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ATHLETIC TRAINING: INSTRUCTORS PERCEIVED PREPAREDNESS FOR TEACHING
IN AN ATHLETIC TRAINING EDUCATION PROGRAM

A DISSERTATION

Submitted by

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In partial fulfillment of the requirements
for the degree of

Doctor of Philosophy

LESLEY UNIVERSITY

School of Education

April 1, 2013

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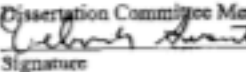
Degree for which dissertation is submitted: Ph.D in Educational Studies with a
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my rock and soulmate. Thank you for always encouraging me to follow my dreams. You made this all possible.

Abstract

Athletic trainers work in clinical settings such as secondary schools, colleges and universities, sports medicine clinics, professional sports, hospitals, and other healthcare environments. However, with the rapid expansion of athletic training education programs (ATEP) over the years, another role for the athletic trainer has developed, the athletic trainer educator. Consequently, it is currently becoming increasingly apparent that athletic trainers must also be equipped with the knowledge and expertise to teach, mentor, and train the future generations of certified athletic trainers within the classroom.

Recently, researchers (Hertel et al., 2001; Craig, 2006; Rich, 2009) have argued that athletic training instructors lack the necessary pedagogical knowledge to be more effective instructors. However, athletic training education is a unique environment that provides both a wealth of content knowledge and many opportunities for students and professionals to engage in inquiry, action, interaction, mentoring, and reflection. Does the athletic training environment provide informal opportunities for students and instructors to gain pedagogical expertise? To learn more about instructors' preparation for teaching, this dissertation explored athletic training instructors perceived preparedness for teaching in an ATEP.

This study used a mixed methods research approach through a self-developed and pre-piloted electronic questionnaire. The approach consisted of collecting and analyzing scalable quantitative and qualitative data as well as written narrative qualitative responses from 364 participants currently teaching within an ATEP. In addition, quantitative data was collected from ATEP program directors regarding their perceptions of pedagogy on instructor preparation and its place within athletic training (AT) education. Through the study's findings, it became evident that instructors' perceived preparedness for teaching is explained by several theories of learning,

such as the mentor/protégé model of learning, experiential learning theory, and social learning theory. Demonstrated by their actions, attitudes, and beliefs, participants placed high value on pedagogy, its importance on effective teaching, and its place within AT education. Furthermore, from within athletic training's unique clinical field and classroom settings, participants demonstrated how each environment provided them with their perceived foundations for teaching within an ATEP. Despite these findings, formal pedagogical preparation and its place within athletic training curricula needs further exploration.

Preface

I have always been fascinated by studies of health and the human body. However, it was not until I began my professional collegiate career as a certified athletic trainer (ATC) and approved clinical instructor (ACI) that I realized I had an equal passion for teaching and better understanding student learning. As an ATC and ACI, I felt confident in my skills and abilities to mentor and promote student knowledge and to develop and apply athletic training competencies and proficiencies. Although some of my mentoring strategies stemmed from the ACI Seminar, a credentialed training program for athletic training clinical instructors, many of my strategies for facilitating students' learning derived from my own experiences as a student and from previous mentors. Together, these experiences and the knowledge I accrued throughout my education allowed me to be a successful ACI. The success I believe I had further provided me with the motivation to become an instructor within the more formal classroom setting.

When I was offered the chance to teach my first course during my second year as a collegiate athletic trainer, I was excited and immediately full of visions of student learning and success as a result of my teaching. However, once I began to plan classes, organize lectures, and develop course content, an overwhelming sense of reality, insecurity, and even fear began to grow. Having only taken one course in pedagogy¹, I questioned my knowledge, training, skills, and abilities as an instructor within the classroom. What teaching knowledge and training did I possess to be effective? What hidden training did I have that would prepare me? Where would I develop my teaching skills and abilities for the classroom?

It has now been six years since I began teaching. Reflecting on my experiences teaching has made me realize how significant my brief pedagogical experience was to my teaching

¹ For the purposes of this paper the term "pedagogy" is used to describe the field of formal educational instruction for all students, including adults.

knowledge, practice, and thus, confidence. My pedagogical coursework provided me with foundational knowledge in teaching theory and methods, course design and planning, and learning styles. While there may be no substitute for experience and reflection on experience for developing one's teaching practice, I believe that my pedagogical coursework better positioned me to develop as an instructor.

My journey to become an instructor has been anything but perfect. If it were not for my pedagogical experience, I question where I would currently be in my development as an instructor. Also, I wonder what has prepared other athletic training instructors to teach? Have other athletic training instructors had more pedagogical preparation than I that prepared them to teach? How instrumental was/is pedagogical preparation to one's perceived preparedness for teaching? What are other athletic training instructors' perceptions of their preparedness for teaching in an athletic training education program? What aspects of their undergraduate and graduate athletic training education do they believe prepared them to be an athletic training instructor? How important is pedagogical preparation to enhancing one's preparedness to become an athletic training instructor? What are/were other athletic training instructors' greatest fears and anxieties when beginning teaching?

While studies of health and the human body still excite me, I have developed a similar affinity for athletic training education since beginning to teach. My passion for teaching and learning has led me to pursue a Ph.D in educational studies with a specialization in adult learning. It is my journey as an athletic training educator that fuels this dissertation study: *What are early professional athletic trainers' perceptions of their preparedness for teaching in an undergraduate athletic training education program?*

Chapter I

Introduction

Athletic training education has grown exponentially since it was recognized as a major discipline of study in 1982. At this time, 10 colleges and universities had adopted the major of athletic training. Since 1982, more colleges and universities have adopted athletic training as a major program of study. In 1998, there were 82 accredited undergraduate athletic training education programs (ATEP). As of 2002, there were 165, and 273 in 2004. According to the Commission on Accreditation of Athletic Training Education (CAATE) and National Athletic Trainers' Association (NATA), as of 2012, there are 341 accredited undergraduate ATEPs, 26 entry-level masters ATEPs, 15 post-professional graduate ATEPs, and 15 doctoral programs in the country (CAATE, 2012; NATA, 2012). With this expanding number of programs, there is an increasing demand for athletic training (AT) instructors. A review of each athletic training program's website, curricula, and course of study, reveals that only 16 of the 382 undergraduate (10) and graduate athletic training education (6) programs (not including the 15 doctoral programs) offer pedagogy within their curriculum design.

As the profession of athletic training grows, so does its need for competent athletic training instructors. However, as noted above, few athletic training programs have implemented instructional practices/pedagogy within their curricula to meet this demand. One of the growing concerns within athletic training is that its instructors are not fully prepared to teach. Some researchers (Craig, 2006; Rich, 2009; Hertel, West, Buckley, & Denegar, 2001) recommend that formal teaching experience and pedagogical knowledge be incorporated into athletic training education curricula to meet current demands. While this is a newly recognized concern in athletic training, other allied health professions, such as nursing, occupational therapy, and physical therapy have realized the importance of professional development in pedagogy for

enhancing student learning (Steiner, Hewett, Floyd, Lewis, & Walker, 2010; Lewis & Baker, 2009). These health professions have implemented pedagogical coursework within their curricula, thus better preparing students to not only become successful nurses, etc., but also prominent leaders in teaching their trade to future generations.

Athletic training is a division of sports medicine that involves the recognition, care, and treatment of orthopedic injuries. As with other professions of the health sciences, athletic training's foundations are firmly built upon evidence-based literature and findings. However, athletic training education differs from many other sciences in that there is a greater emphasis on the clinical application of the learned foundations. Under the supervision of a licensed physician, athletic trainers administer immediate emergency and follow-up care. Using their knowledge of biomechanics, anatomy, and pathology, they develop athletic injury prevention and treatment programs. Athletic trainers are a key link in communicating with the injured athlete, the physician, the coach, and the athlete's family. In cooperation with physicians and other health personnel, an athletic trainer functions as an integral member of the athletic health-care team.

Since the 1950s, athletic trainers have worked diligently to become recognized as allied healthcare providers. To achieve this, the profession has dedicated itself to enhancing the knowledge and expertise of its students and members through five domains: injury/illness prevention and wellness protection; clinical evaluation and diagnosis; immediate and emergency care; treatment and rehabilitation; organizational and professional health and well-being (Board of Certification, 2010). These five domains reflect the knowledge and skills possessed by athletic trainers.

Two essential components in an athletic training program are classroom instruction and clinical experience. Athletic training students are evaluated on their success in both the

classroom and clinical setting. In the classroom, students are assessed on their ability to pass formal exams; whereas, in the clinical setting, their success lies upon their ability to successfully demonstrate a number of competencies and proficiencies. Mastery of both the formal classroom and informal clinical settings is an arduous task for many AT students.

Today, the CAATE is responsible for the accreditation of many entry-level athletic training programs. As part of its mission, CAATE provides accreditation services to institutions that offer athletic training degrees and ensures that each accredited program meets the educational standards for professional athletic training education. As part of its accreditation standards, CAATE works in conjunction with the National Athletic Trainers' Association Professional Education Council (PEC) to develop clinical competencies and proficiencies that best reflect the command and knowledge of skills an entry-level certified athletic trainer must possess to be successful in the field (National Athletic Trainers' Association, 2011). The PEC has categorized eight major content areas expected of an entry-level athletic trainer. These include:

1. Evidence-based practice
2. Prevention and health promotion
3. Clinical examination and diagnosis
4. Acute care of injuries and illnesses
5. Therapeutic interventions
6. Psychosocial strategies and referral
7. Healthcare administration
8. Professional development. (NATA, 2011)

While competency and proficiency in all of these areas are essential to fieldwork in athletic training, it cannot be assumed that these skills translate into an expertise in teaching or mentoring undergraduate students in athletic training courses and degree programs.

The educational structure of athletic training provides both a wealth of content knowledge and many opportunities to apply theory to practice. Students and professionals engage in inquiry, action, interaction, mentoring, hypothesizing, and reflection. Each of these processes provides students and professionals with invaluable skills and knowledge to be successful within the profession. However, do these educational processes transfer to informal pedagogical knowledge, which can then be transformed into effective instruction? Experiential learning theory is but one adult learning theory that could explain how athletic trainers gather the preparation and tools necessary to becoming an instructor within athletic training education.

Kolb's (1984) model of experiential learning is one of the most highly referenced theories in adult learning. Kolb's model of experiential learning is a collective and integrated approach for examining how adults grow, learn, and create knowledge through experience. As the name of the theory implies, experiential learning is premised upon how one's life and lived experiences inform and contribute to adult learning and development. The combination of the classroom and clinical settings, as well as their strong mentorship components, may provide athletic trainers with the necessary confidence and informal pedagogical skills to become an instructor within an ATEP.

Recently, researchers (Craig, 2006; Hertel et al., 2001; Rich, 2009) have argued that many athletic training instructors lack the necessary pedagogical knowledge to be effective instructors. They believe that athletic trainers need to take coursework in pedagogy as a part of their own education in order to be effective instructors in undergraduate ATEPs. However, there

has not been any research to date that explores the experiences of current instructors who lack formal pedagogical experience with regards to their preparedness to teach within an athletic training curriculum.

For the last 60 years, the NATA has prided itself on providing its students with the most current and innovative knowledge and skills necessary to become successful within the field. In the past, athletic training professionals might find themselves working as allied healthcare providers in settings such as secondary schools, colleges and universities, sports medicine clinics, professional sports programs, hospitals, and other healthcare settings. However, with the rapid expansion of athletic training programs over the years and across the country, another role for the athletic trainer has developed, the athletic trainer educator. Pedagogical experience may be a critical link in better preparing athletic training students for this new realm of athletic training. This dissertation explores the educational and pedagogical experiences of current athletic training instructors. More specifically, it explores the perceptions of athletic training instructors with regards to what they believe provided them with the knowledge, confidence, and expertise to be an instructor within an accredited athletic training education program.

Chapter II

Literature Review

Since its beginning in 1950, the National Athletic Trainers' Association (NATA) has committed itself to producing highly trained and skilled clinicians. To achieve this, athletic training's foundations are firmly built upon evidence-based literature and findings, as well as practical, hands-on experience through clinical experience and clinical internships. Athletic training has undergone enormous growth in its short 60-year history. In this period of time, athletic training has gone from being confined to the equipment rooms of schools and colleges to establishing itself as a vital member of the medical community within colleges, universities, high schools, orthopedic clinics, hospitals, and many other related organizations.

Athletic training education began in 1959 when the NATA approved its first curriculum model, which would later be officially recognized by the NATA and implemented in four institutions in 1969 (Delforge & Behnke, 1999). As athletic training's reputation for clinical expertise in athletic health care continued to flourish, more colleges and universities adopted athletic training as a major program of study. Today, there are 341 accredited undergraduate athletic training education programs (ATEP), 26 entry-level master's ATEPs, 15 post-professional graduate ATEPs, and 14 doctoral programs in the country (caate.net; nata.org). The dramatic growth of athletic training over this time period is a reflection of the National Athletic Trainers' Association and its professionals' hard work, persistence, and commitment to clinical excellence.

Today, athletic trainers have evolved into far more than clinical experts. It is currently becoming increasingly apparent that athletic trainers must also be equipped with the knowledge and expertise to teach, mentor, and train the future generations of certified athletic trainers enrolled in the expanding undergraduate and graduate programs. We are in a new age of athletic

training as a result of its fast evolution. In order for athletic training to maintain its sustainability and continue its evolution, is there now a new need to not only produce clinical experts but also experts with the tools necessary to educate the growing number of students, current and future?

Throughout the year, the National Athletic Trainers' Association's website, nata.org, consistently displays a list of current job opportunities within the field. Each listing describes the job's setting, responsibilities, and employment requirements. In the college/university setting, job responsibilities for athletic trainers have expanded to encompass instruction as well as athletic training. While investigating the roles of athletic trainers in the college setting, Craig (2006) discovered that nearly half (45.8%) of the jobs posted on the NATA career center website had teaching responsibilities associated with the job. Of the jobs requiring a master's degree, 73.3% of those (33 out of 45) had teaching responsibilities associated with the job. However, of those 33 jobs, two-thirds did not require any previous teaching experience. According to the NATA Career Center (November, 2011), there are 116 athletic training positions available at the collegiate and high school level. Of those, 33.6% or 39 positions require teaching responsibilities, five of which are high school level positions. Of the 34 collegiate level dual athletic trainer/instructor positions, 70.5% display no indication that previous teaching experience is required for the position.

As of October 2012, there are 26 positions available on the NATA career center website that require teaching responsibilities. However, of those, only three positions are collegiate-level dual athletic trainer/instructor positions. The remaining 23 positions with teaching responsibilities are full-time faculty and program director positions. While it may seem promising that the number of dual positions has decreased since 2011, it may be more reasonable to assume that because it is very early in the academic year, many dual positions have not

become available. Despite this, it is still troubling to see that none of the current three dual positions reference necessary teaching experience.

As the profession of athletic training continues to grow, so will its need for competent athletic training instructors. However, there currently are few programs that have implemented instructional practices/pedagogy within their curriculums to meet this demand. Today there are 41 accredited graduate athletic training education programs, not including doctoral programs, in the country that offer specializations in athletic training. Of those, only six institutions offer pedagogical instruction and/or learning theory within their curriculum structure. One of the growing concerns within athletic training is that its instructors are not fully prepared to teach. Some researchers (Hertel et al., 2001; Craig, 2006; Rich, 2009) recommend that formal teaching experience and pedagogical knowledge be incorporated into athletic training curriculums in order to meet current demands.

In the late 1950s and early 1960s, one of the primary components of the athletic training curriculum model consisted of the completion of a secondary-school-level teaching credential, through formal pedagogical coursework (Delforge & Behnke, 1999). However, in the early 1980s the demand for more specialized athletic training professional preparation grew, thus leading the NATA Professional Education Committee to eliminate the once emphasized attainment of a secondary-level teaching credential (Delforge & Behnke, 1999). Since this time, athletic training education has continued to become more and more specialized, emphasizing professional preparation, and almost completely dissolving its pedagogical roots. However, it has become apparent, due to its rapid growth over the past 32 years, there may be an even greater need for both professionally prepared and pedagogically prepared athletic trainers in the field once again.

Pedagogy & Allied Healthcare Education

It is often assumed that in the college and university settings, expertise in one's own discipline translates into the assumed equal ability to teach and effectively instruct eager learners. The assumption that expertise also provides an inherent ability to effectively teach diminishes the importance of teacher education programs. If expertise and teaching do coincide, then what purpose do education programs serve, aside from teaching educators how to teach? While knowledge and expertise are critical elements to success within one's own discipline, knowledge of and experience in pedagogy may also be essential elements in the successful instruction of that discipline. Postareff, Lindblom-Ylanne, and Nevgi (2007, 2008), Coffey and Gibbs (2000), and Cilliers and Herman (2010) are some of the most recent researchers who have examined the effectiveness of pedagogical training within higher education. They have identified pedagogical training as having a positive impact on one's teaching beliefs, approach, knowledge, and skills. More specifically, these researchers have shown pedagogical training to have a strong influence on changes to individual behavior and organizational practice, as well as enhanced self-efficacy, enthusiasm, organization, rapport, and student learning, especially in those instructors new to their field. Recently, other allied healthcare educational programs, such as nursing, occupational therapy, and physical therapy have recognized the importance of pedagogically preparing its professionals to meet today's educational and professional demands and have begun to implement pedagogy within their curricula.

In the past several years, nursing and other allied healthcare professions, such as occupational therapy and physical therapy, have experienced significant growth as a result of the United States' recent economic downturn. As a result, more people are searching for jobs in the healthcare sector, which is seen as a secure job environment, and more specifically within nursing. In the past, nursing education was primarily focused on producing expert clinicians.

However, a recent need to produce qualified nurse educators has developed to meet current demands. Online and web-based programs (AACN Education Scholar Program), conferences (DI Associates Inc. Nurse Educator Boot Camp), and post-master's certificates (National League for Nursing) have been developed for nurse educators to develop or enhance teaching within the profession. The American Association of Colleges of Nursing (AACN) Education Scholar program was developed in 1999 and is the one of the first programs to recognize the importance of faculty and educator development (Education Scholar, 2012). The AACN Education Scholar program is a comprehensive online program composed of teaching methodology, distance, problem-based and experiential learning principles, active-learning strategies, and classroom management techniques (AACN, 2011). In addition to mini-workshops and symposia on nursing education like the Nurse Educators Boot Camp, as of 2009 nursing also offers a specialty certification, accredited by the National Commission for Certifying Agencies (NCCA), to provide further academic expertise within its classrooms and establish nursing education professionalism within its field.

Developing the instructional skills of occupational therapy's prospective and current faculty has been an area of focus for many occupational therapist professionals and researchers (Padilla, 2007; Cosgrove, 2005; Mitcham & Gillette, 1999; Brayley, 1996; Mitchell, 1985). Comparable to other allied healthcare educators, occupational therapists often arrive in academia with little experience and preparation in pedagogy. Some of the earliest efforts to compensate for occupational therapy educators' inexperience with pedagogy came in the early 1990s, when Evans (1995), Hitchcock, Stritter, and Bland (1993), and Irby (1993) suggested that informal and formal faculty development programs (is) are one way occupational therapist educators can develop and sustain pedagogical skills within their academic setting. In recognition of the

disparity in the preparation and training for teaching of OTs and need for highly trained educators, the American Occupational Therapy Association (AOTA) Executive Board assembled to create a model for the development, recruitment, and retention of occupational therapist educators (AOTA, 1993). With the help of the American Occupational Therapy Foundation (AOTF), the AOTA Executive Board developed a one-week, intensive, three-credit course for young professional OT educators. The purpose of the course was to better identify the characteristics and instructional processes new OT educators possess, as well as enhance their teaching knowledge and pedagogies through learning activities, laboratory practice, didactic presentations, and evaluative teaching sessions (Mitcham & Gillette, 1999). Stemming from the successes of the one-week course, several subsequent courses and workshops have been offered, focusing on the professional development of occupational therapy educators.

Furthermore, in their continued pursuit to produce and enhance the quality of occupational therapy education and the pedagogical knowledge and expertise of its instructors, the Accreditation Council for Occupational Therapy Education (ACOTE), in 2005, proposed to each of its stakeholders, AOTF, the board of certification, clinicians, educators, consumers, and others, that after July 1, 2010 all full-time faculty must possess a doctoral degree (ACOTE, 2005). According to the ACOTE accreditation standards (2005), “All full-time faculty must hold a minimum of a master’s degree. By July 1, 2012, the majority of full-time faculty who are occupational therapists must hold a doctoral degree” (A.2.9, p 2). However, the most recent ACOTE (2012) standards state, “The majority of full-time faculty who are occupational therapists must hold a doctoral degree...For an even number of full-time faculty, at least half must hold doctorates” (A.2.8, 2012).

Physical therapy is another field that has experienced significant growth over the last several decades, along with the need for more highly trained and educated instructors. The profession of physical therapy emerged in response to a great number of wounded World War I soldiers and poliomyelitis epidemics in the early 1900s (Plack & Wong, 2002). During this period the preservation of a fighting force and the enhancement of quality of life became a priority. In response, the first physical therapy baccalaureate education programs evolved in the 1930s. However, as time passed, another world war and the increased incidence of disease prompted the expansion of physical therapists' roles. In response to these changes, the American Physical Therapy Association (APTA) strove to enhance the educational standards of its members in the 1990s by introducing the transition of the professional degree from a baccalaureate to a post-baccalaureate master's degree program. The APTA continues to have high expectations for the education and professionalism of physical therapy, announcing to its members in a Vision Statement (2012), "By 2020, physical therapy will be provided by physical therapists who are doctors of physical therapy" (APTA, para. 3).

The transition of physical therapy education programs from a post-baccalaureate degree to a terminal degree—doctor of physical therapy (DPT) serves two purposes. The first and more professionally oriented purpose is to enhance physical therapy's reputation among the allied healthcare community, as well as earn greater respect from healthcare insurance representatives for the goal of becoming a fully autonomous practice (Plack & Wong, 2002). The second purpose is APTA's continued desire to improve the quality of physical therapy education. Soderburg (1989) was one of the earliest physical therapy researchers to recognize the importance of having doctorally trained physical therapist educators within its many programs. Currently the Commission on Accreditation in Physical Therapy Education (CAPTE)

accreditation standards handbook (2011) states, “Each individual *core faculty* member, including the *program administrator* and *ACCE/DCE*, has contemporary expertise in assigned *teaching areas*” (p. B-9, F-1). Contemporary expertise is further defined by the CAPTE standards to include evidence of post-professional academic work, residency, and continuing education, clinical experience related to teaching areas, publications and presentations related to teaching areas, and consultation and service related to teaching areas (CAPTE Accreditation Handbook, 2011). While the handbook and accreditation standards do not explicitly require faculty to be doctorally trained, its standards of contemporary expertise subtly implies an expectation that physical therapy faculty possess a terminal degree.

Physical therapy’s dedication to providing optimal healthcare has been made obvious to many through its intense devotion and radical transitions within its educational standards. Throughout its short history, educational advancement and expertise has been of primary significance. The transition from a post-baccalaureate degree to a doctoral degree is but one way physical therapy is ensuring that the future of physical therapy education is taught by doctorally trained professionals.

Nursing, occupational therapy, and physical therapy are three allied healthcare professions that have recognized the importance of educational expertise and pedagogical training to the growth and advancement of their profession and its influence on the development of their learners. These professions are similar in that each is scientifically based, but success within clinical settings lies in the practical application of clinical skills. Over time, these professions and their academic councils have come to acknowledge that without formal preparation in teaching, these clinical experts are less likely to possess the pedagogical knowledge to be more successful in their classrooms. Therefore, while knowledge of one’s own

discipline is highly valued within these professional education programs, pedagogical knowledge has become of additional importance. As a result, the professions have provided more opportunities for their educators to gain and enhance their foundational teaching knowledge. These opportunities, along with improved standards for collegiate teaching, demonstrate(s) the profession's dedication to formal teaching preparation and educational expertise. Nursing, occupational therapy, and physical therapy have identified a pedagogical gap within their educational programs and its instruction. Recent trends suggest that these professions as well as others are educating its members in teaching theory as one avenue to bridge the pedagogy gap. Furthermore, it can be argued that adult learning theory provides a distinct lens, through which pedagogical education in healthcare can be understood.

Adult Learning Theory & Athletic Training Education

Only a fraction of research has been devoted to adult learning in comparison to research on children's learning. In recent decades, however, the recognition of adults as a distinct population of learners has prompted theorists to take on the task of determining how to best meet the specific educational needs and expectations of the adult population. Over the past several years numerous allied healthcare professions, such as nursing, occupational therapy, and physical therapy have recognized the impact of adult learning theory on the development of its learners (Fisher, King, & Tague, 2001; Wilkinson, 2004; Mitchell & Courtney, 2005; Cahill & Bulunda, 2009; James & Prigg, 2004; Plack, 2005; Graham, 1996; Jarski, Kulig, & Olson, 1990). In response to the growing demand for more pedagogically experienced instructors within these professions, more discussion, publication, and research has been conducted with regards to adult learning theory, in an effort to aid in the professional development and educational expertise of these allied healthcare instructors (Trujillo, 2007; Plack, 2005; Wilkinson, 2004; Dobbin, 2001;

Jarski et al., 1990). Constructivist theory, and experiential learning theory are two of the most prominent adult learning theories within nursing, occupational therapy, and physical therapy educational research (Fisher et al., 2001; Wilkinson, 2004; Mitchell & Courtney, 2005; Cahill & Bulunda, 2009; James & Prigg, 2004; Plack, 2005; Graham, 1996; Jarski et al., 1990). While these adult learning theories have helped to inform other allied healthcare educational systems, adult learning theory has not been explored much in the context of developing pedagogical knowledge and expertise to teach within athletic training. The aim of the following section is to examine how adult learning theories, such as constructivist theory and experiential learning theory inform the teaching practices of athletic training instructors in the absence of formal training.

Athletic training educators face the challenge of educating their students in both the classroom and clinical setting, often without formal pedagogical preparation. However, through the learners' experiences in the classroom and in the clinical setting, various adult learning theories and principles not only inform professional practice but pedagogical or instructional knowledge and practice as well.

Constructivist theory is a broad conceptual framework of learning, primarily based upon the cognitive processes from which learners develop knowledge from experiences and their reflections upon those experiences. Learning is thus conceived as an active process in which the learner constructs and reconstructs meaning from immediate and previous experiences. Constructivist theory helps to explain how learners, through active reflection on a particular concrete experience, are provided with the opportunity to interpret that experience into new or reformed knowledge. According to the theory, learners store new knowledge as a concept, which can then be applied to new situations. Based upon their previous knowledge, ideas, and

experiences, learners are afforded the opportunity to accept or reject formulating new knowledge from new encounters or experiences. Ultimately, each person generates his or her own rules and mental models, which are used to make sense of our experiences.

Constructivist theory helps to explain how athletic training instructors draw from their previous experiences and informally understand pedagogical theory to apply to real life situations and scenarios, such as those in the classroom. Often within athletic training education, scenarios and real-life examples of injuries, evaluations, and rehabilitations are used as strategies to teach students and generate discussion and analysis. Implementing these strategies requires a working knowledge of the fundamental processes and theoretical underpinnings of athletic training. Through knowledge and previous experiences, instructors guide athletic training students' construction of knowledge. For example, based upon an initial injury scenario each student develops his or her own beliefs of what the injury is, how it occurred, and how it should be evaluated. Collaboratively, with instructor's lived examples, students investigate the injury scenario, which affords them the opportunity to transform their knowledge by accepting or rejecting various evaluative strategies and methods. While athletic training instructors may be naïve to learning theories and their direct application to teaching, many strategies used to assist learning in athletic training are constructivist in nature. However, the question still remains, how do athletic training instructors become competent instructors without explicit courses in curriculum and instruction?

The first place instructors of athletic training begin to construct their knowledge and perspectives of teaching is from their earlier experiences as students themselves. Athletic training environments are structured so that instructors and learners are immersed in experiences within which they may engage in inquiry, action, interaction, hypothesizing, and personal

reflection. Reflection is a necessary component in knowledge development with each new experience. As students, there are numerous opportunities to observe instructors, mentors, Approved Clinical Instructors (ACI), injuries, techniques, skills, rehabilitations, or assessments. Each of the aforementioned qualities of an athletic training learning environment is what Cooperstein and Kocovar-Weidinger (2004) believe is characteristic of a constructivist classroom. The wealth of information gathered from students' experiences affords them opportunities to store, construct, and reflect upon their knowledge as future instructors. In other words, the athletic training environment itself promotes constructivist learning. The combination of classroom and clinical education within athletic training assists learners in transforming their experiences into new and meaningful knowledge, which can then be applied in various environments such as the classroom and professional field. Wilson (1996) defines a constructivist learning environment as "a place where learners may work together and support each other as they use a variety of tools and information resources in the guided pursuit of learning goals and problem-solving activities" (p. 5). While constructivist theory may not be explicitly taught in athletic training education, its educational environment contains the qualities of constructivist learning that provide a model of teaching and learning for future athletic training instructors.

It can be argued that constructivism is a very broad conceptual framework with many variations in perspectives, such as professed by Jean Piaget (1977), Jerome Bruner (1964) and Lev Vygotsky (1978). Despite the variance of perspective, constructivist theory ultimately explains the cognitive processes from which learners interpret and transform knowledge. The constructivist environment of athletic training affords instructors opportunities to recognize and utilize personal experiences, prior knowledge and perceptions to construct knowledge and

meaning. The pedagogical development of athletic training students and instructors is not a direct result of the explicit application of adult learning theories. Rather it is by applying constructivist theory to athletic training's teaching and learning environments that student and instructor pedagogical acquisitions and developments can be understood. However, the pedagogical practices and preparation of athletic training instructors may be best understood through experiential learning theory. Today, Kolb (1984) is recognized as one of the primary pioneers of experience-based learning, but much of his inspiration derived from constructivist theorists such as Jean Piaget (1970), Jerome Bruner (1964), and Lev Vygotsky (1978).

Nested within the constructivist epistemology is experiential learning theory. Experiential learning means to learn through experience. Kolb (1984) defines experiential learning as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming it" (p. 41). Kolb's experiential learning theory provides a pathway for athletic training instructors to take more ownership in their learning, knowledge development, and pedagogical attainment and enhancement.

Kolb's experiential learning cycle is less of a step-by-step process than its name implies. Rather, it is a model of learning often represented by a graph placing four modes of learning (concrete experience, reflective observation, abstract conceptualization, and active experimentation) on four quadrants produced through the intersection of two axes. Each of Kolb's four modes of learning can be used to understand the pedagogical development of athletic training instructors. Similar to how constructivist theory explains how instructors gain their preparation for teaching, experiential learning theory also explains how instructors' past and present experiences contribute to their instructional way of knowing. The following will describe

each of Kolb's four modes of learning and explain how instructors' previous experiences as a student and current experiences as teacher enhance their preparation for teaching in an ATEP.

The first of Kolb's (1984) modes of learning is concrete experience. According to Kolb (1984), "an orientation toward concrete experience focuses on being involved in experiences and dealing with immediate human situations in a personal way" (p. 68). Throughout athletic training students' academic career they are encouraged to develop and learn new knowledge and skills collaboratively. Each day students engage in numerous direct learning experiences from which they can develop meaning. Through collaborative learning, students are afforded the opportunity to process their experiences individually as well as through their observations of the group (Harrelson & Leaver-Dunn, 2002). Student mentoring is an informal learning strategy whereby students are encouraged to assist in the knowledge development of their peers. Both participating and interacting in these direct experiences foster growth of knowledge and understanding or perception of learning processes and modes as well. Later, the lessons learned while mentoring translate into informally understood instructional knowledge, which instructors apply to teaching a lesson, evaluating students, facilitating learning, implementing learning plans, orchestrating discussions, or managing a classroom. Mentoring can be described as a nurturing process in which those with more experience "teach" those who are less experienced for the purpose of promoting development (Anderson & Shannon, 1998). However, it can be argued that knowledge development through mentoring is a simultaneous and reciprocal relationship that promotes learning for both parties and not just its recipient.

During this process, students' knowledge, beliefs, and understandings of teaching and learning are constantly constructed and reconstructed to form new beliefs, ideas, and strategies for teaching and learning. Peering through the lens of the experiential learning theory and the

constructivist epistemology, mentoring provides students with early opportunities to develop and further construct their beliefs on teaching, which better prepares them for teaching as an instructor of athletic training. According to Candy (1991), constructivism is “how people make sense of the perplexing variety and constantly changing texture of their experience” (p. 255). Learning from this perspective is best perceived as an active process of constructing meaning and transforming understanding. According to the principles of constructivist theory, students of athletic training are provided with numerous opportunities to evaluate their experiences as a student to better inform their pedagogical practices as an instructor.

A second component to Kolb’s (1984) experiential learning cycle is reflective observation. Reflective observation is premised upon the opportunity to observe an experience and the ability to reflect upon those observations and experiences to inform judgments, thoughts, and ideas. According to Kolb (1984), “an orientation toward reflective observation focuses on understanding the meaning of ideas and situations by carefully observing and impartially describing them” (p. 68). Although Kolb separates reflective observation from his other three modes of experiential learning, it complements the other modes. Reflection and critical reflection of instructors’ experiences are necessary components to enhancing teaching knowledge and skills. As new classroom and teaching experiences occur, athletic training instructors are provided with a wealth of information to be stored, transformed, and reflected upon when similar situations arise. Reflection, therefore, enables instructors to better transform the numerous experiences they encounter into new and meaningful knowledge, thus enhancing their preparedness for teaching.

Another factor of reflective observation that can help one understand athletic training instructors’ pedagogical preparedness for teaching is, again, within their experiences as a

student. We can all remember previous instructors that have both positively and negatively influenced our life during our educational experiences. As students, we make conscious judgments of our instructors regarding their styles, presentations, personality, assignments, activities, etc. Often these personal assessments have no impact on one's professional future. However, for instructors, but more specifically athletic training instructors, reflective observations of previous instructors are an essential element in the development of an athletic training instructor's teaching identity. From these experiences and their reflections on those experiences, athletic training students are able to enhance and transform their beliefs of "effective" teaching to inform their own teaching practices.

In addition, whereas other traditional disciplines involve mainly the classroom setting, the unique educational environments of athletic training, which include the classroom, clinic, and field, provide students with greater opportunities to observe teaching and learning in a myriad of settings. Later, as teachers, athletic training instructors have the ability to reflect upon and develop skills, traits, lessons, and activities from their previous instructors and experiences that they believe best informs their practice. Thus, in the absence of formal pedagogical training, through the lens of experiential learning theory we can visualize another area from which a culmination of observable experiences inform athletic training instructors' knowledge and understanding of teaching.

Abstract conceptualization, another of Kolb's (1984) experiential learning theory modes, is a critical step in the process of calling upon athletic training instructors' informally understood pedagogical foundations to reinforce or formulate new theories or models that can support pedagogical fundamentals. According to Kolb (1984), "an orientation toward abstract conceptualization focuses on using logic, ideas, and concepts. It emphasizes thinking as opposed

to feeling” (p. 69). However, Kolb’s theory helps us to understand through the lens of experiential learning theory how athletic training instructors’ mentoring experiences as a student inform their practice when they have not had specific courses in curriculum and instruction. Often devoid of formal guidance, students attempt to teach one another athletic training, skills, concepts, and theory to develop, enhance, and reinforce their knowledge. Mentoring allows students to formulate personal strategies and understanding for teaching. Student successes and failures during mentoring provide an invaluable lesson from which they strengthen and develop theories of teaching and learning. Each lesson is later conceptualized into informally understood pedagogical fundamentals, which can be utilized as athletic training instructors to further refine and enhance teaching practice.

Once in the classroom, Kolb’s abstract conceptualization learning mode demonstrates how previous experiences of similar situations informs practice. Within the classroom, athletic training instructors encounter an abundance of information each day. Instructors’ abilities to transform their informal understanding of pedagogical concepts and theory to the classroom are extremely valuable to their continued success. One prime example of abstract conceptualization is when students have difficulty understanding an athletic training concept or theory. In this experience, sufficient knowledge and expertise of teaching and learning or pedagogy may be necessary. However, in a profession such as athletic training, where formal pedagogical training is often atypical, instructors, through their previous student and current teaching experiences, are provided with an opportunity to recall upon, reflect, and formulate new and deeper understandings of what the student/s are experiencing and how to best facilitate their learning. While the ultimate goal within teaching is student development, through abstract conceptualization, instructors are able to further enhance and inform their practice.

The last of Kolb's four modes is active experimentation. According to Kolb (1984), "an orientation toward active experimentation focuses on actively influencing people and changing situations. It emphasizes... doing as opposed to observing" (p. 69). In other words, active experimentation places emphasis on planning and implementation. Through active experimentation instructors rely heavily on their beliefs, knowledge, and what they have come to understand about teaching to formulate their identity as an instructor. Active experimentation is another aspect of Kolb's model that aids in understanding how athletic training instructors learn to become more effective teachers. Although Kolb's model is intended to identify orientations toward learning, one could argue that the mode of active experimentation can be viewed as a culmination of the previous three modes. Instructors' concrete experiences, reflective observations, and abstract conceptualizations provide the foundations of teaching and learning from which they can experiment with to create a teaching identity.

Each day in athletic training education, instructors are challenged to plan and implement learning goals and objectives. These objectives may be in the form of teaching athletic training concepts and theories to facilitate and ensure student competency and proficiency or mastery of athletic training skills, practice, and instructed concepts. Kolb's experiential learning theory helps show how instructors summon their informal knowledge and understanding of pedagogical theories and concepts, as well as any previous experiences or observations they have had to postulate plans, goals, and courses of action and facilitation for a variety of situations. Furthermore, Kolb's experiential learning theory explains how athletic trainers become competent instructors within athletic training education.

Kolb's experiential learning cycle demonstrates how experiential learning theory helps athletic training instructors gain their pedagogical practices. Every aspect of Kolb's experiential

learning cycle promotes and facilitates new understanding and growth for athletic training instructors. The nature of athletic training education creates an ideal learning environment for all its learners/instructors to apply, create, and transform their knowledge experientially. Typically, experiential learning theory is not formally taught to athletic training students, however it corresponds well with what occurs in athletic training education. Learning to teach within athletic training may be a result of years of informal practice, and is explained by Kolb's theory of experiential learning.

Adult learning is a complex phenomenon. Constructivist theory and experiential learning theory are but two theories of adult learning that provide a rich understanding of the pedagogical developments and practices of athletic training instructors. As athletic training education continues to grow and evolve, so must the scholarly agenda of athletic training researchers supporting educators with instructional theory and pedagogy. The application of adult learning theory to athletic training education may be one way that best illustrates how its teaching and learning environments contribute to the preparation and development of athletic training instructors.

Conclusion

There is a myriad of literature concerning learning theory and best practices invested within allied healthcare professional education programs such as nursing, occupational therapy, and physical therapy. Each of these professions have recognized the need to further develop the educational expertise and produce more pedagogically experienced instructors, and have enhanced their educational standards. They have provided numerous professional development opportunities and educational resources to enhance the teaching practices and professional development of their instructors. However, due to its relatively short history, strong dedication to

scientific content, and the quest for enhanced recognition within the allied healthcare community and public, the profession of athletic training has only begun to explore the implications pedagogical training could have on the future of athletic training education.

Hertel, West, Buckley, and Denegar (2001) were the first researchers to recognize the importance of providing more educationally experienced athletic training instructors to athletic training curriculums. They endeavored to explore three components related to professional preparation and the employment characteristics of doctoral-educated athletic trainers. These authors argue that more athletic training doctoral programs should incorporate teacher and program administrator training within curriculums to provide athletic training with future generations of highly skilled athletic training classroom instructors and program administrators. Consistent with these beliefs, Craig (2006) and Rich (2009) also argue and recommend that formal teaching experience and pedagogical knowledge be incorporated into athletic training curriculums to meet today's demands for more trained instructors. Craig (2006) notes that more and more certified athletic trainers (ATC) are being appointed to dual positions that require professionals to work both in the clinical setting as athletic trainers as well as in the classroom as adjunct instructors within athletic training education programs (ATEP). Craig further questions the pedagogical training of athletic training instructors by acknowledging that at the time of her study there was only one master's degree program in the country that offered teaching methodology instruction within its curriculum.

The lack of teaching methodology, pedagogy, and professional development with regards to instructional practices within athletic training education is a distinct gap in the professional preparation of its instructors. In the existence of such a gap, where are athletic training instructors gaining the instructional expertise to effectively assist their learners? While athletic

training faculty may not be formally trained in pedagogy, does athletic training's educational environment provide its learners with informal pedagogical knowledge through its intense clinical internship programs, mentoring components, and its traditionally small program sizes? In an effort to better understand these phenomena, this dissertation intends to explore the factors that have prepared athletic training instructors in the absence of formal pedagogical preparation.

While athletic training educators are skilled and knowledgeable in scientific and evidence-based inquiry, few may be aware of, or trained in, learning theory, adult learning theory, and/or pedagogic research and strategies. The disconnection between instructors' knowledge of athletic training scientific content and training of learning theory and pedagogy has major implications for the advancement and transformation of knowledge for athletic training students.

Chapter III Methodology

Introduction

The purpose of this chapter is to explain the processes, methods, and rationale for exploring the study's overarching research question: *What are early professional athletic trainers' perceptions of their preparedness for teaching in an undergraduate athletic training education program?* Furthermore, this chapter will discuss the researcher's epistemological framework; reasons for choosing a mixed methods approach, its participants, data collection processes; and assumptions and bias.

Epistemology

This research was developed through my personal voyage in becoming an instructor within an athletic training education program (ATEP). I was first asked to teach my first course close to seven years ago. At the time, I was extremely excited at the opportunity as well as confident in my athletic training knowledge to perform the task. However, during my journey, I experienced some fear and anxiety, and questioned my preparedness as an instructor. At the forefront of my concerns was: do I possess enough pedagogical understanding to effectively convey my knowledge through teaching, having only taken one course on pedagogy throughout my education? Initially, I relied heavily on my personal experiences, likes and dislikes, and preferences for learning as a student to guide my teaching practice and help answer my questions. However, over time I have begun to realize and better understand, not only how important my student and professional experiences were to my teaching but how valuable my pedagogy course was to my teaching knowledge and self-confidence. Since beginning to teach, I have answered and conquered many of my own questions, fears, and anxieties through critical reflection and practice. As a result of my voyage, I have become eager to learn more about how

other athletic training instructors perceive/d their preparedness for teaching within an ATEP, as well as, the factors that contributed to their perceptions.

Through my experiences as an instructor, I realize and acknowledge that while conducting my research I bring a particular worldview. A worldview, as defined by Guba (1990), “is a basic set of beliefs that guide action” (p. 19). However, I have taken several steps to bracket my perspective as a researcher and its influence on my findings and conclusions, described in detail later in this chapter. By explaining my experiences and voyage to becoming an instructor as well as taking steps to bracket my perspective, I believe I have effectively situated my worldview to better understand the perceptions of this study’s participants.

Methodology

The research used a mixed-methods approach. According to Creswell and Plano-Clark (2011), “mixed methods research provides more evidence for studying a research problem than either quantitative or qualitative research alone” (p. 12). The approach consisted of collecting and analyzing scalable quantitative and qualitative data as well as written narrative qualitative responses from participants. Using both qualitative and quantitative approaches together allowed the researcher to effectively cross-examine and link participants’ quantifiable data to the collective narrative written response of participants’, providing rich descriptions of the study’s data. Because this study explored multiple sources for gathering data from a large sample of athletic training instructors, mixed-methods inquiry enhanced the validity of this study’s interpretations.

The primary tool for this study was a self-developed and pre-piloted electronic questionnaire that contained both open- and close-ended questions (Table 1). Each question within the questionnaire was specifically designed to explore the educational and lived

experiences that contributed to participants' perceived perception of teaching in an ATEP. The questionnaire also explored participants' fears and anxieties about teaching. Last, the questionnaire explored participants' perceptions of pedagogical training and its effect on preparedness to teach. Information gathered from each of these areas provided an in-depth look into the various factors that contributed to instructors' perceptions of their preparedness for teaching.

Table 1: Athletic Training Instructors' Questionnaire

1. *How many years have you been teaching within an Athletic Training Education Program?*
1-5, 6-10, 11-15, 16 and Above
2. *In your undergraduate or graduate experiences, were you required to take any courses in teaching methodology or pedagogy?*
Yes, No
3. *In your undergraduate or graduate experience, did you take any courses in teaching methodology or pedagogy?*
Yes, No
4. *What do you feel most prepared you for your current role/responsibility of teaching within an undergraduate program? How did this prepare you?*
5. *What courses in your undergraduate and/or graduate experience do you believe best prepared you for your current teaching role/responsibility? Why?*
6. *What aspects of your undergraduate and/or graduate athletic training experience do you believe best prepared you for your current teaching role/responsibility? How did these prepare you?*
7. *What were some of your greatest challenges during your first year teaching? Why?*
8. *What were some of your greatest successes during your first year/s of teaching?*
9. *In your undergraduate and graduate experiences, were there any instructors that influenced your current teaching style? In what ways do you model your teaching after them?*

10. *In your current role of teaching within an undergraduate program, what aspects of teaching did you feel underprepared for?*
11. *What were your greatest fears/anxieties going into your first year teaching? Why?*
12. *Aside from educational experiences, what other experiences have you had in your life that prepared you for your current teaching responsibility?*
13. *You felt competent to teach your first undergraduate course.
Strongly Agree, Agree, Disagree, Strongly Disagree*
14. *Your undergraduate experience prepared you to teach.
Strongly Agree, Agree, Disagree, Strongly Disagree*
15. *Your undergraduate clinical experience prepared you to teach.
Strongly Agree, Agree, Disagree, Strongly Disagree*
16. *Your graduate experiences prepared you to teach.
Strongly Agree, Agree, Disagree, Strongly Disagree*
17. *Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom.
Strongly Agree, Agree, Disagree, Strongly Disagree*
18. *Previous formal knowledge of teaching is important to becoming a more effective instructor.
Strongly Agree, Agree, Disagree, Strongly Disagree*
19. *All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor.
Strongly Agree, Agree, Disagree, Strongly Disagree*
20. *The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum.
Strongly Agree, Agree, Disagree, Strongly Disagree*

Many of the open-ended questions utilized within this questionnaire have been replicated from a previous six-month pilot study, conducted by this researcher. The questionnaire begins with previously piloted open-ended questions and ends with more direct close-ended questions. The purpose of prepiloting the questionnaire was to test each question's effectiveness for generating sufficient responses and ensure the instrument's readability and clarity. In addition,

the sequencing of questions was evaluated for its ability to limit the potential influence each question had on directing participants' subsequent responses. A prime example of this is questions 6 and 7 of Table 1. In this example, question 6 seeks information related to the educational experiences that have prepared athletic trainers to teach; whereas, question 7 explores participants' perceived fears and anxieties for teaching.

In addition to gathering meaningful data from athletic training instructors, this study also gathered the supplementary perspectives of athletic training program directors. A secondary close-ended questionnaire was developed to gain athletic training program directors' perceptions of the importance of pedagogical knowledge for teaching, as well as the need for pedagogy within athletic training education (Table 2). These questions were developed in collaboration with a current athletic training program director. Understanding the perspectives of both athletic training instructors and program directors provides a range of data from various athletic training educational vantage points, which better informs the study's research question.

Table 2: Athletic Training Program Directors' Questionnaire

1. *Knowledge of pedagogy is important to being an instructor within an athletic training education program.*
Strongly Agree, Agree, Disagree, Strongly Disagree
2. *Pedagogical preparation is necessary to becoming a successful instructor within an athletic training education program.*
Strongly Agree, Agree, Disagree, Strongly Disagree
3. *Teaching methodology should be implemented within athletic training graduate programs.*
Strongly Agree, Agree, Disagree, Strongly Disagree
4. *Aside from their other athletic training responsibilities, your athletic training staff also teaches within your athletic training education program.*
Yes, No
5. *What resources do you provide to your instructors to improve upon their pedagogical skills? (List)*

Participants

The main population for this research study was athletic training instructors, who both have and have not completed pedagogical coursework, and who are actively teaching within an accredited athletic training education program. Through the National Athletic Trainers' Association (NATA) research survey services, 3,800 athletic trainers who had indicated, in their NATA demographic profile, that they were an instructor for an ATEP were identified. However, it should be noted that the researcher was not provided with the identities of potential participants. Rather, the NATA only informed the researcher of the number of potential participants to ensure anonymity. Once this was established, and after approval was received from Lesley University's Institutional Review Board (IRB) panel and the researchers' dissertation committee, each of the 3,800 athletic training instructors was sent an e-mail link, through the NATA, to the study's research questionnaire. The research survey services of the NATA conducted the dissemination of the study's research questionnaire e-mail link to prospective participants. In collaboration with this researcher's dissertation committee, a minimum participant pool of 100 was decided upon for the purpose of collecting and producing generalizable results.

The participants' identities as well as their questionnaire results were completely anonymous and confidential. To ensure participant anonymity the IP (Internet Protocol) collection option (within survey monkey) for identifying individual's computers to the internet was disabled prior to the dissemination of the study's questionnaire. Furthermore, no distinguishing questions, such as name or place of employment, were asked of participants within the questionnaire to ascertain anonymity. In addition, this study followed all procedures consistent with those of the IRB at Lesley University to ensure the safety of the study's participants. Each participant received an informed consent form, which included a detailed

description of the intentions of the researcher and the study. While developing relationships between the researcher and participants is important to collecting rich data, researchers must be aware of the potential implications the relationship with their participants can have on the outcome and validity of a study. To avoid inferences related to power, bias, and influence, this research was an anonymous one-time survey design, utilizing the research survey e-mail dissemination services of the NATA and Survey Monkey to negate potential researcher–participant implications.

Two weeks after the study began, the participant pool exceeded the original goal of 100 participants, and topped at 444 participants. However, this sample was reassessed for increased accuracy, and participants who did not complete any of the study’s open- and close-ended questions, as well as participants who do not teach, were currently not teaching, or only “teach” as a clinical instructor were omitted. The total sample for this study was 364 participants. Furthermore, it should be noted that not all participants fully completed the study’s questionnaire. Despite not finishing the questionnaire, participants’ responses throughout the study were included in the final data analysis due to the rich detail and added value to the analysis of instructor perceptions of their preparedness for teaching in an ATEP. While participant attrition was a concern of this researcher, 251 participants successfully completed the study’s questionnaire in entirety. The remaining 113 participants contributed only to the study’s initial three demographic questions and open-ended questions.

Following the same process for identifying athletic training instructors, a second request for identifying athletic training program directors was sent to the NATA. With the help of the NATA and their databases, 368 program directors were identified. IRB approval was obtained from Lesley University prior to the dissemination of questionnaires to each identified athletic

training program director. Furthermore, each participant's identity, as well as their questionnaire results, was completely anonymous and confidential. Utilizing the same processes implemented for maintaining participating instructors anonymity, the IP collection option within survey monkey's survey collection options was disabled and no distinguishing questions, such as name or place of employment, were asked of participants within the questionnaire. In addition, each participant received an informed consent form, which included a detailed description of the intentions of the researcher and the study. With the assistance of the researcher's dissertation committee, a participant pool of 28–41 was chosen as an appropriate participant response goal for producing generalizable results for this portion of the dissertation study. Once again, the sample for this portion of the researcher's study exceeded its participant goal, reaching 49. However, six participants failed to complete any portion of the study and were omitted from the study's findings and analysis. Therefore, 43 program directors comprised the total sample for this study.

Data Collection and Analysis

The questionnaire was distributed through Survey Monkey. Three of the questions for the athletic training instructors were demographic, nine were open-ended, and eight were close-ended questions (Yes, No, and Strongly Agree, Agree, Disagree, Strongly Disagree). The questionnaire administered to athletic training program directors consisted of four close-ended questions (Yes, No, and Strongly Agree, Agree, Disagree, Strongly Disagree) and one open-ended listing question. Every question was designated as a required field in Survey Monkey, necessitating a response in order to continue within the questionnaire.

The primary tool used to analyze participants' open-ended questions was the Hyper RESEARCH qualitative data analysis program. All participants' open-ended responses were

uploaded into the Hyper RESEARCH program question by question, utilizing an iterative process and thematic framework for highlighting and coding key phrases and words into emerging themes (See Appendix A. Coding Samples) . Each emerging code and theme developed by the researcher was given descriptions and definitions by the researcher to ensure codes and themes were accurately designated. Once this was completed, codes and themes were then further assessed, collapsing similar codes and categories into broader headings or themes. This process was accomplished on three separate occasions until it appeared the categorization of data had become most accurate and exhausted.

In addition, two independent raters, with no other involvement in this study, further confirmed and improved the accuracy of the study's coded and themed material. The primary purpose of the raters was not to review each response or code within the study, but rather to assess the accuracy and consistency of coded responses from a sample to enhance the confidence of the data coded. Each rater met the following two criteria: He or she had no relationship or benefit to the study or its outcomes and possessed experience in research. Based upon these criteria, rater 1, a doctor of physical therapy with experience in conducting qualitative research, was selected. A second rater, with a graduate background in physical therapy and experience in quantitative and qualitative research, was selected.

To ensure each rater's understanding of interrater reliability, a preliminary interrater test was performed in order to familiarize the raters with the study, as well as to enhance consistency between raters. The preliminary test consisted of 10 coded responses from each of the study's questions. Once this was completed, each rater was supplied with the same random sample, consisting of 15% of the coded responses from each study's nine open-ended questions. In total,

354 coded responses were reviewed by each rater. It should also be noted that this sample did not include any responses from the preliminary test.

A random sample of 15% was chosen by the researcher to enhance the representation of each code within the study. Next, each rater was asked to indicate either agree or disagree with each coded response. When a rater disagreed, she was asked to provide feedback and suggestions as to why this particular code did not fit, as well as offer suggestions to where it may fit better within another code. Of the 354 responses reviewed, a total of 26 codes were labeled disagree. In each case, the rater agreed with the associated code, but suggested adding another code to the responses. For example, in reaction to one coded response (Table 3) rater 1 states: “Disagree – The codes you’ve assigned are appropriate, however it looks like you may have missed one. I think you should include “Learn as you go” from your code list. It would fit here as well.”

Table 3. Coded participant response

Codes	Participant response
Feedback, Peer support, Symposiums	"On the job experience, discussions with colleagues, and training sessions offered by the institution."

Each of the raters’ comments and suggestions were taken into consideration and were applied to the study.

At the close of the interraters’ testing, the collective agreement of coded responses between raters’ was 95%. This percentage was calculated from the individual responses marked disagree between raters. Rater 1 disagreed with 14 coded responses. This number was subtracted from the total responses reviewed (354) then was divided by 354 to give an agreement percentage of 94.4%. This process was repeated for rater 2, providing an agreement percentage of 95.2%. The percent agreements between rater’s 1 and 2 was then totaled and divided once again, giving a collective interrater agreement of 94.8% (rounded to 95%) for all responses

reviewed and coded. According to Miles and Huberman (1994), good qualitative research should achieve an interrater agreement of at least 80% or better demonstrating the reliability of data.

In addition, quantitative data from participants' responses to the questionnaire's close-ended questions were collected through Survey Monkey. The study's close-ended questions focused primarily on the perceived impact that various levels and experiences of athletic training education had on instructors' perceived preparedness to teach. The questions also focused on the perceived need for and importance of pedagogy within athletic training education. Each of the questions within the study's questionnaires for both athletic training instructors and program directors encompassed Likert responses ranging from strongly agree, agree, disagree, and strongly disagree. Through the Survey Monkey data analysis features, frequency statistics were developed and analyzed.

Assumptions and Bias

As a current athletic trainer and instructor within an athletic training program, I was very conscious of the potential influence my own perspectives could have on the interpretation of this study's data and presentation of its findings. I was also particularly aware of my graduate experience with pedagogical coursework and how that knowledge could influence my perceptions. Throughout this study, I discovered that I share many of the same experiences, feelings, and beliefs as the participants. However, I am confident that I limited my potential bias through several strategies. The first of these strategies included reading and rereading my coded data, while also scrutinizing responses, codes, and themes for their accuracy and consistency. Second, using two outside observers to evaluate coded material and themes for accuracy and consistency further augmented the reduction of the researcher's bias. Third, oral communications with peers, colleagues, and others with no relationship to the study allowed me to bracket my

assumptions, feelings, beliefs, and perspectives. Through these oral communications, I became better prepared to understand my perspective, from the multiple perspectives of others, allowing better bracketing. Bracketing allows researchers to set aside their investments, experiences, and assumptions for the purpose of viewing and conducting research more openly to multiple perspectives, rather than from one's individual influence (Fischer, 2009). Last, additional collaborative oral and electronic communications with the researcher's dissertation study committee provided forums for better understanding my research perspective, as well as discussing this study from multiple perspectives. In addition, these collaborative discussions provided opportunities to identify any potential flaws of the study, as well as identify any researcher bias.

Chapter IV

Results

Introduction

This chapter presents both the quantitative and qualitative data collected during the study. The following data consists of responses from athletic training instructors and athletic training program directors in response to a questionnaire. The primary intent of the questionnaire was to determine what athletic training instructors believe has prepared them to become an instructor within an athletic training education program (ATEP). All qualitative data collected was analyzed and coded into several recurrent themes. Quantitative data was also collected to provide further information about ATEP instructors' comments and coded themes. In addition, quantitative data was collected from ATEP program directors for cross analysis of their perspective on the importance of pedagogical knowledge and pedagogical training's impact on instructor preparedness and athletic training education. The questions guiding this research are:

- What are early professional athletic trainers' perceptions of their preparedness for teaching in an athletic training education program?
- What do athletic training instructors believe most prepared them for their current role as an athletic training education instructor?
- What do athletic training instructors believe they were less prepared for when beginning their role as an instructor within an athletic training education program?

This chapter is divided into four sections. The first section is an overview of the sample utilized for collecting the study's data. The second section is an analysis of the quantitative data collected from athletic training instructors for the purpose of cross analysis with the study's

qualitative coded themes. The third section (Qualitative Results) is an analysis of several questions that encompass the study's overarching question: What are early professional athletic trainers' perceptions of their preparedness for teaching in an undergraduate athletic training education program? This section is further subdivided into three subsections: What athletic training instructors believed most prepared them for teaching in an ATEP; what they felt unprepared for as well as their fears and anxieties while beginning in an ATEP; and lastly their perceived successes and professional growth. The last section of this is another quantitative data analysis from ATEP program directors' perceptions of the importance of pedagogy for athletic training instructors and within athletic training education.

Sample

Table 4 shows the number and percentage of athletic training instructors who were and were not required to take pedagogical coursework in undergraduate and graduate schooling (Vertical axis), cross-tabulated with participants' years of teaching experience in an ATEP (Horizontal axis). Similarly, table 5 shows the number and percentage of instructors who had taken some pedagogical coursework, required or not, in undergraduate and graduate schooling (Vertical axis), cross-tabulated with participants' years of teaching experience in an ATEP (Horizontal axis).

Table 4
Required Pedagogical Coursework

Instructors' Questionnaire					
In your undergraduate or graduate experiences, were you required to take any courses in teaching methodology or pedagogy?					
	How many years have you been teaching within an Athletic Training Education Program?				
Answer Options	1-5	6-10	11-15	16 or Over	Response Totals
Yes	58 (32.4%)	32 (41%)	27 (51.9%)	40 (72.7%)	157 (43.1%)
No	121 (67.6%)	46 (59%)	25 (48.1%)	15 (27.3%)	207 (56.9%)
Answered question					364

Table 5
Required or Non-Required Pedagogical Coursework

Instructors' Questionnaire					
In your undergraduate or graduate experience, did you take any courses in teaching methodology or pedagogy?					
	How many years have you been teaching within an Athletic Training Education Program?				
Answer Options	1-5	6-10	11-15	16 or Over	Response Totals
Yes	77 (43%)	46 (59%)	33 (63.5%)	45 (81.8%)	201 (55.2%)
No	102 (57%)	32 (41%)	19 (36.5%)	10 (18.2%)	163 (44.8%)
Answered question					364

Quantitative Questionnaire Results (Instructors)

This section summarizes the quantitative data collected from athletic training instructors.

A total of 251 participants completed each close-ended question of this study. Within the study's questionnaire, eight close-ended questions were used to further assess athletic training instructors' perceived preparedness for teaching in an ATEP, as well as to analyze their attitudes and beliefs related to pedagogy and its importance to instructor preparation. In an effort to discover more about instructors' perceived preparedness, specific areas of athletic training

education were cross-tabulated with results from instructors' perceived competency to teach their first undergraduate course. This section will provide frequency statistics for each of the study's questions. The following are the close-ended questions utilized within the administered instructor questionnaire.

1. You felt competent to teach your first undergraduate course.
2. Your undergraduate experience prepared you to teach.
3. Your undergraduate clinical experience prepared you to teach.
4. Your graduate experiences prepared you to teach.
5. Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom.
6. Previous formal knowledge of teaching is important to becoming a more effective instructor.
7. All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor.
8. The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum.

Question 1: You felt competent to teach your first undergraduate course.

In response to question 1, 84.8% of the participants either agreed or strongly agreed that they felt competent to teach their first course. Of the 84.8%, participants who selected agree comprised 64.9% of the total. In addition, 13.9% and 1.2% of the study's participants either indicated disagree or strongly disagree. The results are displayed in Table 6.

Table 6

You felt competent to teach your first undergraduate course.

Instructors' Questionnaire		
1. You felt competent to teach your first undergraduate course.		
Answer Options	Response Percent	Response Count
Strongly Agree	19.9%	50
Agree	64.9%	163
Disagree	13.9%	35
Strongly Disagree	1.2%	3
Answered question		251

Question 2: Your undergraduate experience prepared you to teach.

Results from question 2 reflected participants' perceptions of their undergraduate experience and its impact on their preparation to teach for an ATEP. Based on the data collected, participants were divided in their perceptions. Almost half (48.2%) of participants either agreed or strongly agreed that their undergraduate experience prepared them to teach, while 51.8% disagreed or disagreed strongly that their undergraduate experience was impactful. These results indicate that undergraduate experiences are not significant to the perceived preparedness of the total group. These results are shown in Table 7.

Table 7

Your undergraduate experience prepared you to teach.

Instructors' Questionnaire		
2. Your undergraduate experience prepared you to teach.		
Answer Options	Response Percent	Response Count
Strongly Agree	10.4%	26
Agree	37.8%	95
Disagree	41.4%	104
Strongly Disagree	10.4%	26
Answered question		251

In addition to analyzing the results of undergraduate experience and whether it prepares instructors for teaching, this data was also cross-tabulated across the results collected to

instructors' perceived competency to teach in their first year. Of the 213 participants who indicated strongly agree or agree with regards to their perceived competence to teach in their first year (Table 6), 46% of those participants disagreed that their undergraduate experience prepared them to teach. These results indicate that there was no significant relationship between instructors' perceived competence and their undergraduate experiences for preparing them to teach. Table 8 provides further evidence.

Table 8

Your undergraduate experience prepared you to teach. Cross-Tabulation

Your undergraduate experience prepared you to teach					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	28% (14)	7.4% (12)	0% (0)	0% (0)	10.4% (26)
Agree	42% (21)	41.7% (68)	17.1% (6)	0% (0)	37.8% (95)
Disagree	22% (11)	45.4% (74)	51.4% (18)	33.3% (1)	41.4% (104)
Strongly Disagree	8% (4)	5.5% (9)	31.4% (11)	66.7% (2)	10.4% (26)
Answered Question	50	163	35	3	251

Question 3. Your undergraduate clinical experience prepared you to teach.

Results from question 3 reflect participant perceptions of their undergraduate clinical experience and its impact on the preparation for teaching in an ATEP. Of the responses collected, clinical experience does not appear to be a significant indicator impacting instructor perceptions for teaching. Although 56.9% of participants indicated agree or agree strongly, the remainder of participants (43.1%) disagreed or felt it had less of an effect on their feeling of being prepared. Despite this data, clinical experience had 8.7% more positive responses for its preparation to teach than instructor perceptions of their undergraduate experience. However,

these results continue to demonstrate no significance. Table 9 provides further explanation of the data collected.

Table 9

Your undergraduate clinical experience prepared you to teach.

Instructors' Questionnaire		
3. Your undergraduate clinical experience prepared you to teach.		
Answer Options	Response Percent	Response Count
Strongly Agree	15.5%	39
Agree	41.4%	104
Disagree	35.5%	89
Strongly Disagree	7.6%	19
Answered question		251

In addition, instructors' perceptions of their clinical experience and its impact on preparation for teaching was also cross-tabulated across instructors' perceived competence for teaching in an ATEP during their first year. Of the 213 participants who felt competent, agree or strongly agree, to teach in their first year (Table 3), 61.9% of those participants also agreed or strongly agreed that their clinical experience was a form of preparation or contributing factor influencing their perceived preparedness for teaching in an ATEP. Table 10 further describes this data.

Table 10

Your undergraduate clinical experience prepared you to teach. Cross-Tabulation

Your undergraduate clinical experience prepared you to teach					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	32% (16)	13.5% (22)	2.9% (1)	0% (0)	15.5% (39)
Agree	38% (19)	46% (75)	25.7% (9)	33.3% (1)	41.4% (104)
Disagree	26% (13)	33.7% (55)	57.1% (20)	33.3% (1)	35.5% (89)
Strongly Disagree	4% (2)	6.7% (11)	14.3% (5)	33.3% (1)	7.6% (19)
Answered Question	50	163	35	3	251

Question 4. Your graduate experiences prepared you to teach.

Results from question 4 reflect instructor perceptions of their graduate experiences and the influence on their perceived preparedness for teaching in an ATEP. Upon analyzing this data, it appears that instructors' graduate experiences had a higher impact on their perceived preparedness than their undergraduate experience and clinical experience. Over three-quarters (84.1%) of the responses indicated either agree or strongly agree that their graduate experiences were influential to their perception of preparedness for teaching in an ATEP (Table 11).

In addition to analyzing instructor perceptions of their graduate experience and the influence on their preparedness for teaching, this data was also cross-tabulated with the perceived competence in their teaching abilities during their first year in an ATEP. Of the 213 participants who responded positively, agree or strongly agree (Table 6), in regards to their competence to teach during their first year, 88.2% of those participants also agreed or strongly agreed that their graduate experience was influential to their perceived preparedness for teaching in an ATEP. Table 12 further details this cross-tabulated data.

Table 11

Your graduate experiences prepared you to teach.

Instructors' Questionnaire		
4. Your graduate experiences prepared you to teach.		
Answer Options	Response Percent	Response Count
Strongly Agree	31.1%	78
Agree	53%	133
Disagree	13.9%	35
Strongly Disagree	2%	5
Answered question		251

Table 12

Your graduate experiences prepared you to teach. Cross-Tabulation

Your graduate experiences prepared you to teach					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	56% (28)	27.6% (45)	14.3% (5)	0% (0)	31.1% (78)
Agree	36% (18)	59.5% (97)	51.4% (18)	0% (0)	53% (133)
Disagree	4% (2)	11.7% (19)	31.4% (11)	100% (3)	13.9% (35)
Strongly Disagree	4% (2)	1.2% (2)	2.9% (1)	0% (0)	2% (5)
Answered Question	50	163	35	3	251

Question 5. Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom.

Results from question 5 reflected instructor perceptions of the impact of Approved

Clinical Instructor (ACI) seminars on the preparation of athletic trainers for teaching in the classroom. Two-hundred-fifty-one instructors successfully completed this question. While 55% of the participants indicated a positive response, agree or strongly agree, 45% of the participants did not responded or responded disagree or strongly disagree. Although more participants believe that ACI seminars have an impact on teacher preparation, there does not appear to be a

large enough discrepancy between the two groups to indicate it has a significant impact. Table 13 shows this question's data.

Table 13

Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom.

Instructors' Questionnaire		
5. Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom.		
Answer Options	Response Percent	Response Count
Strongly Agree	12.4%	31
Agree	42.6%	107
Disagree	37.8%	95
Strongly Disagree	7.2%	18
Answered question		251

In addition, instructor perceptions of the impact of ACI seminars on the preparation of athletic trainers for teaching was cross-tabulated with instructors perceived competence for teaching in an ATEP. Again, of the 219 participants who responded positively, agree or strongly agree, regarding their perceived competence (Table 6), 56% also believed ACI seminars to be influential in their preparation for teaching. Although more than half of the participants perceived themselves as being competent to teach in their first year, there is not enough evidence to significantly support ACI seminars' effectiveness for preparing someone to teach in an ATEP. Table 14 demonstrates the cross-tabulated data more fully.

Table 14

Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom. Cross-Tabulation

Approved Clinical Instructor (ACI) seminars have an impact on preparing athletic trainers to teach within the classroom.					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	20% (10)	12.3% (20)	2.9% (1)	0% (0)	12.4% (31)
Agree	38% (19)	44.2% (72)	40% (14)	66.7% (2)	42.6% (107)
Disagree	30% (15)	39.9% (65)	40% (14)	33.3% (1)	37.8% (95)
Strongly Disagree	12% (6)	3.7% (6)	17.1% (6)	0% (0)	7.2% (18)
Answered Question	50	163	35	3	251

Question 6. Previous formal knowledge of teaching is important to becoming a more effective instructor.

Results from question 6 reflected participant perceptions of prior formal teaching knowledge and its effect on teacher preparedness. Nearly two-thirds or 72.9% of the participants who completed this question answered positively, agree or strongly agree, while the remaining 27.1% disagreed. Table 15 displays this data in further detail.

Table 15

Previous formal knowledge of teaching is important to becoming a more effective instructor.

Instructors' Questionnaire		
6. Previous formal knowledge of teaching is important to becoming a more effective instructor.		
Answer Options	Response Percent	Response Count
Strongly Agree	25.9%	65
Agree	47%	118
Disagree	23.9%	60
Strongly Disagree	3.2%	8
Answered question		251

In addition, instructor perceptions of previous formal teaching knowledge and its effect on instructor preparedness was cross-tabulated with the data collected about their perceived competence to teach during their first year. Again, nearly two-thirds or 70.8% of the participants who perceived themselves as competent to teach for an ATEP in their first year (Table 6) either agreed or strongly agreed that previous formal knowledge of teaching is important to becoming a more effective instructor. Table 16 details these results more specifically.

Table 16

*Previous formal knowledge of teaching is important to becoming a more effective instructor.
Cross-Tabulation*

Previous formal knowledge of teaching is important to becoming a more effective instructor.					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	30% (15)	25.8% (42)	17.1% (6)	66.7% (2)	25.9% (65)
Agree	40% (20)	45.4% (74)	65.7% (23)	33.3% (1)	47% (118)
Disagree	28% (14)	26.4% (43)	8.6% (3)	0% (0)	23.9% (60)
Strongly Disagree	2% (1)	2.5% (4)	8.6% (3)	0% (0)	3.2% (8)
Answered Question	50	163	35	3	251

Question 7. All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor.

Results from question 7 reflect participant perceptions on the importance of having previous coursework in teaching methodology/pedagogy prior to becoming an instructor for an ATEP. Similar to many instructor beliefs regarding the impact of formal knowledge on instructor effectiveness, 65.7% of participants also considered previous teaching methodology/pedagogical coursework to be beneficial for all new ATEP instructors prior to becoming an instructor. Table 17 depicts this data in greater detail.

Table 17

All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor.

Instructors' Questionnaire		
7. All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor.		
Answer Options	Response Percent	Response Count
Strongly Agree	20.3%	51
Agree	45.4%	114
Disagree	31.1%	78
Strongly Disagree	3.2%	8
Answered question		251

Moreover, participants' beliefs regarding the necessity for new instructors to possess previous coursework in teaching methodology prior to becoming an instructor were cross-tabulated with their perceived competence to teach in an ATEP during their first year (Table 6). Over half (64.3%) of participants who perceived themselves to be competent in their first year by answering agree or strongly agree also believed that all new instructors should have had coursework in teaching methodology prior to becoming an instructor. However, 73.6% of the participants who did not perceive themselves as competent, answering disagree or disagree strongly, also agreed or agreed strongly that all new instructors should have had previous coursework in teaching methodology prior to becoming an instructor. This data is further detailed in Table 18.

Table 18

All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor. Cross-Tabulation

All new instructors should have had previous coursework in teaching methodology prior to becoming an instructor					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	30% (15)	17.2% (28)	20% (7)	33.3% (1)	20.3% (51)
Agree	32% (16)	47.9% (78)	51.4% (18)	66.7% (2)	45.4% (114)
Disagree	36% (18)	30.7% (50)	28.6% (10)	0% (0)	31.1% (78)
Strongly Disagree	2% (1)	4.3% (7)	0% (0)	0% (0)	3.2% (8)
Answered Question	50	163	35	3	251

Question 8. The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum.

Results from question 8 reflect athletic training instructors' attitudes about incorporating teaching methodology within athletic training education. Of the 251 participants who completed this questionnaire, 60.5% believe that formal teaching methodology preparation should be incorporated in some fashion with athletic training education. However, this may be an area which needs further exploration, as the remaining 39.5% of participants did not agree that teaching methodology coursework in athletic training is necessary (Table 19).

Instructor attitudes regarding teaching methodology and its place within athletic training were also cross-tabulated with the data of instructors' perceived competence to teach in their first year (Table 20). Of the participants who perceived themselves to be competent to teach by answering agree or strongly agree (Table 6), 59.6% of those participants believe teaching methodology should be incorporated with athletic training education. Contrary to those who perceived themselves to be competent, 65.7% of those who felt less competent, answering disagree or disagree strongly, also believed that teaching methodology is important to

incorporate within athletic training education. However, it should also be noted that 40.4% and 34.2% of the participants who responded both positively, agree/strongly agree, and negatively, disagree/strongly disagree, did not believe teaching methodology should be implemented within athletic training education. Table 20 provides further display of the cross-tabulated data.

Table 19

The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum.

Instructors' Questionnaire		
8. The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum.		
Answer Options	Response Percent	Response Count
Strongly Agree	15.5%	39
Agree	45%	113
Disagree	31.1%	78
Strongly Disagree	8.4%	21
Answered question		251

Table 20

The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum. Cross Tabulation

The profession of athletic training should incorporate teaching methodology within its undergraduate or graduate curriculum.					
	You felt competent to teach your first undergraduate course				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Response Totals
Strongly Agree	30% (15)	11.7% (19)	11.4% (4)	33.3% (1)	15.5% (39)
Agree	40% (20)	44.8% (73)	54.3% (19)	33.3% (1)	45% (113)
Disagree	22% (11)	35.6% (58)	22.9% (8)	33.3% (1)	31.1% (78)
Strongly Disagree	8% (4)	8% (13)	11.4% (4)	0% (0)	8.4% (21)
Answered Question	50	163	35	3	251

Qualitative Results

The following results represent the responses gathered from athletic training instructors with regards to their perceived preparedness and preparation for teaching within an ATEP. While both open- and close-ended questions were the primary sources of information of this study, the following section only represents the qualitative results from athletic training instructors. This section is divided into three sub-sections: Sub-section I: Prepared for teaching for an ATEP, Sub-section II: Unprepared for and anxieties about teaching, Sub-section III: Successes and growth. Nine questions had open-ended, qualitative responses from participants. During the analysis of participant responses, the study's open-ended questions were grouped according to relevance to aid in the coding and theme processes. These groupings consisted of assigning the study's questions into three categories: preparation, unprepared for and anxieties, and professional growth and successes. It should also be noted that these groupings were not exclusive, meaning codes that arose from each question were not entirely bound to their particular subsection. Some codes overlapped between subsections or question.

Subsection I: Prepared for teaching for an ATEP.

The following open-ended questions all address what athletic training instructors believe prepared them to teach within an ATEP. From the data collected several themes and subcategories emerged. The primary themes were experience, education, and influences.

- What do you feel most prepared you for your current role/responsibility of teaching within an undergraduate program? How did this prepare you?
- What courses in your undergraduate and/or graduate experience do you believe best prepared you for your current teaching role/responsibility? Why?

- What aspects of your undergraduate and/or graduate athletic training experience do you believe best prepared you for your current teaching role/responsibility? How did these prepare you?
- In your undergraduate and graduate experiences, were there any instructors that influenced your current teaching style? In what ways do you model your teaching after them?
- Aside from educational experiences, what other experiences have you had in your life that prepared you for your current teaching responsibility?

Experience. The most obvious theme that emerged from the responses was experience. The impact of experience on instructors' perceived preparedness for teaching and its resourcefulness while teaching was broken down further into several categories. These categories are informal athletic training experience, formal athletic training education, informal pedagogical experience, formal pedagogical education, and life experience.

Athletic training experience. Across the study's qualitative questions, athletic training field experience appeared in 226 different responses (169 participants) as something that prepared them to teach within an ATEP. Most participants mentioned that their athletic training field experience provided relevant real world examples to better inform and relate their classroom material to students. "I have been very fortunate to have a plethora of professional and clinical experiences—35 years worth—to bring relevance to my teaching material." Another instructor expressed how previous athletic training field experiences helped bring content into context:

My clinical experience best prepared me for what I do today. I really value the use of case studies and practical applications in class. You need to be able to bring in a recent real life situation to make a concept come alive.

In response to the question of what prepared them for their current role as an instructor in an ATEP, another instructor stated:

I feel my experiences out in the field of athletic training have prepared me the most. I am able to not only deliver information from a textbook, but also include personal experiences with it. We all know that athletic training is an out of the box profession where what we learn in the textbooks, although good information, is ever changing and can even differ from situation to situation. The ability to give my students real life examples provides them the best well-rounded education possible.

Experience within the field provided instructors with invaluable knowledge, which can be used to bring further depth to their teaching strategies in the classroom. Several other examples of the influence of athletic training field experiences on instructors' perceived preparedness to teach include:

I think working in the athletic training room and not just working in academics helps me to prepare for teaching. I think that too often athletic training instructors forget what it is like to be an athletic trainer and the day to day operations of the athletic training room. It helps to have experiences of the athletic training room to tell students about so they can see how what they learn in the classroom relates into the everyday athletic training room operations.

Having clinical experience. I believe clinical experience is essential when teaching undergraduate students. Someone who only teaches without the benefit of clinical, is not able to fully communicate information to students

Experiences as a clinician aided in preparing me to provide practical experiences for students in the classroom to transgress the didactic information into practical realities.

My extensive clinical experience has translated into relatable real world examples of presentations of pathologies and conditions that most educating athletic trainers don't get the opportunity to see.

My experiences. How could I possibly describe effects of therapeutic interventions and evaluation techniques in cases without my experience as an ATC. My stories help illustrate these things for the students.

Having clinical responsibilities gave me the opportunity to share my experiences with my students. I do a lot of problem-based scenario learning and many of my scenarios are from my own experiences.

As a result of practical experience, instructors believed that they were better able to teach and convey practical skills to their students. “Working in the profession gave me the ability to teach practical knowledge to the students. Clinical experiences helped me to prepare students for what to expect in the actual settings,” said one instructor. Other instructors agreed that their practical experience provided them with the opportunity to see first hand the knowledge and skills vital for prospective professionals in the field to know and learn. Another participant similarly stated:

I think just being in the clinical setting for 2+ years kinda helped to weed out what information was important and useful and what wasn't. That way I could teach them in a way that they could practically apply what they had learned, in the clinical setting.

While most instructors indicated that experience in the field provided them with classroom strategies, others spoke about how field experience also enhanced their classroom confidence and credibility to students. Some of these comments are as follows:

Field experiences helped a lot so I am able to speak with confidence to my class because I have gone through many of the things that I teach them. I worked summer camps with the USFHA and Cramer, Inc. Having been a practicing clinician at both the high school and collegiate levels was helpful when I was later able to develop a CAAHPE/CAATE program and serve for 10 years as its PD. I knew what the practicing athletic trainer needed to know.

I have over ten years experience in athletic training. I feel like I have a better understanding, confidence, and ability to teach now, than I would have directly out of school.

My clinical work prior to teaching lends credibility to my status as an effective instructor. I can ""do it"" as well as ""teach it"".

Clinical experiences... the more I have experienced as far as evaluation, treatment, rehabilitation greatly enhances what I can tell the students and also gives me instant credibility because I am not just talking about injuries from a book. I have experience dealing with these injuries.

In addition, many instructors also described the clinical and field environment as an informal classroom, where they educated athletes, coaches, parents, and clinical education students on injury prevention, healing processes, and treatment plans. For many, the teaching that is inherent within the field environment provided them with skills to be later transferred to the formal classroom.

Being an athletic trainer you have teaching kind of built into your profession. We're constantly educating athlete about how to prevent injury or what to do after they've sustained injuries. Translating that into a class lecture just takes preparation.

Being an athletic trainer, you are a teacher as well. You are educating an athlete about their injury, communicating w/ a parent, coach. Being prepared is something you have to be if you wish to be a good teacher, same thing holds true for being a good athletic trainer, being prepared. Many transferrable schools overlap the two positions.

What most prepared me for teaching was my life experiences as an AT - speaking and teaching to athletes/parents/coaches about injuries and teaching my former work-study student athletic trainers (in the athletic training room pre- ATEP) about duties I would allow them to do.

My clinical hours best prepared me. You must talk to athletes, coaches, and possibly parents about the student-athletes injuries. You become a teacher about an injury without even realizing it."

I feel teaching is what athletic trainers' do on a daily basis when we are educating our athletes on injuries. Also, teaching our students in the clinical setting in similar to the classroom.

Formal athletic training education. Another factor influencing instructors' perceived preparedness was their educational background, both in athletic training and education. There were 186 responses (127 participants) that named athletic training education as a significant factor in perceived preparedness of ATEP instructors for teaching. Statements attributed perceived preparedness from general athletic training content coursework to specific courses. It should be noted that within the study's questionnaire there was a specific question related to which specific coursework in undergraduate and or graduate school best prepared these participants for their current roles. The following results are divided into two parts. The first part is comprised of the influence of athletic training education, and the second part consists of the influence of pedagogical education on the perceived preparation for these instructors teaching in an ATEP.

Athletic training education. For many instructors (67), their educational background in athletic training content provided them with the framework and foundation of knowledge to teach to students. Having gone through an athletic training curriculum prepared instructors with the content knowledge for the courses they now teach. One participant commented in response to what has prepared them for teaching in an ATEP as, "learning the content, if you do not know the material you cannot teach it." Another instructor commented, "Having taken the courses in my undergraduate program that I currently teach and having read the textbooks has helped prepare for teaching." One other instructor stated:

All of my courses specific to the major, not general education, played a role in preparing me. I am teaching modalities, therapeutic exercises, exercise physiology lab, intro to sports medicine, practicum in athletic training, so all courses that are athletic training based/specific.

Similarly, other instructors spoke to their experiences in graduate school as building upon and strengthening their foundational knowledge, thus aiding in their perceived preparation for teaching.

The graduate work created the framework and knowledge I needed to be a successful educator and my clinical experience has given me the hands-on knowledge to be able to pass along to my students.

I believe graduate education was the most beneficial. It built on everything I learned in undergraduate, and gave me a more detailed, in depth, and advanced knowledge of the undergraduate curriculum.

While many participants commented on their general athletic training education and/or experience as influencing their perceived preparation for teaching in an ATEP, others were more specific. Several instructors identified specific courses they believed to be instrumental in their preparation as an instructor. Of the more noteworthy courses mentioned by 70 instructors were therapeutic exercise and clinical education. Other courses mentioned included anatomy and physiology (13), research methods (14), athletic training administration (12), and introduction to athletic training (12). These courses appeared to be the influential to these instructors' development of content knowledge and confidence to teach evidence-based theory. Aside from providing these instructors with foundational knowledge, these courses also provided instructors with a format for their current course designs as well as a model for their teaching and communication styles and strategies. Some comments specific to the courses mentioned above are as follows:

Modalities and Rehabilitation: In depth approach to treating injuries. I am now able to help students think outside the box and use the resources available to them.

Upper and Lower Body Evaluation courses. Gave idea of systematic why to approach teaching topics.

Upper and lower extremity classes as an undergrad and helping teach lower extremity in grad school. I now model classes after the way I was taught and how others have taught these classes.

I think all of my clinical classes helped me the most. I was able to see my supervisors relate to patients and demonstrate how to communicate and educate the patients.

Human anatomy. This course “forced” me to work hard and the instructor had a profound effect on me as a student and later as an instructor in the college setting. I now mimic that instructor in the way I teach.

Pedagogical education. Three questions reflected on what instructors believed most prepared them for their current roles and, more specifically, which courses and aspects of their undergraduate and graduate experiences best prepared them for their current instructor roles. Pedagogy was the theme that emerged from 194 responses (133 participants). Participants discussed how their pedagogical training and coursework enhanced their development and understanding of teaching within an ATEP including teaching strategies and teaching organization/preparation. Additionally, several responses ($n = 81$) also included discussion and reference to the significance of obtaining an advanced degree and/or a post-baccalaureate or secondary degree in education alongside a degree in athletic training.

Pedagogy. While investigating the perceived preparedness of instructors for teaching in an ATEP, one assumption was that only a small number of participants would possess a formal background in pedagogy. However, the abundance of instructors who participated in this study and who have a background in formal pedagogical coursework (56.5%) proved this wrong. Instructors’ experience with pedagogy resulted in one of the more significant codes recorded; instructors held their education in pedagogy as an instrumental factor influencing their perceived

preparedness for teaching. One instructor stated, "I believe taking the Education Psychology, Curriculum & Instruction, Student Development and Education Theory and Policy classes have provided me with a foundation of knowledge that has prepared me more holistically to be a better teacher." Pedagogical training and coursework was not a formality to becoming a teacher, but essential to their development and knowledge of teaching and teaching strategies. Another instructor simply stated, "Taking courses in pedagogy advanced my teaching skills immensely." Another participant stated, "Honestly, the only thing that prepared me were the pedagogy courses that I have taken as part of my doctoral work."

Pedagogy and knowledge of pedagogy was also significant to these instructors' development and understanding of teaching strategies, student learning styles, teaching style and delivery methods, and teaching organization, preparation, and planning. Examples of these influences include:

I do believe both my undergraduate and doctoral educational pedagogy courses help me be a more effective instructor but also provides me with a better understanding of curriculum development and progression.

In my graduate work, courses on the foundations of knowledge, curriculum development and foundations of teaching and learning have been key to my growth as an instructor.

Counseling Theories (graduate) because it teaches one how to deal with different personalities and how to break a person down to build them back up. In teaching you have to know to reach people.

My graduate coursework all was focused on education and the student learner. This enabled me to transfer my coursework practically into my classroom.

Teaching strategies in higher education- it was a doctoral course/seminar that I took- I had to video tape my teaching, develop a teaching portfolio and we read several books about teaching strategies; another course was a seminar format which focused on active learning strategies in the classroom-- these two classes helped the most because I was able to hear how other people were using different strategies in the classroom (none of

these people even had a clue about athletic training), but I was able to learn those strategies and bring them back to athletic training.

All of my Psychology courses, plus my principles of teaching class. Understanding how people think and learn is paramount to being able to teach.

Andragogy, Pedagogy, Higher Education, Educational Leadership, Curriculum Design, Educational Design Models, Educational Methodology. These courses advanced my understanding of education, providing educational experiences, assessment and global perspective on addressing needs of diverse students.

Educational degree. Another discovery, in conjunction with the vast pedagogical course experience had by these instructors, was the number of instructors that had a degree in education. While indicating their degree held was not a demographic requirement of this study, 81 participants indicated, through their responses, that they either possess an advanced degree, such as a PhD or Ed.D, a Masters Degree in education, or a dual undergraduate degree in athletic training and education. In each case, these degrees were an important factor influencing the perceived preparedness for teaching in an ATEP. Through obtaining educationally relevant degrees, instructors enhanced understanding of teaching dynamics and expanded their pedagogical knowledge, thus improving their teaching preparedness. Examples of participants' responses include:

I do believe that earning my doctorate in Education: Teaching and Learning really helped me with assessment and evaluation of learning. I don't believe I had enough knowledge in this area prior to earning my doctorate (so when I first began teaching I was not as skilled in this area).

My double undergrad degrees in teaching and AT. AT provided me with the AT content knowledge and my teaching degree prepared me for the actual teaching experience.

My Doctorate was in Education and this allowed me to enhance and improve on pedagogical techniques and update them from when I learned educational theory in undergrad.

Teaching course taken in my doctoral program. It really tied together how young adults learn and looked at learning styles, teaching styles, etc.

The course work in my Ed.D program definitely expanded my intellect, but more importantly I gained extensive experience with communication

My doctoral work with curriculum and instruction. This allowed me to understand teaching and various strategies with different students.

Formal pedagogical experience. Following the same trend as the previous two codes, pedagogy and educational degrees, both formal and informal pedagogical experience also played a significant role influencing the perceived preparedness for teaching in an ATEP by instructors. Formal experience was a major contributing factor influencing instructor preparedness according to 197 responses (136 participants). Within this code, instructors discussed how experience as an instructor and a teacher's assistant (TA) provided them with the opportunity to learn first hand the intricacies of teaching and be able to grow as an instructor.

Mentored teaching. Being a TA prior to becoming an instructor within an ATEP allowed 89 instructors to gain an early experience teaching, thus lessening anxiety for being fully responsible for student learning and development. For 75 instructors, the comfort of knowing their immediate supervisor or teaching mentor was there to provide support and feedback was paramount to their perceived preparedness to teach. One instructor states, "Being allowed to teach as a graduate assistant and being guided by my mentor on course development. It allowed me to experience teaching, but with guidance." Another instructor echoed the previous comment by stating, "I taught within the undergraduate and graduate program as a teaching assistant for 4 years. I was evaluated like any other professor, so I was able to receive feedback. Based on feedback from students, I feel that I improved each year."

The mentorship and support provided during these participants' early experiences as a TA were highly valued during their first few years as an instructor as well. During their

transition from being a TA to an instructor within an ATEP, participants often sought out the assistance and guidance of their peers to enhance their preparedness and preparation in the classroom. One instructor states, “Mentoring from other instructors. It provided me the resources to begin structuring my courses and got me started teaching.” Similarly, participants also described how they appreciated peer support and how it assisted with their understanding and preparedness for various aspects of teaching. One participant stated, “Mentors helped me. They showed me what they had done and helped guide me through the teaching process. It helped me know what content needed to be covered and gave me a timely fashion to cover the material.” Another stated, “I think that having a mentor and directed experiences with evaluating and understanding effective teaching when I first started to teach was most helpful.”

Feedback and support were not the only factors influencing perceived preparedness for teaching. Participants viewed their teaching assistant experience as an opportunity to quickly apply what they had learned about pedagogy to the immediate classroom. One instructor went on to say, “My student-teaching was invaluable, as it was the first time I was asked to take the skills learned in class and apply them in the classroom.” Instructors also found that their TA experience enhanced their self-confidence and pedagogical skills, making the transition from student to ATEP instructor easier.

As a graduate student I was required to teach First Aid/CPR to all freshmen undergrads who were required to take the course at the university. Teaching in graduate school helped me to gain confidence needed to teach once I accepted a full time position as an athletic trainer.

During graduate school I was required to teach several classes to undergraduate students and this prepared me to teach by getting me used to being in front of students and fielding their questions.

While in grad school, I was a TA for an undergraduate athletic training class. The supervising professor was very helpful in teaching me some of his techniques. Those

experiences helped me realize that there is more to teaching than just giving the students the information, you must make sure they understand it and can critically think through a problem using that given information.

Informal pedagogical experience. Some instructors believed they lacked pedagogical training to begin teaching. These instructors (47) attributed their teacher development to learning by trial and error or on-the-job training. This form of learning to teach, on the job, required participants to take an active role in their development as an instructor. One instructor described this self-directed learning experience as the “jump in the fire routine.” As another instructor put it, “The more I taught, the more I learned and the better prepared I became.” Another participant stated “Nothing prepared me for my teaching roles – I had to figure out classroom management & pedagogy on my own while doing it in the field. I chose to educate myself on how to be an educator.” Or, “I was thrown into the teaching realm unprepared, just like most educators.” Others viewed their preparation of teaching more as a positive challenge, “I feel experience teaching prepared me the most. I feel it prepared me because you only know if you can do something if you can actually do it.”

Despite some instructor feelings of unpreparedness when beginning teaching, 65 participants recognized their student-to-student mentoring experiences as an important factor in their development as an instructor. The mentoring relationships had by these participants provided early informal teaching experience, allowing great opportunity to develop knowledge and strategies for teaching and learning. One participant stated, “As a student and a graduate, having to mentor younger athletic training students. It gave me an idea of how to get my ideas across to others to have them learn.” Similarly, another participant states, “Informal mentoring and volunteer teaching gave me the insight and practice to speak in front of a group and learn how to structure a course.” Other participant examples include:

In my undergrad we had an athletic training student mentor program where the older students helped the younger students with their studying. Being able to learn early on how to teach through the mentorship program most prepared me for my current mentorship role.

The only thing in my athletic training program that prepared me to teach was helping to mentor the younger students in the program.

Our mentor program in my undergraduate program allowed me to start developing my teaching skills as we would go over proficiencies with our younger students. Also, I spent a lot of time in my classes working with fellow classmates who were struggling with the material. It gave me experience in finding different ways for different people to understand the same concept.

The nature of our ATEP education prepares you to teach. At all levels past my first year I was a mentor for younger students.

Helping to teach underclassmen how to do things in the athletic training room, helped to develop common sense approaches to instruction

Experience as a learner. The last factor influencing instructors' perceived preparation for teaching in an ATEP was their experience as a learner. For the purposes here, learner does not solely imply being a student; rather, it describes the learning experiences of these instructors while teaching, observing life, as well as being a student learner and observer of education. Through these experiences, it became evident that there are several influences that have impacted the perceived preparedness of these instructors for teaching in an ATEP.

The first factor that ATEP instructors believed contributed to their preparation as an ATEP instructor was their observation of and experiences with previous instructors, both as a student and as an instructor. Across five questions, 495 participant responses (238 participants) described whom, how, and why their observations of previous instructors affected their preparation and preparedness for teaching in an ATEP. Observing how others taught, for most instructors surveyed, became one of the earliest moments when these instructors developed their

teaching style for the future. Through these experiences, instructors were able to decipher what they believed to be successful and not so successful teaching lessons, as well as to observe styles of teaching they believed to be both positive and negative. One participant stated “I had a very good group of professors in undergrad and grad school. I take most of my teaching techniques from how they taught their classes.” From these experiences it became evident that participants began to develop who they wanted to become as a prospective instructor within an ATEP. Participants’ student observations served to inform their future identities as an instructor.

I was most influenced by a professor I had in high school, but each instructor I had either taught me how I wanted to teach or how I did not want to teach. I take a combination of things they did and put them together to see what works best for me and my students.

Similarly, another instructor stated, “I have ‘stolen’ the best practices of my instructors. I cannot take their personality, but I have utilized their best methods/materials.” For most instructors, mimicking the styles and methods of their previous instructors was a great asset to their instructional style and technique. Many participants shared memories of their experiences as a student observing their instructors, demonstrating its impact on their current preparation and style for teaching in an ATEP.

There were several instructors that I model my teaching after ... They were able to convey the information in a way that was useful. They would teach us a subject but then go into a story about when they had to use this information. I not only remember all of their stories but it helped me learn the information for tests and for the on field assessments. Now I try to make sure that for each big concept I tell a story to try and get the students remember it not just for the test but long term.

Observations of previous instructors and their teaching methods were not the only factors impacting these instructors’ preparation for becoming a teacher in an ATEP. Instructors also reflected on the impact their previous instructors’ personal attributes and skills had on them as a

student and as an instructor. More specifically, most participants reflected on their instructors' passion for teaching and care for student learning, as well as their class management skills and ability to foster critical thinking and engagement. One instructor stated "My teaching preparation has been a combination of self teaching methods. I would say my first method was to mimic the best teachers that I had as a student and try to match their style, their organization, and their inspiration." Another instructor said

I had two particular instructors in undergraduate, and graduate school that were very instrumental in my decision to pursue teaching, and how I would develop as a successful instructor. These instructors had a special ability to make learning, interesting, and enjoyable. They made you "want to be there" I have taken their techniques, and feel that I have a special ability to TEACH.

Other influences. Aside from their educational experiences and influences, several participants also noted two external aspects of their life experience that they believe to be influential in their development and identity as an instructor. These experiences were forms of leadership, such as athletics and parenting, that have impacted their perceived preparedness and who they've become as an instructor.

For several participants (35), their involvement in athletics, either as a coach or athlete, has contributed to their preparation and development as an instructor for athletic training. Often being responsible for a team or being a part of a team assisted with their development of leadership qualities as well as provided them with a greater appreciation of the relationships between sports and athletic care. As one participant stated, "Experiences as a student-athlete allowed me to see issues from both angles, and help me to provide that insight to those I teach."

In addition, competitiveness can be viewed as an inherent quality of any sport or athletic endeavor. Often the competitive nature of both coaches and athletes to win and become the best

at what they do has assisted some instructors' development and approaches to teaching in an ATEP. Often instructors use their competitive qualities as a driving force to become the best and most knowledgeable instructor they can be. As one instructor put it:

Continuing to be active as an athlete (tri-athlete) keeps me to always challenge my thinking about how to train and improve...and that is a philosophy I carry over into the classroom. Not everybody has to take the same path to success, there is more than one way to get there and I think my tri career has helped me keep that perspective.

The other external factor instructors perceived to be influential to their preparedness as an instructor for an ATEP was parenting. While only a small number of instructors ($n = 15$) identified parenting as influential to their preparedness, it was interesting to see parenting's impact on some instructors preparedness for teaching in an ATEP. Instructors believed that parenting enhanced understanding of the student learning processes, provided them with a deeper sense of compassion for others, and heightened their preparation in the classroom. As one instructor stated "Married and raised three children. It is the perfect training ground for a career in higher education... Teaches you to be adaptable, flexible and caring regardless of the transgression or mistake."

This section has described several factors affecting the perceived preparedness of instructors for teaching in an ATEP. Throughout the responses collected from the study's participants, athletic training field experience and education, pedagogical experience and pedagogical education, and experiences as a learner were the most prominent factors influencing the perceived preparedness of ATEP instructors. In an attempt to understand more about the perceived preparedness of instructors for teaching in an ATEP, the following section will describe several factors for which participants felt underprepared for as well as experienced fear or anxiety toward whilst instructing in an ATEP.

Subsection II: Unprepared for and anxieties about teaching.

This section of the research study presents qualitative data related to participants' perceptions on what they believed to have been less prepared for when beginning teaching in an ATEP as well as their anxieties and fears while beginning in the ATEP classroom. The findings collected for this section arose from the collection of responses across three of the study's open-ended questions. The following open-ended questions determined what the respondents felt unprepared for or feared when beginning teaching within an ATEP. From the data collected several themes and subcategories emerged. The primary themes were pedagogy, feelings/obstacles, and fears/anxieties.

- What were some of your greatest challenges during your first year teaching? Why?
- In your current role of teaching within an undergraduate program, what aspects of teaching did you feel underprepared for?
- What were your greatest fears/anxieties going into your first year teaching? Why?

Pedagogy. Instructors described several areas of teaching or pedagogy they believed to have been less or unprepared for when beginning teaching for an ATEP. These areas of pedagogy include teaching styles, learning styles, course/class preparation, exams/grading, time-management, engaging students, and managing in-class questions.

Not having a formal background in pedagogy led many participants (67) to question their abilities as an early instructor for an ATEP. For many, pedagogical training and education appeared to have been a missing link between their preparedness to teach and their self-confidence as an instructor. One instructor stated, "I think not actually knowing how to teach

until recently presented a big challenge. I didn't have any pedagogy classes or any classes that helped me actually become a teacher." While another instructor believes his/her lack of pedagogical training impacted his/her ability to connect with students' various forms of learning, "Dealing with students whom had issues with writing or problem solving. Without having a background in pedagogy or language, it is difficult to relate."

Instructors' unfamiliarity with pedagogy also contributed to many perceptions of an inability or self-doubt to use various styles of teaching. One instructor stated, "Beyond mimicking the teaching style of mentors, I have no understanding of learning theory." Often, instructors were unsure of the "best methods" to use within their classroom as well as which methods would reach their learners. One participant commented that one of his/her greatest challenges was "not understanding how to teach others the material in a course. I could tell them about it but was doing more of a presentation than actually teaching the students." Another participant commented

Teaching the hands-on part of athletic training, while I know how to tape and do the special test I was never really forced to explain everything and why we do it. There are many times when I forget that I should explain methods more or how I should explain them.

Not understanding the best teaching styles to use or how to use them was a common challenge among many participants. Others indicated that their lack of pedagogical training or pedagogical understanding translated into their unpreparedness for various forms of student learning.

Often participants expressed that there was a gap between how they were attempting to present material and their students' learning. Instructors felt particularly challenged and unprepared to help students with learning disabilities. Participants attributed their challenges to

their lack of training on understanding student learning styles. For example one participant commented

...learning disabilities is not something I was highly educated on in any of my education. Understanding how to interact and make sure those students get involved and understand the material I think is one of the hardest things as a new faculty member.

Similarly, another participant described a challenging situation where his/her unfamiliarity with learning styles affected his/her ability to accommodate some students:

Greatest challenge was the learning curve of some students. I required all students to write papers and many were unable to write a complete essay on a first aid experience. It was a challenge for me to know what to do with these students and how I could help them.

Class Management. For 160 Participants their perception of their lack of preparedness also translated into their inability to manage their classrooms: earning students' respect, engaging students in learning, and answering students' questions. Often, participants began teaching within an ATEP not long after completing their own degree. For some, appointment to an ATEP faculty position was their only responsibility, while others were dual appointments of ATEP faculty and athletic trainer. In either situation, participants expressed how challenging it was for them early on in their career to earn the respect of their students and keep the students engaged. Often, participants' careers began as early as one year after earning their professional degree, which often meant that teachers were not much older than their students. One participant said that age was one of the greatest challenges in earning the respect of students. He/She stated, "Getting the students to pay attention to me and take me and my class seriously because I was young (24) and one of my students was only a year younger than I was." Another participant describes a similar challenge, "I would have to say that commanding the attention of my students

without getting distracted was one of my biggest challenges because I had just finished grad school and it was my first time teaching at a university.”

Other participants shared a brief story of their first experience with gaining students attention and earning their respect and how they were unprepared for this type of situation.

Classroom management was the hardest thing to do. My first day in the classroom I had one student cuss at another student and then refused to leave the classroom. Nothing in my graduate program taught me how to deal with this situation. Over time, I have become better at it but it is still something I am working on.

Classroom management---even today I struggle with what is acceptable student behavior. I have students that text, talk amongst themselves, have other technology they are working on, etc. It is extremely disturbing to me that they lack respect for me and their peers. Handling those situations or ignoring those types of behaviors is extremely frustrating and difficult for me.

Respect. Earning students’ respect, and engaging and motivating them to learn were the products of instructors’ (147) becoming more confident and making the student/teacher relationship more explicit and exclusive. This was often perceived as a difficult task either as a result of instructors’ role as both an instructor and athletic training clinical instructor, their similarities in age, or their brief experience as an ATEP instructor. One participant stated “It was difficult to be perceived as a professional instead of a buddy. I was close in age to my students, and had to learn how to clearly draw the line between friend and professional relationships.” While another participant discovered the importance of exhibiting confidence in earning students’ trust and respect with their learning. This participant stated, “Making sure that what I was saying I was confident about. Some students may have tried to challenge me in a way. Once you are confident and gain their trust it becomes better.” The following are additional examples that reflect the challenges of teacher/student relationships that the group found:

Will I be able to earn the respect and confidence from my students, because I was right out of graduate school with limited teaching experience.

Getting students motivated to learn and participate. I was only 5 yrs. older than my first year students.

The students wouldn't take me seriously and would walk all over me because of our age similarities.

I was worried that the students wouldn't listen to me. My biggest reason for this was that they were close to my age.

I was afraid to be accepted as a knowledgeable, reputable instructor - especially considering my age.

Student questions. Another challenge affecting novice instructors' (54) perceived preparedness for teaching was responding to student questions. Fear of teaching, especially fear of being wrong or not having all the answers, was a significant factor influencing these instructors' perceptions of their preparedness. As new instructors, many participants felt they did not possess enough knowledge, experience, or expertise to be an "expert." Fear of not having all the answers turned many participant experiences into times of low self-confidence. One participant questions his/her ability by stating:

Will I know more than my students? What if they ask me a question that I can't answer? I was scared that I would look unqualified to teach the course in front of the class and would lose the respect of my students.

The challenge of answering student questions also appeared to arise from a self-doubt in many instructors' perceived teaching abilities. Early on in their careers, participants worried that their lack of experience and ability would negatively affect students' futures. One instructor stated:

In taking this new position, I was the most anxious about the teaching aspect of the position, because it was new and because it was a new program with its own

expectations, culture, etc. I was afraid of not being "good enough " and the students not receiving the information they needed from me. I was afraid they would miss vital information from me if I didn't deliver it accurately. I was also afraid of being challenged/questioned by a student and not knowing the answer, as well as dealing with conflicts or lazy/unmotivated students and how to confront them.

However, while many shared the same feelings of unpreparedness and fear of not having all the answers, over time instructors also expressed that their experience in these situations afforded them the opportunity to grow as an instructor as well. Through these experiences, participants began to realize they did not need to know all the answers. Rather, for some, with experience came an inner confidence, acceptance, and a professional growth moment they were able to say "I don't have all the answers." One participant states:

Would I know everything I need to know, would I not make a fool of myself in front of the students. I think anytime people are ""on the spot"", they have these concerns, until they've handled them and been in them many times. I'm no longer nervous talking in front of students or groups of people and no longer feel like I have to have all the answers. Sometimes, others know more than me....and that is OK too. I often learn from my students.

Administration. The administrative side of teaching was a noteworthy area in which participants felt unprepared for or experienced great challenge. Some of these concerns or challenges include class preparation, depth of information, evaluating learning, department policies, and workload.

Often participants (160) indicated that one of their greatest challenges or aspects of being an instructor that surprised them the most was the wealth of preparation needed to instruct and design a course and its content. Participants were often surprised by the vast amount of time it took to develop, organize, and plan material to be taught. One instructor stated:

I am currently in my first year teaching (I teach a clinical class) and it has been a challenge to find the time to adequately prepare, given all of my sport responsibilities. I

have been amazed at the work that is required for this class, even though it is only once a week. I did not feel prepared as we started, had no real concept of all that would need to be covered in such a short amount of time

Another participant discusses how preparing a course for the first time possibly affected the quality and effectiveness of his/her classroom teaching.

Preparation of new courses and trial and error were the greatest challenges. I think that the first year is just getting up to speed with the information that you are teaching that you don't have as much time to focus on the way that you are presenting information.

As a result of their inexperience with course preparation as well as their inexperience as an instructor, participants often stated that they were unsure of how much information to present to their students. Some participants (18) found it difficult to discern what was too much information and what was not enough. Because of this uncertainty, course organization continued to be a challenge and an area in which they felt unprepared. One instructor stated

Being organized and deciding what was the most important information to teach and what to let go. As an instructor I want to share all of my knowledge, but it is just not possible. Everything feels important to me. I spent a great deal of time prioritizing what information was essential and what was secondary.

Instructors (61) also indicated specific challenges in attempting to navigate developing effective exams and their assessment of student learning. At times, participants struggled to develop exams that accurately assessed students' athletic training knowledge. "Ok I have these grades, what do they tell me. I have these student perceptions, what do I do with them. What do all these numbers mean and what do I need to assess?"

For some of these same participants, their philosophy for assessing student learning encompassed more practical methods of evaluation rather than the more traditional exam

formats. These instructors believed that athletic training knowledge is best understood in students' abilities to demonstrate specific skills and tasks, rather than the ability to regurgitate concepts and information. However, instructors perceived preparedness in developing exams that would assess students' learning and abilities in the field were often compounded by their insecurities as an instructor without pedagogical experience. One instructor stated

Do I want students to know how to actually know how to treat an injury after finishing with a Prevention and Care class? If so, that should be a very different type of assessment than multiple choice testing. I strongly believe that Athletic Training educators should have some sort of training in teaching and learning to better help their students develop into strong health care practitioners.

Another participant had similar concerns.

I think most first-year teachers in an ATEP (if they don't have classes or degrees in teaching) struggle with this. They either tend to make tests that don't assess what they want their students to know, use ""canned"" tests that come with their teacher's edition. or don't even know where to begin. Otherwise, they use someone's notes that they had from when they were in undergrad.

Participants (29) also indicated that there was a significant learning curve for understanding and navigating departmental policies, procedures, and accreditation processes. One participant commented, "My position in the professorate. I needed more info on what it means to be a professor in a university system and the demands, other than teaching, that are demanded of a professor." Another participant stated "I personally have the hardest time with the different policies and procedures at the institution. I was underprepared for this as a teacher."

Another challenge was their workload. Participants (32) commented on the difficulties of attempting to serve two working positions, that of clinical athletic trainer and athletic training

classroom instructor, within their institutions. While many reiterated similar challenges and scenarios, one instructor stated:

Well in my first teaching experience first I was asked to teach pharmacology, modalities and anatomy and pharmacology and modalities where challenging on top of that, the school I was a clinical coordinator at and assistant AT for football (split position) was on a block schedule so I had to teach 4 hours every day for 3.5 weeks the entire courses. That was a steep learning curve but one that was great as you cannot lecture for 4 hours a day plus in the afternoon if you had lab that was for 2 hours (with modalities) so I used and incorporated a lot of Problem based learning, projects and group work and was a great thing for me but was challenging a lot of prep work to develop all the new courses on top of providing clinical coverage and since my contract was 60 academic and 40 athletic the AD figured the 40% based on his full time ATs working 70 and 80 hour weeks again added challenge to balance the load.

Another instructor echoes this challenge.

When I began working at the college level, I had a split position. I taught 50% of the time: morning classes in first aid/CPR and A&P, (lecture and lab). I was the women's athletic trainer 50% of the time and was responsible for providing health care to 10 very competitive NCAA D-III teams in Wisconsin. The hardest task with a split position is trying to serve ""two masters"" (academics/athletics), effectively. I found, and continue to believe that any athletic trainer that is a teacher/athletic trainer is more often than not, forced to serve the needs of athletics at the expense of one's academic student responsibilities. (If the team needs you, cancel class to take care of the team.) I never liked that philosophy.

Balancing two positions, faculty and athletic trainer, is an obvious challenge for many athletic trainers. The immense workload poses a multitude of threats to one's success as an instructor within an ATEP.

Low Self-confidence. Another intervening condition that 60 athletic training instructors experienced or perceived to have affected their perception of their preparedness to teach during their first years in an ATEP was a lack of self-confidence. Participants in this study described

their lack of self-confidence as attributing to their low perception of preparedness in some way. For these instructors, their low self-confidence was compounded by their insecurities with their knowledge of course content and teaching abilities. One instructor stated:

My greatest fear was that my students would think I was full of it; that I didn't know the material as much as I should. I never want a student sit in my class and think "This person knows nothing about this topic".

Participants also attributed their low self-confidence to their age (23) or inexperience with teaching and pedagogy (12). "Thought they'd see through the fact that I hadn't taught before. Why? Because I was a ""rookie""." Teaching at a young age, but more specifically teaching while fresh out of school themselves, often impacted their perceived self-confidence and their knowledge. One instructor stated, "Having the self-confidence at a young age to educate athletic training students. It was intimidating being on the educational side, rather than being a student myself." While another instructor stated his/her greatest fear was, "Being confident in my knowledge and skill level. This stems from ... teaching during my first year of certification. I am teaching/working at my graduate school. Some of the students were current students during my education period." Combined with low self-belief in their course knowledge, their fear of not being able to command respect further illuminated participants' lack of self-confidence. One participant stated, "I was afraid to be accepted as a knowledgeable, reputable instructor -especially considering my age."

Consistent with instructors' perceptions of how they felt unprepared for teaching in an ATEP, fear of not having all the answers or not being able to answer students' questions also turned 62 instructors' early years of teaching into times of low self-confidence. One instructor stated, "The first time I taught biomechanics, I was terrified of the physics stuff. I felt I knew it

well, but when students asked questions, I was afraid of not knowing enough.” Similarly, another participant expressed his/her fear as:

Will I know more than my students? What if they ask me a question that I can't answer? I was scared that I would look unqualified to teach the course in front of the class and would lose the respect of my students.

Many instructor anxieties focused around various aspects of appearing as a competent instructor to their students. Early on in their transition into teaching, 112 participants feared that they were not prepared with the necessary skills or experience to present information and promote student learning. Many of these fears arose from anxiety of public speaking, but others were concerned that their presentation style might be ineffective in facilitating students' learning. One participant stated, “My greatest fear was failing the students and not providing them with the information they needed and not providing that information in an effective way.”

In taking this new position, I was the most anxious about the teaching aspect of the position, because it was new and because it was a new program with its own expectations, culture, etc. I was afraid of not being "good enough" and the students not receiving the information they needed from me. I was afraid they would miss vital information from me if I didn't deliver it accurately.

That I would not be able to adequately teach the information I am responsible for instilling into the students since I have limited teaching experience

Being able to express my thoughts clearly and concisely in a way that the students would understand.

My greatest fear was failing the students and not providing them with the information they needed and not providing that information in an effective way.

Participants' knowledge and ability to deliver important athletic training content fueled their fears and insecurities for teaching. Some participants (7) also believed that the information they were presenting was vital to the care and prevention of injuries, and that if this information

was not received clearly by the students, the potential for causing harm as a prospective professional was heightened. One participant stated “I wanted to teach the course well and make sure they understood what I was teaching... if I don't teach this course well, this is the only athletic training course they are taking which will actually save a life.” Another participant was concerned “that my students would not understand the information that I was teaching. In our field if you teach something wrong or it is unclear, someone can get hurt. I take that very seriously.”

Throughout this study participants expressed and identified numerous factors for which they believed to be unprepared for in their early years of teaching. These factors included several areas of pedagogy as well as a number of anxieties and fears, which possibly compounded their perceived level of preparedness. In an attempt to learn more about what instructors believed to prepare them for teaching in an ATEP, the following section explores various perceived achievements during instructors’ first teaching experiences.

Subsection III: Successes and growth.

The responses collected for this section arose from one specified question within the study’s questionnaire: What were some of your greatest successes during your first year/s of teaching? From the responses collected, several themes emerged. These themes include professional growth, student learning, and positive feedback.

As described earlier, familiarity with various aspects of pedagogy was one of the conditions that affected many instructors’ perceived preparedness for teaching in an ATEP. However, reflecting upon their first years of teaching, participants saw some progress and development with regards to their knowledge and application of pedagogy. Of the 281 responses collected, seeking to discover more about their positive experiences for teaching in an ATEP,

approximately 40% had described professional growth in some manner. Seventeen percent of the 281 participant responses collected and analyzed or 47 participants indicated that their abilities to engage students had evolved, while ten percent or 27 participants indicated growth in their teaching style. For some participants, their first year or “trial and error period,” as one instructor put it, provided them with the opportunity to develop strategies to become a better teacher.

Students’ learning and development was one of the main priorities for all of the instructors. As mentioned previously, encouraging student engagement was an additional area in which participants felt unprepared. Two of the most rewarding aspects for instructors during their first years teaching were observing enhanced student engagement and witnessing their learning. These two factors provided a feeling of authenticity and verification that what they were doing in the classroom and with their students was effective teaching. One instructor stated that one of his/her greatest successes was, “Making the connection with the student and seeing them ‘get it.’ It was pretty cool to see that you were truly being an effective teacher by seeing the students understand the material you are teaching.” Another participant described his/her greatest success as

When I realized that my students were understanding what I was teaching and being successful in skills I was showing them in class... was a great feeling. Sometimes I feel that my students just stare at me and aren't getting anything, so to see this was awesome.

Feedback from students was also a contributing factor affecting the perceived preparedness of these instructors. Of the 281 coded responses, 15% or 43 participants claimed that positive feedback provided further justification of their abilities as an instructor. One instructor stated that his/her greatest success was “helping students with material that they didn't quite grasp from other classes, and having them praise the way in which I delivered the material.

Really seeing their understanding and knowing that I helped with that." Receiving feedback, but more specifically positive feedback, appears to have provided these instructors with an enhanced sense of confidence, a greater appreciation for teaching, with a resulting sense of affirmation as a new instructor.

It is extremely important to better understand the experiences of ATEP instructors with regards to their perceived preparedness for teaching in an ATEP. The descriptions provided previously within this chapter represent the perspectives of athletic training instructors. The following section will attempt to provide further support for these instructor perceptions through analysis of the responses of Athletic Training Program Directors.

Quantitative Data Results (Athletic Training Program Directors)

The following section summarizes the quantitative data collected from athletic training program directors. A total of 43 program directors (PD) successfully completed each close-ended question within this study. This portion of the study consisted of a separate questionnaire, consisting of five questions, designed with the purpose of exploring program directors' perceptions of the importance of pedagogical knowledge of teaching and the need for pedagogy in athletic training education. This information provided further support to findings within the collected athletic training instructors' data. This section will provide frequency statistics for each of the study's questions. The following are close-ended questions utilized within the administered program director questionnaire:

1. Knowledge of pedagogy is important to being an instructor within an athletic training education program.

2. Pedagogical preparation is necessary to becoming a successful instructor within an athletic training education program.
3. Teaching methodology should be implemented within athletic training graduate programs.
4. Aside from their other athletic training responsibilities, your athletic training staff also teaches within your athletic training education program.
5. What resources do you provide to your instructors to improve upon their pedagogical skills? (List)

Questionnaire results.

In response to question 1, knowledge of pedagogy is important to being an instructor within an athletic training education program, 97.7% or 42 of 43 program directors either agreed or strongly agreed that knowledge of pedagogy is important to being an instructor within an ATEP (see table 21).

Table 21

Knowledge of Pedagogy

Program Directors' Questionnaire		
1. Knowledge of pedagogy is important to being an instructor within an athletic training education program.		
Answer Options	Response Percent	Response Count
Strongly Agree	44.2%	19
Agree	53.5%	23
Disagree	2.3%	1
Strongly Disagree	0%	1
Answered question		43

In response to question 2, pedagogical preparation is necessary to becoming a successful instructor within an athletic training education program, 76.8% of program directors also agreed or strongly agreed that pedagogical preparation is necessary to becoming a successful instructor

within an ATEP. Of the remaining participants, nine program directors disagreed and only one strongly disagreed that pedagogical preparation is necessary. Table 22 describes this data further.

Table 22
Pedagogical Preparation

Program Directors' Questionnaire		
2. Pedagogical preparation is necessary to becoming a successful instructor within an athletic training education program.		
Answer Options	Response Percent	Response Count
Strongly Agree	23.3%	10
Agree	53.5%	23
Disagree	20.9%	9
Strongly Disagree	2.3%	1
Answered question		43

In response to question 3, whether teaching methodology should be implemented within athletic training graduate programs, 90.7% of program directors believe that pedagogy or teaching methodology should be implemented in some fashion within athletic training graduate programs. Only four program directors disagreed with this concept and none strongly disagreed (see table 23).

Table 23
Teaching Methodology and Athletic Training

Program Directors' Questionnaire		
3. Teaching methodology should be implemented within athletic training graduate programs.		
Answer Options	Response Percent	Response Count
Strongly Agree	27.9%	12
Agree	62.8%	27
Disagree	9.3%	4
Strongly Disagree	0%	0
Answered question		43

In response to question 4, aside from their other athletic training responsibilities, your athletic training staff also teaches within your athletic training education program, 76.7% of program directors indicated yes. Further interpretation of these results indicates that more than two-thirds of these program directors' staff has additional teaching and/or clinical responsibilities associated with their job. Therefore, the majority of these program directors employ dual positions, clinical and instructor, within their respective programs. However, 23.3% or 10 program directors indicated that their athletic training staff do not teach within their ATEP and are therefore strictly clinical athletic trainers. Table 24 describes this data further.

Table 24

Athletic Training Staff Responsibilities

Program Directors' Questionnaire		
4. Aside from their other athletic training responsibilities, your athletic training staff also teaches within your athletic training education program.		
Answer Options	Response Percent	Response Count
Yes	76.7%	33
No	23.3%	10
Answered question		43

Lastly in question 5, program directors were asked to list the resources they provide to their ATEP instructors for improving their pedagogical skills. The purpose of garnering such information was to provide a better understanding of the resources available to ATEP instructors for enhancing their pedagogical skills and knowledge. Ninety-three percent of participants indicated that they provide at least one resource for their ATEP instructors, and 60% of program directors provide at least three but up to eight available resources for their ATEP instructors. Additionally, 6.9% responded "none" for their provision of resources to their respective ATEP instructors. The resources provided to instructors by ATEP program directors are provided in a

variety of ways. For the purpose of enhancing clarity, these resources were grouped in the following manner: materials, training, college resources, funding, personal course assistance, evaluation, and faculty meetings. Of these resources, materials and college resources collectively (77.5%) appear to be the most significant of all provided resources. However, individually, ACI training was the most prominent single choice or provision noted by program directors. Tables 25 and 26 provide supplemental data and information as to how participants responded.

Table 25
Percentage of Resources Provided

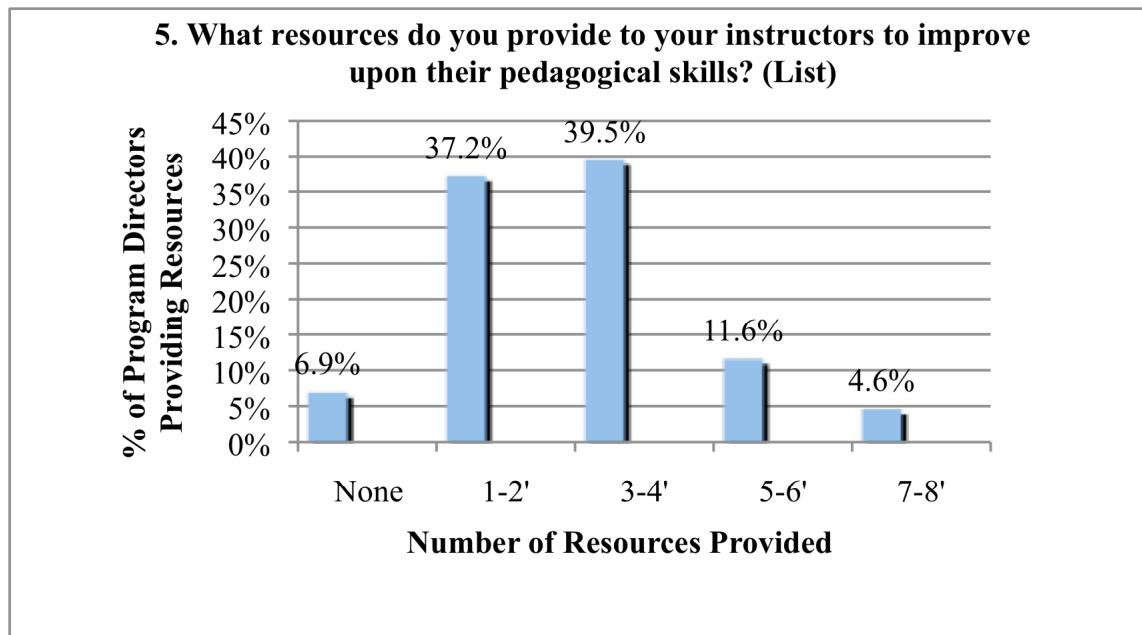


Table 26

Frequency of Available Pedagogical Resources

Question 5 Cont.	Specific Resources Provided	# of PD
Materials		
	Journal Articles	1
	Previous Course Material	3
	Printed Materials	5
	Textbooks	9
	Access to Research	6
	Web-sites	1
	Trends in AT Ed.	2
	ATEP Standards and Guidelines	4
Training		
	ACI Training	14
	Annual Training	1
	Learning Styles Training	1
	New Faculty Development Program	1
	Mentorship Program	1
College Resources		
	Teaching and Learning Center	4
	Access to College of Ed. Personnel	1
	Mentoring Opportunities	11
	Workshops	6
	On Campus Faculty Development Opps	9
Funding		
	Continuing Education Stipend	11
Personal Course Assistance		
	Course Design Assistance	6
	Syllabus Writing Assistance	3
	Technology Assistance	5
Evaluation		
	Observation/Feedback	7
	Observation of Others Teaching	2
	Peer Evaluations	6
	Student Evaluations	1
Faculty Meetings		
	Open Discussion	7
	Monthly Meetings	2
	Meetings with Administration	2
	Weekly Presentation Reviews	1

Cross Analysis

This section will review the results across both instructors' qualitative and quantitative data as well as the quantitative data collected from athletic training program directors. When these three sources are viewed collectively, the theme of pedagogical importance is illuminated. Furthermore, when reviewing only ATEP instructors' qualitative and quantitative data responses and results, several other themes emerge. These themes include: experiential learning, pedagogical experience, self-directed learning, reflection, challenges, and professional growth.

Results from both quantitative sources, instructor and program director questionnaires, were similar in their perceptions of pedagogy and its importance to enhancing teaching. For example, 97.7% of program directors and 72.9% of instructors believe that obtaining pedagogical knowledge is important to effective teaching and for teaching in an ATEP. These results may also be a product of the vast number of athletic training instructors who have taken some form of pedagogical coursework prior to becoming an instructor for an ATEP. Of the 364 instructors who completed the study's demographic questionnaire, 56.5% indicated that they have taken pedagogical coursework at some point in their education. In addition, through their qualitative responses, 81 instructors indicated that they hold either an advanced degree, such as a Ph.D and Ed.D, or a Master of Education degree in addition to their degree in Athletic Training. Tables 27 and 28 provide further data to support this claim.

Table 27
Pedagogical Importance

Pedagogical Importance	Program Directors	Instructors
Previous pedagogical knowledge is important to effective instruction	97.7%	72.9%
Pedagogical preparation is necessary for instructors	76.8%	65.3%
Pedagogical coursework should be in AT education	90.7%	65.5%

Table 28
Pedagogical Education

Pedagogical Education	No. of instructors taken pedagogy
Instructors required to take pedagogy	157
Instructors who've taken pedagogy in addition to their curricular work	49
	Total 206

During the analysis of the responses collected from athletic training instructors on their perceived preparedness for teaching in an ATEP, the following themes emerged: experiential learning, self-directed learning, pedagogical experience, reflection, challenges, and professional growth. While many of these themes evolved from participants' qualitative responses, some of these results may also be supported by participants' quantitative data reports as well.

Experiential learning appeared to be one of the more influential factors affecting participants' perceptions of their preparedness and preparation for teaching in an ATEP. Often, instructors spoke of how their athletic training field experience provided them with an informal teaching and learning environment where they could gain valuable experience, confidence, knowledge, and skills, all of which they could transfer to the more formal or traditional classroom when beginning teaching for an ATEP. In a similar vein, participants gave high ratings to perceptions of their clinical experiences and graduate experiences, as related to contributions towards their perceived preparedness for teaching. The very nature of athletic training fieldwork and field experience, when viewed through these two sources of information, provides ATEP instructors with invaluable preparation for the classroom.

Pedagogical experience was another theme or category that participants viewed with high regard for the preparation to teach in an ATEP. Taking pedagogical coursework or having some pedagogical experience, for most instructors, provided the foundations for teaching and learning

strategies upon which they could build. While many instructors within this study have obtained an advanced degree or other supplemental degrees in education, having experience as a teaching assistant prior to becoming an instructor was paramount to the perceived preparedness of numerous instructors. Much like the perceived benefits of pedagogical experience, TA experience provided these instructors with formal experience as an instructor, with direct mentorship and guidance enabling them to develop and understand teaching and learning skills and strategies. As a result of these experiences, instructors' perceived preparation and competence to teach in an ATEP was enhanced.

Throughout this study the theme of self-directed learning was also evident. It is apparent, through the data and responses participants provided, that instructors desire knowledge and information that will make them a "better" instructor. The theme of self-direction is obvious from participants' desires for life-long learning within their many pursuits for obtaining advanced and educational degrees along their journey to becoming an instructor. However, this characteristic was also apparent in participant responses and discussions on how they have utilized many of their life and educational experiences to enhance their teaching and learning skills, thus becoming a more effective instructor.

Aspects of being a self-directed learner included times of reflection and observation of previous and current experiences while becoming an ATEP instructor. For these instructors, remembering back to their likes and dislikes as a student and their observations of others' teaching methods and styles greatly impacted their view of whom they wanted to become and who they are as an instructor. Reflection and observation created a form of learning for becoming and being an instructor for many participants. Participants often utilized these lessons

learned to influence and formulate their teaching strategies, skills, and knowledge in their current practices.

Participants also described several challenges or conflicts they faced either within themselves or in their classroom. In the classroom, many participants experienced anxiety or felt challenged by the process of determining which teaching methods were best and most appropriate, which style of teaching they should adopt and when, and how to best respond to the challenges inherent in gaining their students' respect. In addition, participants felt unprepared for the administrative side of teaching, which included: planning, preparation, organization, and grading.

On a personal level, many participants considered low self-confidence as a major inhibiting factor affecting their perceived preparedness for teaching within an ATEP. For several participants, self-doubt was a derivative from their apprehensions that they would be judged as "not being good enough." Many others lacked confidence in their teaching abilities and their possession of adequate knowledge content. In either situation, participants often attributed their low self-confidence and inner-struggle to their lack of pedagogical training and/or familiarity with pedagogical concepts.

Despite feelings of low-self confidence in themselves and their abilities, participants shared how their early experiences as an instructor provided them with opportunities for professional growth. Through their "trial and error period," as one instructor put it, many instructors discovered they had enhanced their teaching style, skills, and methods. In a similar vein, through observing others learn from their teaching strategies and methods, instructors' realized an enhanced self-confidence as well as a feeling of authenticity as an ATEP instructor. This "trial and error" method may be one more example of instructors' self-direction.

The quantitative data gathered from both sources, instructors and program directors, was utilized as supplemental data for instructors' perceived preparedness for teaching in an ATEP as well as to observe and examine their perceptions on the importance of pedagogical knowledge and training for teaching. Instructors' quantitative data results for their perceived preparedness demonstrated significant levels of perceived competence (84.8%). These results do not appear to reflect participant qualitative responses and reflections. However, positive responses by participants toward their clinical experiences and graduate experiences as contributing to their preparedness are reflective of positive experiences participants had in their education and in their clinical fieldwork. Other survey results related to pedagogy and its importance to teaching were also highly praised by most participants. These results are also reflective of and further supported by program directors. The responses of both instructors and program directors indicate pedagogical knowledge as important to being an ATEP instructor, pedagogical training as important to becoming an ATEP instructor, and confirm beliefs that pedagogy should be implemented within athletic training education.

Summary

The findings of this study presented in this section consisted of qualitative responses and quantitative data from ATEP instructors as well as quantitative data from athletic training program directors. The first section of this chapter contained ATEP instructors' thoughts, beliefs, and feelings regarding their preparedness for teaching in an ATEP. The second section included instructors' survey results, also regarding their preparedness for teaching in an ATEP. Lastly, the third section consisted of program directors' survey results for pedagogy and its importance to teaching. Each of these three sources was used in providing supporting information to this study's emergent themes. The information gathered and presented here will be used to further

inform the study's overarching question: What are early professional athletic trainers' perceptions of their preparedness for teaching in an undergraduate athletic training education program?

Chapter V

Discussion

Preparation

This study explored athletic training instructors' perceptions of their preparedness for teaching in an athletic training education program. One of the growing concerns within athletic training is that instructors may not be fully prepared with the necessary skills to teach within an ATEP (Craig, 2006). Within this study athletic training instructors expressed their perceived preparedness for teaching through open-ended survey questions, as well as through quantifiable questions for the purposes of providing supplemental data. In addition, this study surveyed athletic training program directors for the purpose of supplying complementary data. Through the study's findings, it became evident that athletic training instructors' perceived preparedness for teaching in an ATEP can be explained by several theories of learning, such as, mentor/protégé model of learning, experiential learning theory, and social learning theory. In addition, as demonstrated by their actions, attitudes, and beliefs, participants placed a high value on pedagogy, its importance on effective teaching, and its place within athletic training education.

Unlike many other professions, the very nature of athletic training education, and more specifically its clinical arena, may provide prospective athletic training instructors with an environment conducive to the development of enhanced pedagogical understanding. Within this setting, students and professionals work closely with one another facilitating growth and enhanced understandings of valuable athletic training skills and theory. Through their undergraduate and graduate mentoring experiences, many participants believe that they have formulated valuable pedagogical skills and knowledge within the clinical and field settings. One participant stated:

Our mentor program in my undergraduate program allowed me to start developing my teaching skills as we would go over proficiencies with our younger students. Also, I spent a lot of time in my classes working with fellow classmates who were struggling with the material. It gave me experience in finding different ways for different people to understand the same concept.

In 1986, Laurent A. Daloz presented a mentor/protégé model within adult learning literature. Within his model, Daloz suggests that there are three key elements—support, challenge, and vision that must exist between both mentor and protégé for positive change and growth to occur. The first element of his model, support, consists of the participation of activities that foster a mutual trust and respect between mentor and protégé. As a result of participation, the protégé’s potential anxieties are lessened, providing an atmosphere for professional growth to occur more efficiently. The element of challenge is the process by which mentors ask their protégé to confront and reflect on his or her values, beliefs, and professional competence. Through this process, mentors can help further identify misconceived knowledge and provide questions and or modeling to promote growth and enhanced understanding. Lastly, the element of vision encompasses understanding the protégé’s future plans and establishing practical goals for achieving the protégé’s vision.

According to Burningham, Deru, and Berry (2010), “the foundations of athletic training were constructed from mentorships” (p. 186). Within athletic training, each aspect of Daloz’s model, support, challenge, and vision, can be observed daily. Mentors develop relationships, establish goals based on the protégé’s vision, and challenge learners’ beliefs, skills, and knowledge of athletic training competencies to promote improved understanding and professional growth. Daloz’s mentor/protégé model is often represented arterially, where the protégé in the only beneficiary of learning. However, does an inverse or synergistic relationship

exist between mentor and protégé, where the mentor also benefits to enhance their professional knowledge and skills, as well as, foster their informal pedagogical knowledge and skill development through mentoring? While further investigation is necessary, the results of this study allude to some truth behind the existence of an inverse or reciprocal relationship between protégé' and mentor. One prime example of how mentoring has an equally beneficial relationship to the mentor is demonstrated in the following participant response:

As a graduate student, I mentor undergraduate students on a daily basis. I took it upon myself to teach them new skills and information whenever time allowed. In my first job, I was a clinical instructor, which again allowed me to teach informally to students in an athletic training education program. I would say that these two interactions with students helped me have a better understanding of how to go about teaching students, how they learn differently, and how demonstrating/practicing skills together is beneficial to students.

While mentorship is one way in which participants believed they had received informal pedagogical preparation to teach, participants within this study also believed teaching to be synonymous with athletic training fieldwork. Participants viewed athletic trainers as a critical link in educating and communicating with athletes, physicians, coaches, and parents on injury, treatment, and the healing processes. One participant stated, "Being an athletic trainer, you are a teacher as well. You are educating an athlete about their injury, communicating w/ a parent, coach...Many transferrable schools overlap the two positions." Through these daily operations and interactions, many participants believe that they have received useful pedagogical skills and knowledge, enhancing their perceived preparedness for teaching in an ATEP. Based on the responses collected, it appears as if the very nature of the profession provides an informal pedagogical environment, which inherently prepares its professionals with the perceived preparation for teaching. One participant stated, "My clinical hours best prepared me. You must

talk to athletes, coaches, and possibly parents about the student-athlete's injuries. You become a teacher about an injury without even realizing it." In 226 responses, across five of the study's open-ended questions, experiential clinical field experience was a noteworthy source affecting the perceived preparedness for teaching in an ATEP for athletic training instructors.

Although the scope of this research did not include athletic training instructor effectiveness for teaching, experiential learning theory explains the impact experience has on teachers' perceived preparedness for teaching in an ATEP. Nested within constructivist learning, experiential learning theory emphasizes the role of experience in one's learning and knowledge construction, which helps to explain teachers' perceived preparedness. Experiential-learning theory as described by Kolb (1984), is "a holistic integrative perspective on learning that combines experience, perception, cognition, and behavior" (p. 21). Today, Kolb's model of experiential learning is one of the most highly referenced theories in adult learning. Kolb's model of experiential learning is a collective and integrated approach for examining how adults grow, learn, and create knowledge. As the name of the theory implies, experiential learning is premised upon making meaning from experiences, and how those experiences contribute to adult learning and development.

According to Marienau (1999), "a hallmark of an educated person is the capacity to reflect on and learn from experience such that the learning yields meaningful interpretations of life occurrences and informs future action" (p. 135). Throughout this research, there were several lived or educational experiences that instructors related to their preparedness for teaching in an ATEP. Of the more noteworthy were the experiences had while in the athletic training field or clinical environment. Participants consistently relied on their previous experiences to form their current teaching styles, methods, and strategies. According to Kolb (1984), "learning is the

process whereby knowledge is created through the transformation of experience” (p. 41). During the study, numerous participants expressed examples of how they transformed their experiences into informed teaching strategies. One prime example of this transformation was stated by a participant as, “Experiences as a clinician aided in preparing me to provide practical experiences for students in the classroom to transgress the didactic information into practical realities.”

Clinical field experience is one example of how participants utilized their experiences to inform their teaching. However 89 participants also utilized their experiences as a teacher’s assistant (TA), practicing teaching concepts in live settings, to develop their teaching knowledge. These early opportunities teaching and learning about teaching, afforded these prospective instructors to challenge and build upon their existing knowledge through direct experience, thus developing more meaningful connections to teaching theory and practice.

I had a very good group of professors in undergrad and grad school. I take most of my teaching techniques from how they taught their classes. While in grad school, I was a TA for an undergraduate athletic training class. The supervising professor was very helpful in teaching me some of his techniques. Those experiences helped me realize that there is more to teaching than just giving the students the information, you must make sure they understand it and can critically think through a problem using that given information.

I feel like my graduate experiences of learning methods, test/lesson plan construction, and learning abilities helped me to prepare to teach at the undergrad level. Also, my own experiences during my undergrad helped me to determine the methods that worked and ones that did not in order to prepare my students for their future in Athletic Training.

Similarly, participants’ practical experiences as an instructor were also paramount to their teacher development. For example, one participant spoke briefly about how his/her doctoral education challenged his/her previously understood pedagogical knowledge, improving his/her practice. He/she states, “My Doctorate was in Education and this allowed me to enhance and improve on pedagogical techniques and update them from when I learned educational theory in

undergrad.” Other participants described concrete experiences while on-the-job that contributed to their development as an instructor.

I've taught topics several times and tried to improve my presentation of the material each time, utilizing my own perceptions on how successful my delivery was, students' grades, and student feedback.

I asked a lot of question of my supervisor and in addition often times I worked my way through the solution through trial and error. This prepared me because I had to do a lot of critical thinking for myself so I know how my students think.

Throughout this study participants provided numerous examples of how their experiences contributed to their understandings, knowledge, and later, their identity as instructors.

Experiential learning, from the perspectives of these participants, can be viewed as an essential element, linking informal athletic training experience and practical teaching experience to the development and enhanced understanding of applying pedagogical theory and concepts to the formal classroom.

Aside from participants' clinical experiences and teaching experiences, observation was also very important in the participants' experiences as learners, for developing their identities as instructors for an ATEP. Observational learning is a primary component of social learning theory. Social learning theory is best described as a process from which people learn from their environment in a social context (Ormrod, 1999). Each participant within this study attributed their perceived preparedness for teaching to their observations as a student learner, instructor, and observer of life. In approximately 421 responses, across five of the study's eight open-ended questions, participants described how and why their observations of previous instructors affected their preparation and preparedness for teaching in an ATEP. One participant stated:

I was most influenced by a professor I had in high school, but each instructor I had either taught me how I wanted to teach or how I did not want to teach. I take a combination of things they did and put them together to see what works best for me and my students.

Observing others and how they taught, for most instructors in this study, became one of the earliest moments when these instructors began to develop their personal teaching style. One participant stated, "I have 'stolen' the best practices of my instructors. I cannot take their personality, but I have utilized their best methods/materials." Often, participants utilized their experiences with and reflections of their previous instructors to inform their teachings. One participant stated "it was very useful to go back and forth between the role of student and faculty member to reflect on what I liked as a student and then transferred this back to my own teaching."

According to Bandura (1989), "people process and transform passing experiences by means of verbal, imaginal and other symbols into cognitive models of reality that serve as guides for judgment and action" (p. 9). Since the early 1960s, Bandura's work on social cognitive theory has had a major impact on the field of educational psychology. Bandura (1989) demonstrates how three forms of reinforcing agents—direct, vicarious, and self-produced—influence observation. Direct reinforcement occurs when an observer or learner successfully mimics a desired behavior and outcome.

In contrast, vicarious reinforcement of observation and imitation occurs when an observer witnesses others praised or reinforced for their behaviors. Whereas with self-produced reinforcement, people tend to replicate behaviors they perceive as valuable to themselves and reject behaviors observed as invaluable. For most participants, direct and self-produced observations became two of the more significant forms of observation and reinforcement. Many participants expressed that during their experiences as a student, they were able to observe

various styles and techniques of teaching that they would later imitate or attempt to replicate.

While many participants shared similar beliefs, one participant stated, "using the techniques used by my instructors helped me the most. By mimicking what they had done, it allowed me to do a decent job with teaching." However, participants' preparation for teaching was not just a product of direct imitation, but rather as a process of evaluating both positive and negative experiences as a learner.

Aside from the many informal experiences had by instructors, many participants also attributed their preparedness for teaching within an ATEP to their more formal experiences with pedagogy. Obtaining knowledge of pedagogy was paramount to most instructors within this study. Although 43.1% of the study's participants were required, as part of their undergraduate or graduate curriculums, to take a course or courses in pedagogy, an additional 13.4% of participants whose education did not require pedagogy did so anyway. Therefore, approximately 56.5% or 206 participants within this study had taken formal pedagogical coursework at some point in their undergraduate and/or graduate education. In addition, 81 participants also noted that they either hold an advanced degree (25) or dual degree in education (56).

The results of this study do not fully support the notion that athletic training instructors may not be fully prepared to teach. Rather, more than 55% of the participants in this study, who are teaching within an ATEP, have some degree of pedagogical training. One theory that could explain these results is that most instructors within this study may have had intentions of becoming instructors within an ATEP, thus consciously pursuing undergraduate or graduate programs with teaching methods and pedagogy built into its curriculum structure. Despite these characteristics, there appears to be an obvious value on obtaining pedagogical knowledge for enhancing the transfer of athletic training content into context for most athletic training

instructors. One participant stated, “In my graduate work, courses on the foundations of knowledge, curriculum development and foundations of teaching and learning have been key to my growth as an instructor.”

There has been a growing interest in learning more about faculty knowledge of teaching (Ennis, 1994; Lenze, 1995; Shulman, 1986, 1987; Shulman & Shulman, 2004). Shulman (1986, 1987) provides some of the more notable research on teaching and learning. Shulman believes that teachers’ subject knowledge and pedagogy exist interdependently. However, too often subject knowledge and pedagogy are detached from one another in teaching and learning. To address this issue, Shulman (1986, 1987) introduced his concept of pedagogical content knowledge (PCK). Within his PCK framework, Shulman describes pedagogical knowledge as the knowledge of teaching itself, whereas content knowledge encompasses the knowledge earned in one’s particular discipline. Shulman (1987) suggests that there is a balance between one’s content expertise and one’s ability to transfer that knowledge through effective instruction. Similarly Ennis (1994) believes, “Curricular expertise is reflected in teachers' abilities to select and convey content appropriate to the learner within a particular contextual setting and situation” (p. 164). One participant describes how he/she uses his/her knowledge of pedagogy as well as practical experiences to inform his/her teaching by stating:

I received my Master of Education in Curriculum and instruction. I practiced athletic training for 12 years before teaching in an ATEP. The combined knowledge on pedagogy and practical experience prepared me to be able to understand learning styles and presentation along with real-world application in the field.

The results of this study strongly support these researchers’ beliefs that having tools, content knowledge, and pedagogical knowledge, enhances teaching. In addition to the wealth of supporting qualitative responses from participants, an overwhelming amount of participants’

quantitative data also reflects their perception of pedagogy and its importance to education and the future of athletic training education (See Table 27 replicated below.). For further clarification, the following table represents the percentages of athletic training instructors and program directors that either agreed or strongly agreed with each associated statement regarding pedagogy and athletic training education.

Table 27
Pedagogical importance

	Program directors	Instructors
Previous pedagogical knowledge is important to effective instruction	97.7%	72.9%
Pedagogical preparation/training is necessary for instructors	76.8%	65.3%
Pedagogical coursework should be implemented within AT education	90.7%	65.5%

As we further explore athletic training instructors' perceptions of their preparedness for teaching within an ATEP, we cannot ignore their dedication to learning pedagogy to enhance their teaching craft. Self-directed learning theory also aids in the explanation of these participants pursuing pedagogical knowledge for improving their preparedness for teaching. Self-directed learning has been acknowledged by a number of researchers (e.g., Tough, 1978; Knowles, 1975; Knowles, Holten, & Swanson, 2005; Cameron, 1997), who have recognized its impact on successful learning. Self-directed learning theory is a process by which learners take initiative and control of their own learning by developing learning goals and strategies, while evaluating their educational outcomes (Knowles, 1975). Allen Tough (1978) was one of the first theorists to provide a comprehensive description of self-directed learning. Tough's description is based on a number of surveys and interviews that he conducted with adults, regarding their day-to-day learning efforts. As a result, Tough concluded that 80% of all learning efforts performed each

year by adults are performed through self-direction (Tough, 1978). Similar to Knowles' assumptions of adult learners, Tough (1978) has generated several rationales about why the adult learner chooses to learn independently. These include motivation, confidence, ease, availability, and time. Motivation and will to learn are essential characteristics of being a self-directed learner. While many instructors within this study had previous formal knowledge of pedagogy, others utilized their daily experiences with teaching and instruction to increase their critical pedagogical knowledge and teaching techniques. One participant states, "I had to figure out classroom management & pedagogy on my own while doing it in the field. I chose to educate myself on how to be an educator." According to Cranton and Carusetta (2004)

Most new faculty receive no formal teacher training; they uncritically absorb techniques, strategies, and styles from their own prior experiences as students and from their colleagues and the norms of the academic community. Through experience and reflection on that experience, they come to find their own way; they transform their habits of mind about teaching. (p. 7)

This form of teacher development and preparation for teaching was apparent in many participant responses of those who had not received any pedagogical training or pedagogical education during their processes of becoming instructors. While it could be argued that there is no substitute for on the job training or "trial and error," as one participant stated, to what degree does the initial lack of pedagogical knowledge impact students' learning?

Challenges

Although there may be several innate characteristics of athletic training education that could aid in instructors' perceived preparedness for teaching within an ATEP, many participants agreed that formal pedagogical knowledge was a missing link. In contrast to instructors' quantitative ratings of their perceived competence to teach (84.8% either agreed or strongly

agreed) feelings of low self-confidence was a significant theme within this study. Participants' low self-confidence appeared in many forms throughout this study, however each relate back to pedagogy in some way. These forms include feelings of unpreparedness and fears in regard to their understandings and knowledge of teaching and learning styles, and classroom and course management strategies. Without having a formal pedagogical background, many participants questioned their skills and abilities to teach and promote learning. Similarly, many participants also were challenged by their ability to organize, plan, and engage their class and students in a way that would support knowledge development and growth.

In general, knowledge of pedagogy is a requisite for educators at the primary and secondary levels; however, rules are not as strict within the collegiate environment. Furthermore, several advancements and theories of teaching and learning, but more specifically in adult learning, have shaped the field of education. Most often, athletic training educators possess advanced degrees such as masters and/or doctorates. While I do not disagree that professionals earning such degrees are experts of their domain, I do challenge the notion that all who have acquired such titles, masters and doctorate, are equally trained to convey their expertise uniformly through teaching. The notion lessens the importance of pedagogical knowledge and training, placing far greater emphasis on the regurgitation of content over the impact context has on learning and knowledge development. One participant demonstrates the importance of pedagogical knowledge to his/her development in his/her comparison of his/her teacher development prior to and after completing pedagogical coursework. He/She stated:

Honestly, the only thing that prepared me was the pedagogy courses that I have taken as part of my doctoral work. Before these classes, I would say that I was very unprepared and just taught the material. My eyes have been opened by these courses and now my teaching has improved and continues to improve.

As discussed in the study's literature review, there are several allied healthcare organizations, such as nursing, occupational therapy, and physical therapy that have recognized the impact and importance of pedagogy. Through their efforts, these organizations offer its educators many opportunities to develop instructional skills and knowledge of learning. Furthermore, occupational therapy and physical therapy have changed their standards for collegiate teaching, demanding each of their future educators obtain/possess a terminal degree for the purpose of enhancing scholarship in the profession. However, as stated previously, the degree of doctorate does not necessarily denote pedagogical training, nor does a master's degree. Rather than adopt this same philosophy, substituting the degree of doctor for actual pedagogical training, as athletic training education moves forward, the profession must consider the educational needs of its instructors, providing more pedagogical training opportunities and coursework while evaluating the teaching standards of athletic training instructors. In doing so athletic training educators would better represent and symbolize their held degrees, master and doctor, as well as, enhance scholarship within the profession and among the allied healthcare community.

Successes

Lack of knowledge of pedagogy was one of the primary intervening themes that inhibited many participants' self-confidence within this study. However, consistent with Kolb's (1984) theory of experiential learning, participants' self-confidence of pedagogical knowledge and skills was enhanced as a result of direct teaching experience. According to Boud, Keogh, and Walker (1985), Kolb's model of experiential learning represents "a simple description of a learning cycle – how experience is translated into concepts, which in turn are used as guides in the choice of

new experiences” (p. 12). Through these participants’ experiences teaching, 40% described professional growth specific to their abilities to engage their class and acquire and learn new teaching styles. One participant stated, “I often learned something about myself and my teaching styles from teaching them.” This is similar to Jarvis’s (1992) belief that often from teachers’ authentic actions, “teachers learn and grow from their students” (p. 114). Following Kolb’s model, participants within this study were afforded the opportunity to reflect upon, experiment with, and conceptualize their first experiences teaching into more informed methods of pedagogy, thus increasing instructors’ perceived preparedness and self-confidence for teaching within an ATEP.

In conjunction with the knowledge and expertise gained by these participants through experience, their commitment to learning and development and observations of students’ learning often empowered instructors, providing them with their first feelings of authenticity for their teachings. One participant stated, “making the connection with the student and seeing them ‘get it’. It was pretty cool to see that you were truly being an effective teacher by seeing the students understand the material you are teaching.” Jarvis (1992) suggests that teachers’ conscious efforts to “foster the growth and development of each other’s being” (p. 113) lead to one’s authenticity. Recently, Ashton (2010), Kreber (2010), Kreber, Klampfleitner, McCune, Bayne, and Knottenbelt (2007), and Cranton and Carusetta (2004) have explored authenticity and how it relates to and informs identity in teaching. These researchers agree that authenticity in teaching is a re-identification of one’s teaching identity through experience, observation, critical reflection, and the gain of greater self-knowledge. For many of the participants within this study feelings of authenticity came in many forms. Often, observing student learning, application of information and achievement, receiving positive feedback, as well as, their general experiences

as an instructor and reflection on those experiences, provided instructors with enhanced pedagogical knowledge and the feeling that their teachings and teaching styles were effective. One participant describes his/her greatest success and contributors to their authenticity through various moments:

When the students reported that I was an excellent instructor - and said I should take over all the lab courses. To witness student's applying the information, and successfully utilizing the skills that were taught in my courses - and the student's acknowledged how useful my instructional methods were.

It is apparent through this study's participant responses that they possess a deep desire and commitment to students' learning and the craft of teaching for enhancing student development, which has led to many authentic experiences. "My success was related to the students' success. When they achieved good scores and demonstrated proficiency then I felt like I was successful in my role." Authenticity is another component assisting with enhancing instructors' self-confidence and their perceived preparedness for teaching within an athletic training education program.

Conclusion

The participants within this study granted valuable insight into their perceived preparedness for teaching in an athletic training education program (ATEP). More specifically, participants' qualitative and quantitative responses provided rich detail regarding what, why, and how participants believe they were most and least prepared for teaching within an ATEP. While several areas of experience and experiential learning were paramount to these instructors' preparation and preparedness for teaching, their admitted need for pedagogy often influenced their perceptions.

Through this study, several adult learning theories aided in explaining and describing how athletic training educators develop their pedagogy and teaching strategies, thus enhancing their overall perceived preparedness. These adult learning theories include: experiential learning theory, constructivist theory, social cognitive theory, and mentoring theory. Within each of these theories is embedded the role of experience and how one creates, transforms, and develops meaning and knowledge from those experiences. Unlike many other professions, athletic training provides a distinct environment, which informally affords learners to develop pedagogical knowledge and pedagogical skills. From within the clinical field and classroom, as well as from athletic training's unique undergraduate and graduate mentorship programs, participants within this study have demonstrated how each environment provided them with their perceived foundations for teaching within an ATEP.

However, despite instructors' informally acclaimed knowledge of and preparation for teaching, there is, as noted through participants' responses, a thirst for a more formal pedagogical acquisition. As previously stated, often participants' views of their perceived preparedness to teach were clouded by their low self-confidence in their knowledge of formal pedagogy. While there may be no substitute for experience, reflections on and observations of teaching for enhancing teacher development, the question remains of what extent learners suffer while in the process of their teaching development? Currently, athletic training has placed high value on the development of its approved clinical instructors (ACI), with regards to the knowledge acquisition of teaching and learning styles and strategies for enhancing students' clinical learning. However, instructors within the classroom are not held to similar standards. Recently, other allied healthcare professions, such as nursing, occupational therapy, and physical therapy have made strong efforts to ensure its educators possess enhanced scholarship and

pedagogical knowledge within their educational systems. These efforts further demonstrate the importance of instructional knowledge for better supporting students' growth and development. Incorporating formal pedagogical knowledge and training within athletic training education may be but one way to bridge the gap between instructors' perceived preparedness to teach and their preparation for teaching within an ATEP.

Limitations

One of the strengths of this study was its sample size for gathering qualitative and quantitative data from athletic training instructors. However, in every study that involves the interpretation of qualitative results, one cannot dismiss researcher bias and how personal beliefs and values may be imposed on a study. Nevertheless, interrater reliability testing was conducted to help ensure participant responses were coded appropriately.

In addition, the primary concern of researchers should be to ensure the protection of their participants. In this study, results were predicated on the responses of participants in the form of a questionnaire. This method of data collection and inquiry is less intrusive than that of qualitative measure, therefore increasing the protection and safety of this study's participants. Often in qualitative research the researcher-participant relationship is questioned, challenging the power dynamics between these two forces for generating and guiding responses. Within this study, there were no relationships developed between researcher and participant. Each questionnaire completed by participants was completely anonymous. Although each participant completed informed consent forms, they remained completely confidential and separate from any and all responses within this study. Nevertheless, because both athletic training instructors and athletic training program directors were the primary participants for this study, one cannot

neglect to observe the potential impact of power relationship between athletic training program director and athletic training instructor for influencing participation in this study.

Another factor that can influence a study's outcome is participant bias. Many participants within this study indicated that pedagogical knowledge and training are important to being or becoming an athletic training instructor (see table 27). As a result, participants may have been influenced by their beliefs to answer questions within the study in a particular direction, which they believed could impact the future of athletic training education and instruction. While limiting such a phenomenon is an arduous task for researchers, the design of this study and the steps taken to reduce influencing participant responses (see section III) assisted in reducing participant bias.

Recommendations

The process of teaching and learning is an extremely complex phenomenon. Understanding how to teach and concretely knowing what has prepared one to teach has plagued educators and researchers for decades. Adding to its complexity are the rare teaching and learning environments found within athletic training education. Although there are vast opportunities for athletic trainers to develop their skills and knowledge experientially within its environment, further inquiry is needed regarding its effectiveness for developing pedagogical knowledge. The combination of instructors' perceived low self-confidence within various aspects of their teaching knowledge and abilities and instructors' and program directors' attitudes and beliefs surrounding the importance of pedagogical knowledge and its implementation within athletic training education illuminates a gap between athletic training educators' preparedness and confidence for teaching within an ATEP. Therefore, as a short-term goal, this researcher suggests that more structured teacher training programs be implemented within athletic training

to support athletic trainers' transitions from the field to the classroom, while also enhancing their pedagogical knowledge and confidence. In addition, as athletic training continues to grow, so will the need for more competent, confident, and skilled educators. In consequence, long-term consideration is needed with regards to formal pedagogical education and its place within undergraduate and graduate athletic training curricula. Aside from keeping athletic training education competitive with other allied healthcare professions, such as nursing, occupational therapy, and physical therapy, pedagogy within athletic training education will further support scholarship, leadership, and learners within athletic training.

As previously discussed in this dissertation, athletic trainers can work in a variety of settings, including: high schools, colleges and universities, hospitals and clinics, professional sports, the industrial and occupational health setting, and military. Typically, some of these would not require prior knowledge of pedagogy, nor would a new or recent graduate find themselves in a teaching or supervisory role. Therefore, implementing such pedagogical programs or courses would be inappropriate at the undergraduate level as opposed to the graduate level. While graduate athletic training courses in pedagogy can be found within 16 collegiate institutions, as noted in Section I, it can be argued that this number is inadequate to meet the growing demands for educators within athletic training.

In an ideal world, pedagogical coursework would become a requirement within graduate level athletic training education. Consistent with this study's analysis, data, and findings, such programs and coursework would be experiential in nature, similar to the current constructs of athletic training education and its emphasis on classroom and clinical experience. Following Kolb's (1984) experiential learning model, graduate pedagogical coursework within athletic training would facilitate a deeper understanding of the teaching practice and consist of several

concrete, reflective, analytical, and active experiences. Within this program or coursework, teachers would guide learners through various instructional experiences, learners would observe and reflect on the teachings of others, analyze current educational research, and actively experiment through mentoring. Using Kolb's experiential learning model as a course template affords instructors and learners with the opportunity and flexibility to explore numerous theories of teaching and learning, laying the foundations for prospective athletic training instructors. Following this model, with an emphasis on pedagogy, would support learners and future instructors as they move into various roles within athletic training.

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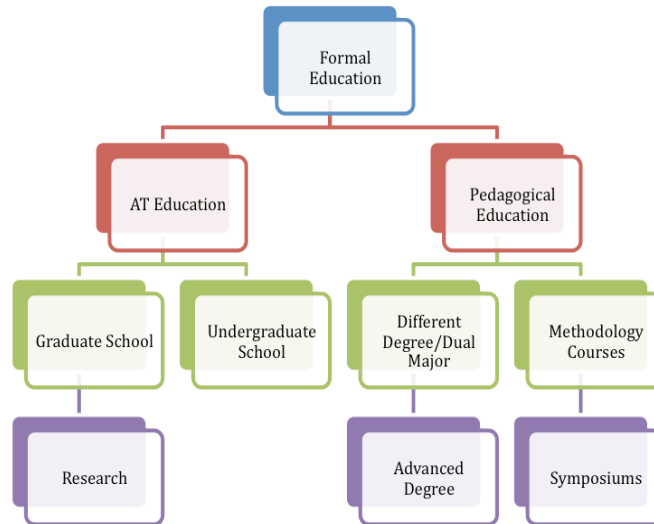
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Appendix A Coding Samples

Question # 3

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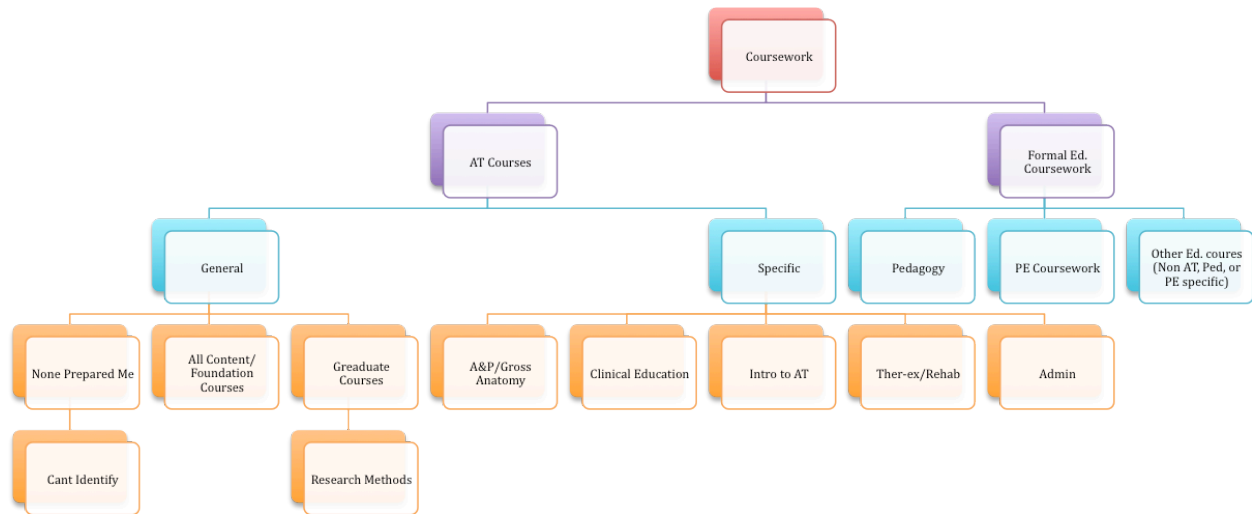
What do you feel most prepared you for your current role/responsibility of teaching within an undergraduate program? How did this prepare you?



Question 4

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What courses in your undergraduate and/or graduate experience do you believe best prepared you for your current teaching role/responsibility? Why?



Question 5

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What aspects of your undergraduate and/or graduate athletic training experience do you believe best prepared you for your current teaching role/responsibility? How did these prepare you?

