resources (e.g. lecture materials) with you?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.14 If faculty shared teaching resources with you, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.15 How often did you have discussions with faculty about why instructional classroom decisions are made?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.16 If you had discussions with faculty about why instructional classroom decisions are made, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.17 How often did you receive feedback from a faculty member about your teaching skills?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.18 If you received feedback from a faculty member about your teaching skills, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.19 How often were you provided with opportunities to reflect on feedback about your teaching?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.20 If you were given the opportunity to reflect on feedback about your teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.21 How often did you engage in conversations with other students about teaching?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.22 If you engaged in conversations with other students about teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.23 How often did you ask faculty members questions about teaching?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.24 If you asked faculty members questions about teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.25 How many times did you participate in designing a course?

Q.26 If you participated in designing a course, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.27 How many times did you design a course syllabus?

Q.28 If you designed a course syllabus, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.29 How often did you prepare course assignments?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.30 If you prepared course assignments, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.31 How often did you have conversations with faculty about their approaches to grading?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.32 If you had conversations with faculty about their approaches to grading; please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.33 How often did you engage in self assessment with regard to your teaching?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.34 If you engaged in self assessment with regard to your teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.35 How often did you grade exams?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.36 If you graded exams, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.37 How often did you grade or provide feedback on written assignments?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.38 If you graded or provided feedback on written assignments, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.39 How often did you have discussions with faculty about classroom assessments?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.40 If you had discussions with faculty about classroom assessments, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.41 How many times did you independently teach an entire course from beginning to end?

Q.42 If you taught a course independently from beginning to end, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.43 How many times did you teach a course under the supervision of a full time faculty member?

Q.44 If you taught a course under the supervision of a full time faculty member, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.45 How many courses in college teaching did you take?

Q.46 If you took courses in college teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.47 How often did you observe someone teaching (not including classes that you were enrolled in?)

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.48 If you observed someone teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.49 How often did you deliver a lecture in the classroom?
- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.50 If you delivered a lecture in the classroom, please rate this activity's effectiveness in preparing you for teaching:
- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.51 How often did you have discussions with faculty about individual learning differences?
- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.52 If you had discussions with faculty about individual learning differences, please rate this activity's effectiveness in preparing you for teaching:
- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.53 How often did you have discussions with faculty about teaching to a diverse student population?

- ❍ Never
- ❍ Less than Once a Year
- ❍ Yearly
- ❍ Less than Once a Semester
- ❍ Once a Semester
- ❍ Monthly
- ❍ Weekly

Q.54 If you had discussions with faculty about teaching to a diverse student population, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.55 How many times did you attend seminars on college teaching?

Q.56 If you attended seminars on college teaching, please rate this activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.57 As a doctoral student, did you participate in activities sponsored by your institution's center for teaching improvement or the like?

- ❍ Yes
- ❍ No
- ❍ None available

Q.58 If you participated in your institution's center for teaching improvement or the like, please rate the activity's effectiveness in preparing you for teaching:

- ❍ Very Ineffective
- ❍ Ineffective
- ❍ Somewhat Ineffective
- ❍ Neither Effective nor Ineffective
- ❍ Somewhat Effective
- ❍ Effective
- ❍ Very Effective

Q.59 Upon completion of your doctoral degree, please rate your overall preparedness for the task of teaching:

- ❍ Very Unprepared
- ❍ Unprepared
- ❍ Somewhat Unprepared
- ❍ Neither Prepared nor Unprepared
- ❍ Somewhat Prepared
- ❍ Prepared
- ❍ Very Prepared

Q.60 Please provide any additional information about activities or experiences during your doctoral training that would have better prepared you for teaching as a faculty member:

APPENDIX G

IRB Approval Notification Letter

University Committee for the Protection of Human Subjects in Research

University of New Orleans

Campus Correspondence

Principal Investigator:	Marietta Del Favero
Co-Investigator:	Franz H. Reneau
Date:	December 13, 2010
Protocol Title:	"Junior Faculty Perceptions of their Doctorial Level Teaching Preparation: A Cross Disciplinary Examination"
IRB#:	05Dec10

The IRB has deemed that the research and procedures described in this protocol application are exempt from federal regulations under 45 CFR 46.101category 2, due to the fact that any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Exempt protocols do not have an expiration date; however, if there are any changes made to this protocol that may cause it to be no longer exempt from CFR 46, the IRB requires another standard application from the investigator(s) which should provide the same information that is in this application with changes that may have changed the exempt status.

If an adverse, unforeseen event occurs (e.g.,, physical, social, or emotional harm), you are required to inform the IRB as soon as possible after the event.

Best wishes on your project.
Sincerely,

Robert D. Laird, Ph.D., Chair
UNO Committee for the Protection of Human Subjects in Research

APPENDIX H

Permission to Include Modified Instrument in Dissertation

Hello Franz,
You have my permission. I apologize that you didn't get a response, but I have searched my spam folder and I never received your last email. I am not sure what happened. I hope that you had a nice thanksgiving as well.

Stephanie

Stephanie Hall, Ph.D, LPC, NCC
Asst. Professor
Monmouth University
Department of Psychological Counseling
138C Edison
West Long Branch, NJ 07764
732.263.5731

Vita

The author was born in Belize City Belize, located in Central America. He obtained his Bachelors of Science degree in Business Administration from the University of Belize in 1997. Upon graduation, he was accepted to Western Kentucky University where he pursued a graduate degree in Business Administration. He received his Masters degree in Business Administration from Western Kentucky University in 1999. The author went on to spend the next seven years working for a fortune 500 company at the executive level before making the decision to return to the academy to pursue his terminal degree. He joined the University of New Orleans educational administration graduate program to pursue a PhD in educational leadership with an emphasis in higher education. During his doctoral training, he was selected by the Association for the Study of Higher Education (ASHE) to participate in their graduate student policy seminar. The author is also a 2011 recipient of the University of New Orleans dissertation improvement grant. He has presented his research at several professional conferences including the American Educational Research Association (AERA) the Louisiana Educational Research Association (LERA) and the Mid-South Educational Research Association (MSERA) Conferences. He is the recipient of the 2011 Herbert M. Handley Outstanding Dissertation award, given at the 2011 MSERA annual conference.